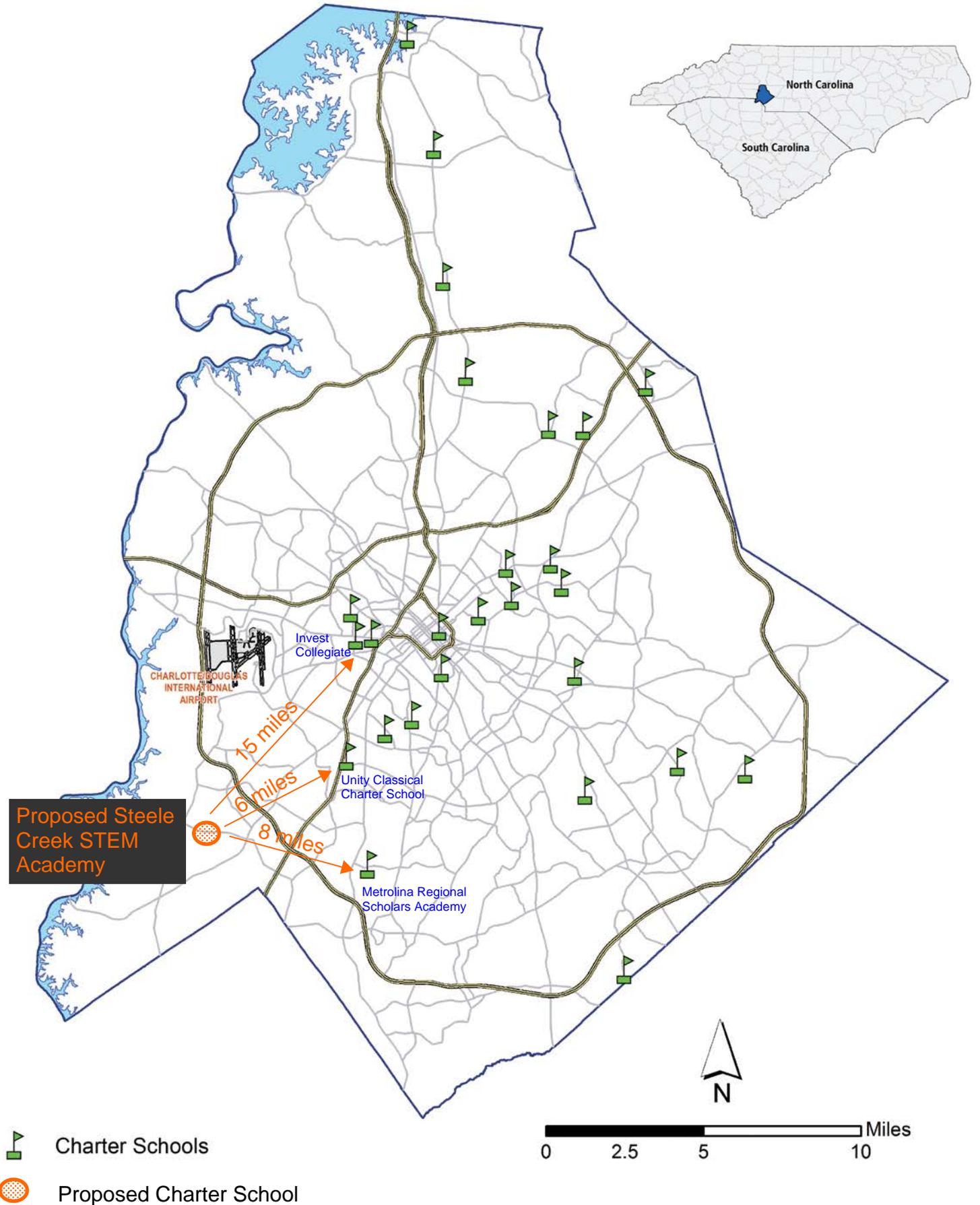


Charter Schools in Mecklenburg County

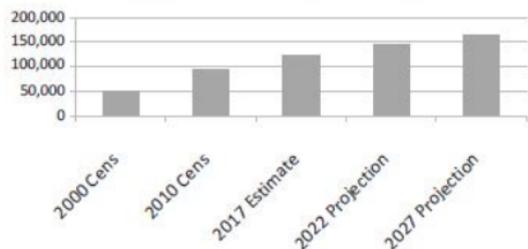


Population & Household Summary

Population & Change

	0 - 5 mi	0-15 min
High Needs Charter Schools	-	-
High Needs Public Schools	-	-
2017 Estimate	85,814	122,703
2022 Projection	101,246	144,255
2027 Projection	114,551	162,938
Growth 2000-2010	116.1%	98.3%
Growth 2010-2017	29.3%	29.3%
Growth 2017-2022	18.0%	17.6%
Growth 2022-2027	13.1%	13.0%

Change in Population - 0-15 min



Households

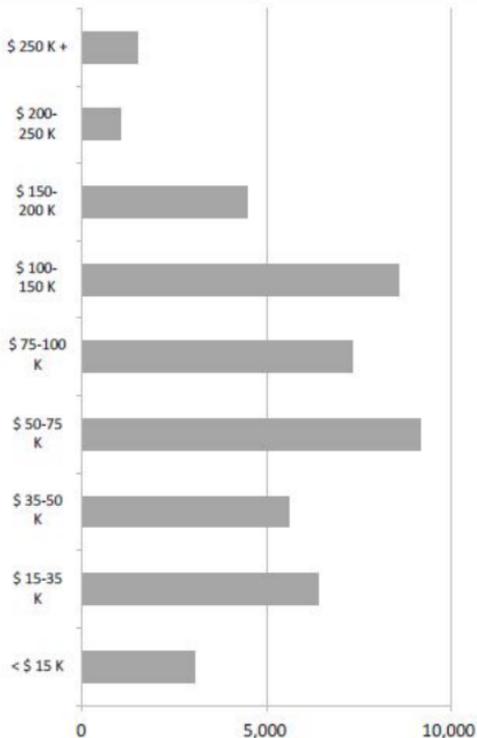
	0 - 5 mi	0-15 min
2017 Estimate	32,066	46,741
Growth 2000-2010	108.9%	97.0%
Growth 2010-2017	28.4%	29.5%
Growth 2017-2022	17.6%	17.6%
Growth 2022-2027	12.9%	12.9%

Household Income

Household & Per Capita Income

	0 - 5 mi	0-15 min
Average HH Income	\$ 100,606	\$ 92,379
Median HH Income	\$ 79,480	\$ 73,119
Per Capita Income	\$ 37,596	\$ 35,204

Number of Households by Income - 0-15 min

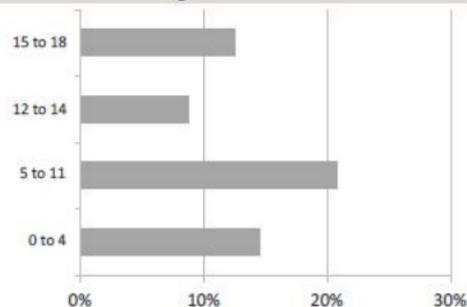


Age Distribution

Age by Cohort

	0 - 5 mi	0-15 min
0 to 4	5,864	8,806
5 to 11	8,910	12,688
12 to 14	3,840	5,319
15 to 18	5,615	7,617

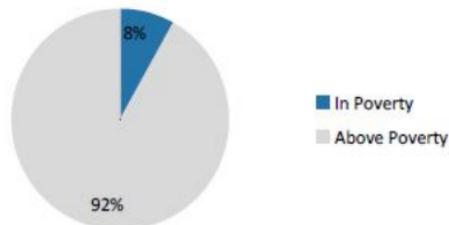
% Age - 0-15 min



Poverty

Households by Poverty	0 - 5 mi	0-15 min
In Poverty	2,148	3,785
Above Poverty	29,918	42,956

Poverty - 0-15 min



Executive Summary

Building on the priority to support science, technology, engineering, and mathematics (STEM) education set by the Obama Administration that is reflected in several of the Administration's initiatives,² the U.S. Department of Education (the Department) is releasing a report outlining a vision to carry on that legacy in the coming decade. This vision was informed by the key observations, considerations, and recommendations put forth by a varying range of STEM education thought leaders and experts from the field during a series of 1.5-day workshops convened by the Department in collaboration with American Institutes for Research (AIR). This report is a resource that provides examples, not endorsements, of resources that may be helpful in reaching the STEM 2026 vision as outlined by the field experts.

The complexities of today's world require all people to be equipped with a new set of core knowledge and skills to solve difficult problems, gather and evaluate evidence, and make sense of information they receive from varied print and, increasingly, digital media. The learning and doing of STEM helps develop these skills and prepare students for a workforce where success results not just from what one knows, but what one is able to do with that knowledge.³ Thus, a strong STEM education is becoming increasingly recognized as a key driver of opportunity, and data show the need for STEM knowledge and skills will grow and continue into the future. Those graduates who have practical and relevant STEM precepts embedded into their educational experiences will be in high demand in all job sectors. It is estimated that in the next five years, major American companies will need to add nearly 1.6 million STEM-skilled employees (Business Roundtable & Change the Equation, 2014). Labor market data also show that the set of core cognitive knowledge, skills, and abilities that are associated with a STEM education are now

in demand not only in traditional STEM occupations, but in nearly all job sectors and types of positions (Carnevale, Smith, & Melton, 2011; Rothwell, 2013).

The nation has persistent inequities in access, participation, and success in STEM subjects that exist along racial, socioeconomic, gender, and geographic lines, as well as among students with disabilities. STEM education disparities threaten the nation's ability to close education and poverty gaps, meet the demands of a technology-driven economy, ensure national security, and maintain preeminence in scientific research and technological innovation.

In recognition of the widening skills and opportunity gaps in STEM, the Obama Administration has initiated several efforts to motivate action. In 2010, President Obama announced the launch of Change the Equation, a CEO-led effort to improve STEM education, as part of the Administration's larger Educate to Innovate campaign. In addition, under this Administration, the Committee on STEM Education (CoSTEM), comprised of several federal agencies—including all mission-science agencies and the Department—is facilitating a cohesive national strategy to increase the impact of federal investments in STEM teaching and learning. In 2013, CoSTEM put out a Five-Year Federal Science Technology, Engineering, and Mathematics Education Strategic Plan. In January 2016, Obama announced a bold Computer Science for All initiative; and the Elementary and Secondary Education Act (ESEA), as reauthorized under the Every Student Succeeds Act (ESSA) in December 2015, identifies all four STEM disciplines, including engineering and computer science, as fundamental components of a well-rounded education for all children. ESSA also includes provisions to promote local innovation and investments in what works to improve STEM teaching and learning.⁴ These are just a few examples of the focused attention being placed on STEM at the national level to generate change and improvement at the state and local levels.

This report is a complementary effort, resulting from a Department-led effort to gain insight into the latest research and thinking about how to improve STEM teaching and learning, including

how to ensure the engagement and success of the full diversity of the nation's learners. In 2015, the

Department, in collaboration with AIR, invited nearly 30 experts and thought leaders in STEM teaching and learning to participate in a series of discussion-based workshops to exchange ideas and develop recommendations for the future of STEM education. The project contributors were asked to draw from their own experiences, and their knowledge of the evidence behind examples of innovative and promising new approaches taking hold in communities across the nation.

This report summarizes the results of these workshop discussions and outlines what emerged from the experts' recommendations; namely, an aspirational vision (hereafter referred to as "STEM 2026") for STEM education to promote lifelong learning among all youth and in all communities. In recognition of the challenges to transforming STEM education on a large scale, the STEM 2026 vision presented in this report is meant only as starting point upon which key stakeholder groups, including policymakers, researchers, educators, and industry leaders, as well as the broader public, can build. The goal of this vision is not to establish a prescribed set of activities but to motivate actions, including the development of communities of practice (CoP), that help build a stronger evidence base for what STEM teaching and learning experiences work best in particular contexts and to serve diverse learners.

U.S. Department of Education (the Department)
John B. King, Jr., Ed.D. Secretary
Office of Innovation and Improvement
Russell Shilling, Ph.D. Executive Director of STEM
September 2016
provided.
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This report is available on the Department's

Grade	Reading Proficiency					
	2016-2017	1	2	3	4	5
3	46	60	68	75	75	78
4	47	55	68	74	78	80
5	42	55	60	70	75	80
6	44	50	62	65	75	78
7	45	N/A	55	68	70	80
8	42	N/A	N/A	65	75	75

Grade	Math Proficiency					
	2016-2017	1	2	3	4	5
3	49%	60	65	70	75	78
4	57%	62	65	70	75	78
5	58%	63	68	73	78	80
6	45%	60	70	70	63%	
7	37%	55	67	75	75	
8	36%	N/A	N/A	70	78	79
Math I	95%	N/A	N/A	90%	90	9

Grade	Science Proficiency					
	2017	1	2	3	4	5
5	67	70	73	76	80	85
8	61	N/A	N/A	80	82	85

K-6 SCOPE AND SEQUENCE

Kindergarten

	Reading	Writing	Social Studies	Science	Math	Art	Music	PE
Aug-Sept	We Are Readers (Bk 1)	Launching the Writer's Workshop (Bk1)	Welcome to School -location -rules -responsibilities	Earth Systems, Structures and Processes (Weather Over Time)	Number Names and Counting in Sequence	Art Around Us	Proper Technique when Singing and Playing Music	Feelings and How to Express Them
Oct-Nov	Emergent Reading...Looking Closely at Familiar Texts (If...Then...)	Looking Closely: Observing, Labeling, and Listing Like Scientists (If...Then)	-Time -History -Where Do You Live? -Timelines	Matter: Properties and Change	Count to Tell "How Many"/ Quantity	Language of Visual Arts: Lines, Shapes, Color, Texture	Rhythms Using Body, Instruments, or Voice	Handwashing, Tooth Brushing, and Taking Care of Ourselves
Nov-Dec	Super Powers: Reading with Print Strategies and Sight Word Power (Bk 2)	Writing for Readers (Bk 2)	-Needs and Wants -The First Thanksgiving -Earth -Seasons	StemScopes/ Engineering	Compare Numbers to Determine More, Less, and Equal	Viewpoint	2-Pitch Melodic Patterns and Vocal Timbres (whispering, speaking, sing, and shouting)	Preventing Injury
Jan-Feb	Bigger Books, Bigger Reading Muscles (Bk 3)	How-to Books: Writing to Teach Others (Bk 3)	-Weather -Good Citizens -Maps and Globes -Which Way?	Forces and Motion: Organisms in an Environment	Measureable Attributes of Length	Design: repetition and contrast	Beat	Healthy Relationships and Interactions

Feb-Mar	Growing Expertise in Little Books: Reading for Information (If...Then...)	Persuasive Writing of All Kinds (Bk 4)	-Holidays -Presidents and Patriots -American Monuments	StemScopes/ Engineering	Sort Objects by Attribute and Count "How Many" in Set	Art to Show Feelings	Rhythms and Symbols	Nutrition
April-May	Becoming Avid Readers	All About Books (If...Then)	-Celebrate America -Rights and Responsibilities	Comparing Living and Nonliving Things	Identify Shapes and Describe Positions	Art: Then, Now, and In the Future	Recognizing and Reading Notes (quarter and quarter rests)	Household Dangers And Safety
May-June	Readers are Resourceful: Tackling Hard Words and Tricky Parts in Books (If...Then...)	Crafting Stories Using All We Know About Narrative Writing	-Consumers and Producers -Jobs People Do -Money	StemScopes/ Engineering	Understand Shapes Can Be Different Sizes	Art from Other Places	Recognizing Elements (pitch, tempo) of Music	Germ

First Grade

	Reading	Writing	Social Studies	Science	Math	Art	Music	PE
August	Reading Routines	Writing Routines	-Welcome to School -Location and Distance -Rules and Responsibilities	Forces and Motions: Push/Pull	Number Sense	Art Expression: lines, shapes, colors, textures, form, and space	Three-Pitch Melodic Patterns	Coping Skills

Sept-Oct	Building Good Reading Habits (Bk 1)	Small Moments: Writing with Focus, Detail, and Dialogue (Bk 1)	-Good Citizens -Time -History (Traditions)	StemScopes/ Engineering	Continue to Learn Counting Sequence to 120	Symbols and Themes	Change in Dynamics and Tempo	Germ Prevention
Oct-Nov	Word Detectives Use All They Know to Solve Words (New Book in 2016)	Writing How-to Books (If...Then... or Kindergarten, Bk 3)	-Past, Present, and Future -Changes in Transportation -Fact or Fiction	Earth in the Universe: Earth, Moon, and Sun	Joining and Separating Can Be Used to Make Two Sets Have Equal Quantity	Perspective	Rhythm Patterns for Quarter Notes, Quarter Rests, and Beamed Eighth Notes	In Case of Emergency
Nov-Dec	Learning About the World (Bk 2)	Nonfiction Chapter Books (Bk 2)	-The First Thanksgiving -Maps -Earth	StemScopes/ Engineering	Addition and Subtraction to 20	Design: repetition, emphasis, contrast, and balance	Moving to Respond to Prominent Characteristics: Rhythm, Melodic Contour, Dynamics, and Form	Personal Space
Jan-Feb	Readers Get to Know Characters by Performing Their Books (If...Then...)	Writing Reviews	-Who's in Charge? -I Am Responsible -Celebrate America	Natural Resources	Measurement and Length	Art in Different Cultures	Music Used in Customs and Traditions from other Cultures	Eating Well and Staying Active
Feb-Mar	Readers Have Big Jobs to Do: Fluency, Phonics, and Comprehension (Bk 3)	Poetry and Songs (If...Then... or 2003 Units of Study)	-American Monuments -Patriotism and Presidents Rights and Responsibilities	StemScopes/ Engineering	Time Concepts	Historic vs. Contemporary Art	Classifying Timbre of Pitched or Unpitched Instruments and Sounds	Medicine: Good and Bad

April-May	Meeting Characters and Learning Lessons: A Study of Story Elements	From Scenes to Series: Writing Fiction (Book 4)	-Communities -Changes in Communities -Goods and Services	Ecosystems	Represent and Interpret Data	Interdisciplinary Art	Read and Use Notation to Compose	Making Good Choices
May-June	Reading Non-fiction Cover to Cover: Nonfiction Book Clubs (If...Then...)	Writing Like Scientists	-Jobs People Do -Money and Trade -Spend or Save?	Basic Needs of Living Organisms	Understanding Shapes and Their Attributes	Opinions About Art	Recognizing Patterns in Music	Influences on Us

Second Grade

	Reading	Writing	Social Studies	Science	Math	Art	Music	PE
August	Reading Routines	Writing Routines	-Welcome to Second Grade -Where Is the United States? -Rules and Responsibilities -Good Citizens	Forces and Motion: Sound	Use Addition and Subtraction to Solve Problems	Talking Art: Using Art Vocabulary When Discussing Artwork: lines, shapes, colors, textures, form, space, and value	Apply Changes in Music to the Elements of Dynamics, Tempo, Melody, and Form	Healthy Feelings and Actions
Sept-Oct	Second Grade Reading Growth Spurt (Book 1)	Lessons from the Masters: Improving Narrative Craft (Book 1)	-History and Time -Technology -Explorers	Matter: How Properties Change	Share Fairly to Create Equal Groups (Foundation of Multiplicaiton)	"The Story" of Art Design: repetition, movement, emphasis, contrast, balance, and proportion	Rhythm Patterns for Half and Quarter Notes, Half and Quarter Rests, and Beamed Eighth Notes	Keeping Our Teeth, Skin, and Bodies Healthy
Nov-Dec	Becoming Experts: Reading Nonfiction (Book 2)	A How-To Guide to Nonfiction (New Book in 2016)	-North American Indian Nations -Pilgrims Come to America --Changes in America	StemScopes/ Engineering	Understand Place Value in Base Ten	People, Neighborhood, or Communities Art	Creating Rhythm Patterns: half and quarter notes, half and quarter rests, and beamed eighth notes in	Healthy vs. Harmful Interactions

			-Changes for American Indians				duple and triple meter	
January	Studying Characters and Their Stories (If...Then)	Writing Gripping Fictional Stories (If...Then...or Grade 1, Bk 4)	-Using Maps -Earth	Patterns and Factors of Weather	Adding and Subtracting (with two digit numbers, within 100)	Point of View and Imagery	Three-Pitch Songs in Notation, Singing, or Instruments	Nutrition
Feb-Mar	Bigger Books Mean Amping Up Reading Power (Bk3)	Poetry: Big Thoughts in Small Packages (Bk 4)	-Presidents and Patriots -Celebrate America -American Cultures	StemScopes/ Engineering	Measure Using Nonstandard Units to Compare Lengths of Objects/ Relate Length to Addition	Art Representing Heritage, Customs, and Traditions of Various Cultures	Analyzing Music Patterns, Dynamics, and Forms	Active Lifestyle
Mar-Apr	Reading Nonfiction Cover to Cover: Nonfiction Book Clubs (If...Then...)	Poetry and Songs (If...Then... or 2003 Units of Study)	-Government and Citizenship -Rights and Responsibilities -Scientists, Artists, and Inventors	Animal Life Cycles	Use of Time and Money	Famous Artistic Movements and Artists that Represent Them	Music as Custom	Medicine: Good and Bad
May-June	Series Book Clubs	From Scenes to Series: Writing Fiction (Book 4)	-Families and Trade -Resources and Choices -Goods and Services -Money and Markets	Evolution and Genetics of Organisms	Represent and Interpret Data Reason with Shapes and Their Attributes	Regional Differences and Impact on Art	Introduction of Instruments' Sounds	Influences on Us

Third Grade

	Reading	Writing	Social Studies	Science	Math	Art	Music	Healthful Living
August	Reading Routines	Writing Routines	-Using Geographic Tools -Basic World Geography	Forces and Motion: Speed, Direction, and Gravity	Represent and Solve Problems Using Multiplication and Division	Art Talk: Using Artistic Terms Lines, shapes, colors, textures, form, space, and value	Major Tones Scale Using Voice	Strong Feelings
Sept-Oct	Building a Reading Life (Book 1)	Crafting True Stories (Bk 1)	-Geographic Overview of the US and NC -Physical Geographic Communities -Human Environment Adaptation	StemScopes/ Engineering	Build Foundation for Multiplication through Repeated Addition	Artists and Their Feelings Design: repetition, movement, emphasis, contrast, balance,	Apply Elemental Changes (dynamics, tempo, timbre, texture)	Preventing Illness

			Reason and Logic: Young George Washington			proportion, harmony, and unity		
Oct-Nov	Mystery: Foundational Skill in Disguise (New Books in 2016)	The Art of Information Writing (Book 2)	-Local Community -Community Leadership Roles -Believers Who Make Good Citizens	Properties and Change of Matter	Use Place Value Understanding and Properties of Operations to Perform Multi-Digit Arithmetic	Theme in Masters' Works	Recognizing and Reading Notes: in $\frac{3}{4}$ and $\frac{4}{4}$ meter signatures	Taking Care of Yourself
Nov-Dec	Reading to Learn: Grasping Main Ideas and Text Structures (Bk 2)	Changing the World: Persuasive Speeches, Petitions, and Editorials (Bk 3)	-Civic Responsibilities and -Community Volunteerism Making Choices and Impacting Communities	StemScopes/ Engineering	Understand Fractions as Numbers	Elements of Art: lines, shapes, colors, textures, form, space, and value	Role of the Conductor and Parts of Orchestra	Preventing Injury
Jan 3rd-9th	Optional Weeklong Intensive (i.e. Greening the School, Etc.)							
Jan-Feb	Character Studies (Bk 3)	Baby Literary Essay (If...Then...)	-Economics -Scarcity and Choice -Economic Independence -Chronological Thinking and Historic Analysis -Historical and Contemporary	Conservation and Transfer of Energy	Solve Problems Involving Measurement and Estimation of Intervals of Time, Liquid Volumes, and Masses of Objects	Art as Expression and Historical Account	Music as Expression	Respect and Healthy Relationships

			Changes in Communities					
March	Test Prep/ Unit of Your Choice							Nutrition
April-May	Research Clubs: Elephants, Penguins, and Frogs, Oh My! (If...Then...)	Writing About Research	-Family Structures and Roles - Neighborhoods , Then and Now -American Ideals	StemScopes/ Engineering	Represent and Interpret Data	Recycled Art	Create Rhythmic and Melodic Ostinato Accompaniments	Risk-Reducing Behaviors
May-June	Design Your Own Unit OR Learning From Countries Around the World (If...Then...)	Once Upon a Time: Adapting and Writing Fairy Tales (Book 4) OR Design Your Own Unit	-Communities and Culture -Folktales, Legends, and Fictional Characters	Earth in the Universe	Reason with Shapes and Their Attributes (Quadrilateral/ Fractions)	Classify Artists, Styles, and Movements	Analyzing Music	Making Good Choices for Your Body

Fourth Grade

	Reading	Writing	Social Studies	Science	Math	Art	Music	PE
August	Reading Routines	Writing Routines	-Where Are We? -What a Great Place	Forces and Motion: Magnets	Use the Four Operations with Whole	Abstract Art: Personal Choice	Vocal Ostinatos, Partner Songs, Counter-	Managing Stress

					Numbers to Solve Problems		Melodies, and Rounds In Two or More Parts	
Sept-Oct	Interpreting Characters: The Heart of the Story (Bk 1)	The Arc of the Story: Writing Realistic Fiction (Bk 1)	-Water Resources -The First People in North Carolina -Coastal Plains People	Rocks and Minerals	Build Understanding of Multiplication and Division	Elements of Art to Develop Composition	Melodic Movement through Pentatonic Melodies on the Treble Shelf	Recognizing and Treating Illness
Oct-Nov	Reading the Weather, Reading the World (Bk 2)	Boxes and Bullets: Personal and Persuasive Essays (Bk 2)	-Piedmont Natives -Cherokee Nations -Government Functions	Energy in Motion	Generate and Analyze Patterns (i.e. Add 3)	Principles of Design in Relation to Each Other	Rhythm Pattern: whole, half, dotted half, quarter, and eighth notes and rests in 2/4, 3/4, and 4/4 meter signatures	Respiratory System and Tobacco Use On It
Nov-Dec	Historical Fiction Clubs (Bk 4)	Historical Fiction Writing (If...Then...) OR Design Your Own Unit	-European Exploration -The Lost Colony -The Carolina Charter -Colonial Life- A Hard Life	Day, Night, and the Moon	Generalize Place Value Understanding for Multidigit Whole Numbers	Ideas and Imagery from North Carolina	Notating Rhythm, Meter, and Dynamics	Health Products
Jan 3rd-9th	Optional Weeklong Intensive (i.e. Greening the School, Etc.)							
Jan-Feb	Interpretation Book Clubs	The Literary Essay: Writing About Fiction (Bk 4)	-Colonial Conflicts -Colonial Unrest in -First Freedom	Fossils	Place Value and Properties of Operations	Visual Arts Affected and Reflected in Culture, Traditions, and History of NC	Examining Music from Other Cultures	Sports and Recreation Safety

March	Test Prep/ Unit of Your Choice		Transportation Communication -Industry		Fractions: Equivalence and Ordering	Key North Carolinian Artists and Classify NC Artists	Opinions About Music	First Aid (Heimlich Maneuver)
April-May	Reading History: The American Revolution	Bringing History to Life (Bk 3)	-Resources -Buy!Buy!Buy! -Spending, Borrowing, and Saving	Adaptation	Solving Problems Involving Measurement and Conversion of Measurements from Larger Units to Smaller Units	How Time Influences Ideas, Issues, and Themes Found in Art	Western Orchestral Categories: wind, string, percussion, and brass	Respect and Preventing Conflict
May-June	Nonfiction Book Clubs: Author Studies OR Interpretation Book Clubs (If...Then...)	Journalism (If...Then...)	-Religious Groups of North Carolina -Art, Music, and Crafts -Our Diverse Society -Cultural Traditions	Food as Fuel	Represent and Interpret Data Identify Lines, Angles, and Properties of Shapes	Effect of Geographic Location and Physical Environment on the Media and Subject Matter of NC Art and Artists	North Carolina and Music	Physical Changes

Fifth Grade

	Reading	Writing	Social Studies	Science	Math	Art	Music	PE
August	Reading Routines	Writing Routines	World/ U.S. Geography	Force, Motion, and the Relationship Between Them	Write and Interpret Numerical Expressions	Realistic, Abstract, or Non-Objective	Interpreting Rhythm Patterns	Strong Feelings and What to Do
Sept-Oct	Interpretation Book Clubs: Analyzing Themes (Bk 1) OR Character Studies (Grade 3, Book 3; If you make this choice it will impact Jan-Feb below)	Narrative Craft (Bk 1)	-U.S.States and Regions -Continental U.S. -How Did It All Begin? -Spanish and Portuguese Explorers -English and French Explorers	Mass, Energy, and Motion	Analyze Patterns and Relationships (i.e. "Add 3")	Apply Principles of Design to Create Composition	Create Short Songs and Instrumental Pieces	Personal Wellness and Safety
Oct-Nov	Tackling Complexity: Moving Up Levels of Nonfiction (Bk 2)	Feature Articles (If...Then)	-Dividing the New World -Early English Colonies -New English Colonies	Heating and Cooling	Understanding the Place Value System	Global Environment as Inspiration	Rhythmic Compositions (whole, half, quarter rests; beamed eighth notes in duple,	Healthy Hygiene and Changing Bodd

			-Middle Colonies				triple, and common time)	
Nov-Dec	Argument and Advocacy: Researching Debatable Issues (Bk 3)	The Researched-Based Argument Essay (Bk 3)	-Southern Colonies -Slavery in the Colonies -Mounting Tensions -Declaring Independence	Weather Events and Patterns	Perform Operations with Multi-Digit Whole Numbers and with Decimals to Hundredths	Personal Voice and Choice	Examining the Conductor in Action for Elements of Music	Social Pressures and Communication
Jan 3rd-9th	Optional Weeklong Intensive (i.e. Greening the School, Etc.)							
Jan-Feb	Reading Like a Fan OR Interpretation Book Clubs: Analyzing Themes (Bk 1)	The Literary Essay: Opening Texts and Seeing More (New Book in 2016)	-The Revolutionary War -Growing Pains -The Constitution -Plans for a New Government -Why Do We Need Government?	Structures and Systems of Organisms	Use Equivalent Fractions as a Strategy to Add and Subtract Fractions	Visual Arts Have Affected and Are Reflected in the Culture, Traditions, and History of the United States	Western Orchestral Instruments	Nutrition for Wellness
March	Test Prep/ Unit of Your Choice		-Louisiana Purchase -War of 1812 -Early Westward Expansion -Westward Ho!	StemScopes/ Engineering	Solve Measurement Problems Using Time, Length, and Mass	Key Contributions of North American Artists in History/ Classify	Comparing World Instruments and Western	Alcohol and Its Effects
April-May	Reading in the Content Area	The Lens of History: Research Reports (Bk 2)	-Industry v. Agriculture -Conflicts and Compromises	Interdependence of Plants and Animals	Represent and Interpret Data and Graph Points on the	Traditions and Values Found in Art	Music in the United States	Healthy decision-

					Coordinate Plane to Solve Real-World and Mathematical Problems			making and strategies
May-June	Fantasy Book Clubs: The Magic of Themes and Symbols (Bk 4)	Shaping Texts: From Essay and Narrative to Memoir (Bk 4)	-The War Continues - Reconstruction	Genetics: Comparing Organisms	Classify Two-Dimensional Figures Into Categories Based on Their Properties	Critiquing Art	Analyzing Music	Avoiding danger

Sixth Grade

	Reading	Writing	Social Studies	Science	Math	Art	Music	PE
August	Reading Routines	Writing Routines	-Planet Earth -Earth (Geography)	Waves	Understand Ratios	Elements of Art and Role in Planning and Creating Personal Art	Expressive Elements (dynamics, timbre, blending, phrasing)	Goal-setting to Benefit Emotional Well-Being
Sept-Oct	Turning Every Kid Into a Reader- and a	Personal Narrative: Creating	-Earliest Humans -Historic Times Begin	Atoms	Apply and extend previous understandings			Positive Stress Management

	Character Analyst	Powerful Life Stories (Bk 1)	-People of Phoenicia -Life in Ancient Egypt -Pyramids African Kingdoms -Ancient Israelites		of multiplication and division to divide fractions by fractions	Imagery as a Means of Self-Expression	Standard Notation Symbols	
Nov-Dec	Social Issues Book Clubs: Developing Critical Literacies	The Literary Essay: From Character to Compare/Contrast (Bk 2)	-Ancient Greeks -Greek Civilization -Alexander the Great -Ancient India -Ancient China	Transfer and Interaction of Energy and Matter	Multiplication with Multi-Digit Numbers and Find Common Factors and Multiples	2-D and 3-D Media, Including Digital	Constructing Arrangements	Wellness, Disease Prevention, and Recognition of Symptoms
Jan-Feb	Nonfiction: A Study of Text Complexity	Research-Based Information Writing: Books, Websites, and Presentations (Bk 3)	-Ancient Japan -Life in Rome -Ancient Rome Pt II - Barbarians	Universe: Celestial Bodies and Their Motion	Positive and Negative Numbers	Visual Arts of World Civilizations and Societies		Healthy and Effective Interpersonal Communication and Relationships
Mar-Apr	Test Prep or a Unit of Your Choice/ Testing/ Break		Christianity -Islamic Empire -Middle Ages -Crusades Bring Change -Age of Exploration	Structure of the Earth	Addition and Subtraction of Algebraic Expressions	Analyze Historical Art	Analyzing and Critiquing Music	Skills for Healthy Relationships

Apr-May	Design Your Own Unit OR Fantasy Book Clubs	Design Your Own Unit OR Fantasy Writing (If...Then...)	-Maya, Aztec, and Inca -The Renaissance -Reformation	Plants	Creating Graphs to Represent Data	Influences on Art	Music from Ancient Societies	Changes of Puberty
May-June	Nonfiction Reading Across Text Sets	Persuasive Essays (If...Then...)	-Oceania -Wrapping It Up (Culture/Geography)	Flow of Energy in Ecosystems	Solve Real-World and Mathematical Problems Using Area, Surface Area, and Volume	Mixed Media	Health of Musicians	Healthy Choices: Nutrition Substance Use/Abuse

Grade K

CONTENT AREA / STRAND NC.K.P.

Physical Science

Standards

Titles That Meet

INDICATOR K.P.1.2.a.

Straight

STC Kindergarten TG: Exploring Forces and Motion

STC Kindergarten Big Book: Exploring Forces and Motion

EIE: A Work in Process: Improving Play Dough Process

INDICATOR K.P.1.2.b.

Zigzag

INDICATOR K.P.1.2.c.

Round and round

INDICATOR K.P.1.2.d.

Back and forth

CLARIFYING OBJECTIVE K.P.2.1.

Classify objects by observable physical properties (including size, color, shape, texture, weight and flexibility).

CLARIFYING OBJECTIVE K.P.2.2.

Compare the observable physical properties of different kinds of materials (clay, wood, cloth, paper, etc) from which objects are made and how they are used.

STC Kindergarten TG: Exploring My Weather

STC Kindergarten Big Book: Exploring My Weather

CONTENT AREA / STRAND NC.K.E.

Earth Science

Standards

Titles That Meet

CLARIFYING OBJECTIVE K.E.1.1.

Infer that change is something that happens to many things in the environment based on observations made using one or more of their senses.

STC Kindergarten TG: Exploring My Weather

STC Kindergarten Big Book: Exploring My Weather

EIE: [Catching the Wind: Designing Windmills](#)

EIE: A Sticky Situation: Designing Walls

CLARIFYING OBJECTIVE K.E.1.2.

Summarize daily weather conditions noting changes that occur from day to day and throughout the year.

CLARIFYING OBJECTIVE K.E.1.3.

Compare weather patterns that occur from season to season.

Grade K

CONTENT AREA / STRAND NC.K.L.

Life Science

Standards

Titles That Meet

CLARIFYING OBJECTIVE K.L.1.1.

Compare different types of the same animal (i.e. different types of dogs, different types of cats, etc.) to determine individual differences within a particular type of animal.

STC Kindergarten TG: Exploring Plants and Animals

STC Kindergarten Big Book: Exploring Plants and Animals

STC Kindergarten TG: Exploring My Weather

STC Kindergarten Big Book: Exploring My Weather

STC Kindergarten TG: Exploring Plants and Animals

INDICATOR K.L.1.2.a.

Structure

INDICATOR K.L.1.2.b.

Growth

INDICATOR K.L.1.2.c.

Changes

INDICATOR K.L.1.2.d.

Movement

INDICATOR K.L.1.2.e.

Basic needs

Grade 1

CONTENT AREA / STRAND NC.1.P.

Physical Science

Standards

Titles That Meet

CLARIFYING OBJECTIVE 1.P.1.1.

Explain the importance of a push or pull to changing the motion of an object.

This standard is addressed in STC Kindergarten Exploring Forces and Motion

CLARIFYING OBJECTIVE 1.P.1.2.

Explain how some forces (pushes and pulls) can be used to make things move without touching them, such as magnets.

EIE: A Work in Process: Improving a Play Dough Process

EIE: Get to The Other Side: Designing Bridges

CLARIFYING OBJECTIVE 1.P.1.3.

Predict the effect of a given force on the motion of an object, including balanced forces.

CONTENT AREA / STRAND NC.1.E.

Earth Science

Standards

Titles That Meet

CLARIFYING OBJECTIVE 1.E.1.1.

Recognize differences in the features of the day and night sky and apparent movement of objects across the sky as observed from Earth.

STC Elementary 3rd Edition TG: Weather

EIE: **Catching the Wind: Designing Windmills**

EIE: **A Sticky Situation: Designing Walls**

CONTENT AREA / STRAND NC.1.E.

Earth Science

Standards

Titles That Meet

CLARIFYING OBJECTIVE 1.E.2.1.

Summarize the physical properties of Earth materials, including rocks, minerals, soils and water that make them useful in different ways.

STC Elementary 3rd Edition TG: Soils

STC Elementary Literacy Series: Soils

KIDS DISCOVER: Soil

CLARIFYING OBJECTIVE 1.E.2.2.

Compare the properties of soil samples from different places relating their capacity to retain water, nourish and support the growth of certain plants.

CONTENT AREA / STRAND NC.1.L.

Life Science

Standards

Titles That Meet

CLARIFYING OBJECTIVE 1.L.1.1.

Recognize that plants and animals need air, water, light (plants only), space, food and shelter and that these may be found in their environment.

STC Elementary 3rd Edition TG: Organisms:

STC Elementary Literacy Series: Organisms:

KIDS DISCOVER: Organisms:

Grade 1

CLARIFYING OBJECTIVE 1.L.1.2.
Give examples of how the needs of different plants and animals can be met by their environments in North Carolina or different places throughout the world.

STC Elementary 3rd Edition TG: Organisms
STC Elementary Literacy Series: Organisms
KIDS DISCOVER: Organisms
EIE: The Best of Bugs: Designing a Pollinator

CLARIFYING OBJECTIVE 1.L.1.3.
Summarize ways that humans protect their environment and/or improve conditions for the growth of the plants and animals that live there. (e.g., reuse or recycle products to avoid littering.)

STC Elementary 3rd Edition TG: Solids and Liquids
STC Elementary Literacy Series: Solids and Liquids

CONTENT AREA / STRAND NC.1.L.

Life Science

Standards

Titles That Meet

CLARIFYING OBJECTIVE 1.L.2.1.
Summarize the basic needs of a variety of different plants (including air, water, nutrients, and light) for energy and growth.

STC Elementary 3rd Edition TG: Organisms
STC Elementary Literacy Series: Organisms
KIDS DISCOVER: Organisms

CLARIFYING OBJECTIVE 1.L.2.2.
Summarize the basic needs of a variety of different animals (including air, water, and food) for energy and growth.

Grade 2

CONTENT AREA / STRAND NC.2.P.

Physical Science

Standards

Titles That Meet

CLARIFYING OBJECTIVE 2.P.1.1.

Illustrate how sound is produced by vibrating objects and columns of air.

STC Elementary 3rd Edition TG: Sound
STC Elementary Literacy Series: Sound
KIDS DISCOVER: The 5 Senses

CLARIFYING OBJECTIVE 2.P.1.2.

Summarize the relationship between sound and objects of the body that vibrate - eardrum and vocal cords.

CLARIFYING OBJECTIVE 2.P.2.1.

Give examples of matter that change from a solid to a liquid and from a liquid to a solid by heating and cooling.

STC Elementary 3rd Edition TG: Changes
STC Elementary Literacy Series: Changes
KIDS DISCOVER: Changes

EIE: A Work in Process: Improving a Play Dough Process

CLARIFYING OBJECTIVE 2.P.2.3.

Compare what happens to water left in an open container over time as to water left in a closed container.

CONTENT AREA / STRAND NC.2.E.

Earth Science

Standards

Titles That Meet

INDICATOR 2.E.1.2.a.

Temperature

INDICATOR 2.E.1.2.b.

Wind direction

INDICATOR 2.E.1.2.c.

Wind speed

INDICATOR 2.E.1.2.d.

Precipitation

CLARIFYING OBJECTIVE 2.E.1.3.

Compare weather patterns that occur over time and relate observable patterns to time of day and time of year.

STC Elementary 3rd Edition TG: Weather
STC Elementary Literacy Series: Weather
KIDS DISCOVER: Weather
EIE: Catching the Wind: Designing Windmills

Grade 2	
CONTENT AREA / STRAND NC.2.L.	
Life Science	
Standards	Titles That Meet
INDICATOR 2.L.1.1.a. Birth	STC Elementary 3rd Edition TG: The Life Cycle of Butterflies STC Elementary Literacy Series: The Life Cycle of Butterflies KIDS DISCOVER: Butterflies
INDICATOR 2.L.1.1.b. Developing into an adult	EIE: The Best of Bugs: Designing a Pollinator
INDICATOR 2.L.1.1.c. Reproducing	
INDICATOR 2.L.1.1.d. Aging and death	
CLARIFYING OBJECTIVE 2.L.1.2. Compare life cycles of different animals such as, but not limited to, mealworms, ladybugs, crickets, guppies or frogs.	
CLARIFYING OBJECTIVE 2.L.2.1. Identify ways in which many plants and animals closely resemble their parents in observed appearance and ways they are different.	

Science and Literacy Grades K-2

Plants/Trees

GRL	TITLE/ISBN	SUMMARY
B	Autumn Leaves 978-1-56065-958-7 \$5.95	Text and photographs present the different types and colors of leaves found in the Northern Hemisphere in autumn.
B	Beans 978-1-56065-946-4 \$5.95	Text and photographs describes planting, growing, picking and eating green beans.
C	Carrots 978-1-56065-947-1 \$5.95	Text and photographs describes the growing cycle of the carrot, from planting through cooking and eating.
C	Eating Apples 978-1-56065-950-1 \$5.95	Text and photographs describe different ways to enjoy eating apples including eating them whole, in slices, cooked, in pies, and juiced.
C	Sunflowers 978-1-56065-948-8 \$5.95	Text and photographs depict the life cycle of the sunflower, from seeds to sprouts to flowers that finally turn again to seeds.
D	Apple Trees 978-1-56065-949-5 \$5.95	Text and photographs describe an apple tree as it goes through the seasons.
E	From Blossom to Fruit 978-1-56065-952-5 \$5.95	Text and photographs describe the growth of an apple from blossom to ripe fruit, ready to be picked.
E	From Bud to Blossom 978-1-56065-951-8 \$5.95	Text and photographs describe the stage in the life cycle of apples when the buds on a tree turn into leaves and apple blossoms.
E	Picking Apples 978-1-56065-953-2 \$5.95	Text and photographs describe the process of getting apples from the tree to trucks that are used to ship them everywhere.
H	Fruit Group 978-0-7368-6922-5 \$6.95	Text and photographs present the fruit group, the foods in this group, and examples of healthy eating choices.

Animals

D	Baby Birds 978-0-7368-8193-7 \$5.95	Describes the development of baby birds after they hatch, including their feeding, growth of feathers, and first flight.
D	Birds 978-0-7368-8782-3 \$5.95	Text and photographs introduce birds as pets, their features and characteristics, and information on the basic care of birds.
D	Cats 978-0-7368-8783-0 \$5.95	Text and photographs introduce cats as pets, their features and characteristics, and information on the basic care of cats.
D	Dogs 978-0-7368-8784-7 \$5.95	Text and photographs introduce dogs as pets, their features and characteristics, and information on the basic care of dogs.
D	Fish 978-0-7368-8785-4 \$5.95	Text and photographs introduce fish as pets, their features and characteristics, and information on the basic care of fish.
D	Guinea Pigs 978-0-7368-9146-2 \$5.95	Text and photographs introduce guinea pigs as pets, their features and characteristics, and information on the basic care of guinea pigs.

GRL	TITLE/ISBN	SUMMARY
D	Hamsters 978-0-7368-8786-1 \$5.95	Text and photographs introduce hamsters as pets, their features and characteristics, and information on the basic care of hamsters.
D	Horses 978-0-7368-9147-9 \$5.95	Text and photographs introduce horses as pets, their features and characteristics, and information on the basic care of horses.
D	Rabbits 978-0-7368-8787-8 \$5.95	Text and photographs introduce rabbits as pets, their features and characteristics, and information on the basic care of rabbits.
D	Snakes 978-0-7368-9148-6 \$5.95	Text and photographs introduce snakes as pets, their features and characteristics, and information on the basic care of snakes.
D	Turtles 978-0-7368-9149-3 \$5.95	Text and photographs introduce turtles as pets, their features and characteristics, and information on the basic care of turtles.
E	Black Bears 978-0-7368-8097-8 \$5.95	Text and photographs describe the appearance, behavior, and habitat of black bears.
E	Brown Bears 978-0-7368-8098-5 \$5.95	Text and photographs describe the appearance, behavior, and habitat of brown bears.
E	Chickens on the Farm 978-0-7368-9142-4	Text and photographs describe chickens and how they are raised.
E	Cows on the Farm 978-0-7368-9143-1	Text and photographs describe cows and how they are raised.
E	Crabs 978-0-7368-8216-3 \$5.95	Text and photographs introduce the physical characteristics and behavior of crabs.
E	Dolphins 978-0-7368-9080-9 \$5.95	Text and photographs introduce the physical characteristics and behavior of dolphins.

Insects and Bugs

D	Beetles 978-0-7368-4880-0 \$5.95	Introduces some of the characteristics of beetles that includes information on their color, size, wings, jaws, and eating habits.
D	Crickets 978-0-7368-8208-8 \$5.95	Introduces some of the characteristics of crickets that includes information on their color, their habitat, and wings.
D	Ladybugs 978-0-7368-4885-5 \$5.95	Introduces some of the characteristics of ladybugs that includes information on their color, and their two sets of wings.
D	Water Bugs 978-0-7368-9091-5 \$5.95	Introduces some of the characteristics of water bugs that includes information on their habitat, how they move, breathe, eat, and how their legs are shaped.
E	Dragonflies 978-0-7368-8209-5 \$5.95	Introduces some of the characteristics of dragonflies that includes information on their color, their habitat, eyes, and wings.
E	Ants 978-0-7368-4884-8 \$5.95	Introduces some of the physical characteristics of ants that includes information on their color and different body parts.
E	Bumble Bees 978-0-7368-8207-1 \$5.95	Introduces some of the physical characteristics of bumble bees that includes information on their eyes, tongue, and wings.
E	Butterflies 978-0-7368-4883-1 \$5.95	Introduces some of the characteristics of butterflies that includes information on their color, wings, legs, and migration.
E	Fireflies 978-0-7368-8210-1 \$5.95	Introduces some of the characteristics of fireflies that includes information on their color, their body shape, and their lantern which makes light.
E	Honey Bees 978-0-7368-4882-4 \$5.95	Introduces some of the characteristics of honey bees that includes information on their color, their wings, their five eyes, and how they collect pollen and nectar from flowers.
E	Mosquitoes 978-0-7368-8214-9 \$5.95	Introduces some of the characteristics of mosquitoes that includes information on the sounds they make, their antennae, and their eating habits.
E	Moths 978-0-7368-9087-8 \$5.95	Introduces some of the characteristics of moths that includes information on their color, their wings, and how they scare predators.

Space

C	What Is in Space? 978-0-7368-1705-9	Photos and text present what can be found in outer space.
I	Moon: Revised Edition 978-1-4296-2811-2 \$5.95	Photographs and simple text introduce the features of the Moon, Earth's only natural satellite.
I	Planets: Revised Edition 978-1-4296-2814-3	Photographs and simple text introduce the planets in our solar system.

Solids Liquids and Gases

E	Back and Forth 978-0-7368-8607-9 \$5.95	Text and photographs provide examples of back and forth movement, including the pendulum on a clock, a child in a rocking chair, and waves on the shore.
E	Circular Movement 978-0-7368-8608-6	Text and photographs show objects which move in circles.
E	Push and Pull 978-0-7368-8609-3	Simple text and photographs describe and illustrate push and pull movement.
E	Start and Stop 978-0-7368-8610-9	Text and photographs illustrate starting and stopping.

Weather and Seasons

B	Autumn Leaves 978-1-56065-958-7 \$5.95	Text and photographs present the different types and colors of leaves found in the Northern Hemisphere in autumn.
C	Warm Clothes 978-1-56065-959-4 \$5.95	Text and photographs present the clothing worn to keep warm as fall changes to winter.
E	Animals in the Fall 978-1-56065-961-7 \$5.95	Text and photographs present the behavior changes of animals as winter approaches, such as growing thicker fur, migrating, and hibernating.
E	Cold Day 978-0-7368-8620-8 \$5.95	Text and photographs describe and illustrate a cold day, including what people wear, see, and do.
E	Fall Harvest 978-1-56065-960-0 \$5.95	Text and photographs describe how several different crops, including pumpkins, apples, wheat, sugar beets, corn, potatoes, and cranberries are harvested.
E	Hot Day 978-0-7368-8621-5 \$5.95	Text and photographs describe some things that people see and do on a hot day.
E	Rainy Day 978-0-7368-8622-2 \$5.95	Text and photographs depict a rainy day, including the formation of rain and the actions of the people out in it.
E	Snowy Day 978-0-7368-8623-9 \$5.95	Text and photographs depict a snowy day, including the formation of snow and the actions of the people out in it.
E	Sun and Rain 978-0-7368-9825-6 \$4.25	Phonics Readers is a recognized leader in helping you teach phonics and phonemic awareness, within the context of content-area reading. Content area focus: Weather; Phonics Skills: short u, l-blends

Simple Machines

F	What Are Levers? 978-0-7368-9137-0	Text and photographs present levers and their function as a simple machine.
F	What Are Wedges? 978-0-7368-9140-0	Text and photographs present wedges and their function as a simple machine.
G	What Are Inclined Planes? 978-0-7368-9136-3 \$5.95	Text and photographs present inclined planes and their function as a simple machine.
G	What Are Pulleys? 978-0-7368-9138-7	Text and photographs present pulleys and their function as a simple machine.
G	What Are Screws? 978-0-7368-9139-4	Text and photographs present screws and their function as a simple machine.

Grade 3

CONTENT AREA / STRAND NC.3.P.

Physical Science

Standards

Titles That Meet

CLARIFYING OBJECTIVE 3.P.1.1.

Infer changes in speed or direction resulting from forces acting on an object.

STC Elementary 3rd Edition TG: Land and Water: briefly addressed
This standard is also addressed in STC Elementary 3rd Edition TG: Motion and Design, placed in 5th grade.

CLARIFYING OBJECTIVE 3.P.1.2.

Compare the relative speeds (faster or slower) of objects that travel the same distance in different amounts of time.

STC Elementary 3rd Edition TG: Land and Water: briefly addressed

CLARIFYING OBJECTIVE 3.P.1.3.

Explain the effects of earth's gravity on the motion of any object on or near the earth.

EIE: A long Way Down: Designing Parachutes

CLARIFYING OBJECTIVE 3.P.2.1.

Recognize that air is a substance that surrounds us, takes up space and has mass.

This standard is addressed in STC Elementary 3rd Edition TG: Sound, placed in 2nd Grade.

CLARIFYING OBJECTIVE 3.P.2.2.

Compare solids, liquids, and gases based on their basic properties.

STC Elementary 3rd Edition TG: Chemical Tests
STC Elementary Literacy Series: Chemical Tests

CLARIFYING OBJECTIVE 3.P.2.3.

Summarize changes that occur to the observable properties of materials when different degrees of heat are applied to them, such as melting ice or ice cream, boiling water or an egg, or freezing water.

STC Elementary 3rd Edition TG: Chemical Tests
STC Elementary Literacy Series: Chemical Tests

CLARIFYING OBJECTIVE 3.P.3.1.

Recognize that energy can be transferred from one object to another by rubbing them against each other.

This standard is addressed in STC Elementary 3rd Edition TG: Motion and Design, placed in 5th grade.

Grade 3

CONTENT AREA / STRAND NC.3.E.

Earth Science

Standards

Titles That Meet

CLARIFYING OBJECTIVE 3.E.2.1.

Compare Earth's saltwater and freshwater features (including oceans, seas, rivers, lakes, ponds, streams, and glaciers).

STC Elementary 3rd Edition TG: Land and Water

STC Elementary Literacy Series: Land and Water

KIDS DISCOVER: Earth

CLARIFYING OBJECTIVE 3.E.2.2.

Compare Earth's land features (including volcanoes, mountains, valleys, canyons, caverns, and islands) by using models, pictures, diagrams, and maps.

A Sticky Situation: Designing Walls

CONTENT AREA / STRAND NC.3.L.

Life Science

Standards

Titles That Meet

INDICATOR 3.L.2.1.a.

Roots - absorb nutrients

STC Elementary 3rd Edition TG: Plant Growth and Development

STC Elementary Literacy Series: Plant Growth and Development

EIE: Just Passing Through: Designing Membranes

EIE: Thinking Inside the Box: Designing Plant Packages

INDICATOR 3.L.2.1.b.

Stems - provide support

INDICATOR 3.L.2.1.c.

Leaves - synthesize food

INDICATOR 3.L.2.1.d.

Flowers - attract pollinators and produce seeds for reproduction

CLARIFYING OBJECTIVE 3.L.2.2.

Explain how environmental conditions determine how well plants survive and grow.

CLARIFYING OBJECTIVE 3.L.2.4.

Explain how the basic properties (texture and capacity to hold water) and components (sand, clay and humus) of soil determine the ability of soil to support the growth and survival of many plants.

STC Elementary 3rd Edition TG: Land and Water

EIE: Water Water, Everywhere: Designing Filters

Grade 4

CONTENT AREA / STRAND NC.4.P.

Physical Science

Standards

Titles That Meet

CLARIFYING OBJECTIVE 4.P.1.1.

Explain how magnets interact with all things made of iron and with other magnets to produce motion without touching them.

STC Elementary 3rd Edition TG: Electric Circuits
STC Elementary Literacy Series: Electric Circuits
EIE: An Alarming Idea: Designing Circuits

CLARIFYING OBJECTIVE 4.P.1.2.

Explain how electrically charged objects push or pull on other electrically charged objects and produce motion.

CLARIFYING OBJECTIVE 4.P.2.1.

Compare the physical properties of samples of matter: (strength, hardness, flexibility, ability to conduct heat, ability to conduct electricity, ability to be attracted by magnets, reactions to water and fire).

STC Elementary 3rd Edition TG: Electric Circuits
STC Elementary Literacy Series: Electric Circuits

CLARIFYING OBJECTIVE 4.P.2.2.

Explain how minerals are identified using tests for the physical properties of hardness, color, luster, cleavage and streak.

STC Elementary 3rd Edition TG: Rocks and Minerals
STC Elementary Literacy Series: Rocks and Minerals
KIDS DISCOVER: Rocks
EIE: Solid as a Rock: Replicating an Artifact

CLARIFYING OBJECTIVE 4.P.2.3.

Classify rocks as metamorphic, sedimentary or igneous based on their composition, how they are formed and the processes that create them.

CLARIFYING OBJECTIVE 4.P.3.1.

Recognize the basic forms of energy (light, sound, heat, electrical, and magnetic) as the ability to cause motion or create change.

STC Elementary 3rd Edition TG: Electric Circuits

CLARIFYING OBJECTIVE 4.P.3.2.

Recognize that light travels in a straight line until it strikes an object or travels from one medium to another, and that light can be reflected, refracted, and absorbed.

STC Elementary 3rd Edition TG: Rocks and Minerals

Grade 4

CONTENT AREA / STRAND NC.4.E.

Earth Science

Standards

Titles That Meet

CLARIFYING OBJECTIVE 4.E.2.1.

Compare fossils (including molds, casts, and preserved parts of plants and animals) to one another and to living organisms.

STC Elementary 3rd Edition TG: Rocks and Minerals

STC Elementary Literacy Series: Rocks and Minerals

KIDS DISCOVER: Rocks

CLARIFYING OBJECTIVE 4.E.2.2.

Infer ideas about Earth's early environments from fossils of plants and animals that lived long ago.

CLARIFYING OBJECTIVE 4.E.2.3.

Give examples of how the surface of the earth changes due to slow processes such as erosion and weathering, and rapid processes such as landslides, volcanic eruptions, and earthquakes.

CONTENT AREA / STRAND NC.4.L.

Life Science

Standards

Titles That Meet

CLARIFYING OBJECTIVE 4.L.1.1.

Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.

STC Elementary 3rd Edition TG: Animal Studies

STC Elementary Literacy Series: Animal Studies

KIDS DISCOVER: Rainforests

CLARIFYING OBJECTIVE 4.L.1.2.

Explain how animals meet their needs by using behaviors in response to information received from the environment.

EIE: Water, Water Everywhere: Designing Filters

CLARIFYING OBJECTIVE 4.L.1.3.

Explain how humans can adapt their behavior to live in changing habitats (e.g., recycling wastes, establishing rain gardens, planting trees and shrubs to prevent flooding and erosion).

CLARIFYING OBJECTIVE 4.L.1.4.

Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats.

EIE: A Slick Situation: Cleaning an Oilspill

Grade 5

CONTENT AREA / STRAND NC.5.P.

Physical Science

Standards

Titles That Meet

CLARIFYING OBJECTIVE 5.P.1.1.

Explain how factors such as gravity, friction, and change in mass affect the motion of objects.

STC Elementary 3rd Edition TG: Motion and Design

STC Elementary Literacy Series: Motion and Design

CLARIFYING OBJECTIVE 5.P.1.2.

Infer the motion of objects in terms of how far they travel in a certain amount of time and the direction in which they travel.

EIE: Marvelous Machines: Making Work Easier

CLARIFYING OBJECTIVE 5.P.1.3.

Illustrate the motion of an object using a graph to show a change in position over a period of time.

EIE: Lighten Up: Designing Lighting Systems

CLARIFYING OBJECTIVE 5.P.1.4.

Predict the effect of a given force or a change in

CONTENT AREA / STRAND NC.5.P.

Physical Science

Standards

Titles That Meet

CLARIFYING OBJECTIVE 5.P.2.1.

Explain how the sun's energy impacts the processes of the water cycle (including, evaporation, transpiration, condensation, precipitation and runoff).

This standard is addressed in STC Elementary 3rd Edition TG: Land and Water, placed at 3rd grade.

KIDS DISCOVER: Ecology

CONTENT AREA / STRAND NC.5.L.

Life Science

Standards

Titles That Meet

CLARIFYING OBJECTIVE 5.L.1.1.

Explain why some organisms are capable of surviving as a single cell while others require many cells that are specialized to survive.

STC Elementary 3rd Edition TG: Microworlds

STC Elementary Literacy Series: Microworlds

KIDS DISCOVER: Microbes

EIE: NO Bones About It: Designing Knee Braces

CLARIFYING OBJECTIVE 5.L.1.2.

Compare the major systems of the human body (digestive, respiratory, circulatory, muscular, skeletal, and cardiovascular) in terms of their functions necessary for life.

Grade 5	
CONTENT AREA / STRAND NC.5.L.	
Life Science	
Standards	Titles That Meet
<p>CLARIFYING OBJECTIVE 5.L.2.1. Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands).</p>	<p>STC Elementary 3rd Edition TG: Ecosystems: STC Elementary Literacy Series: Ecosystems: KIDS DISCOVER: Ecology:</p>
<p>CLARIFYING OBJECTIVE 5.L.2.2. Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).</p>	<p>STC Elementary 3rd Edition TG: Ecosystems STC Elementary Literacy Series: Ecosystems KIDS DISCOVER: Ecology</p> <p>EIE: A Slick Situation: Cleaning an Oil Spill</p> <p>STC Elementary 3rd Edition TG: Microworlds KIDS DISCOVER: Microbes</p>
<p>CLARIFYING OBJECTIVE 5.L.2.3. Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.</p>	<p>STC Elementary 3rd Edition TG: Ecosystems STC Elementary Literacy Series: Ecosystem KIDS DISCOVER: Ecology</p> <p>STC Elementary 3rd Edition TG: Microworlds STC Elementary Literacy Series: Microworlds</p>

Science and Literacy Grades 3-5

Plants/Trees

E	From Bud to Blossom 978-1-56065-951-8 \$5.95	Text and photographs describe the stage in the life cycle of apples when the buds on a tree turn into leaves and apple blossoms.
E	Picking Apples 978-1-56065-953-2 \$5.95	Text and photographs describe the process of getting apples from the tree to trucks that are used to ship them everywhere.
H	Fruit Group 978-0-7368-6922-5 \$6.95	Text and photographs present the fruit group, the foods in this group, and examples of healthy eating choices.
H	Fruits 978-0-7368-9620-7 \$6.95	Text and photographs introduces the fruit of plants, and includes information on how they grow, along with their uses.
H	Maple Trees 978-0-7368-8093-0 \$5.95	Text and photographs describe the trunks, branches, leaves, seeds, and life cycle of maple trees.
H	Oak Trees 978-0-7368-8094-7 \$5.95	Text and photographs describe the trunks, branches, leaves, and seeds of oak trees.
H	Palm Trees 978-0-7368-8095-4 \$5.95	Text and photographs describe the trunks, leaves, and fruit of palm trees.
H	Pine Trees 978-0-7368-8096-1 \$5.95	Text and photographs describe the trunks, branches, needles, and seeds of pine trees.
H	Seeds 978-0-7368-9623-8 \$6.95	Text and photographs introduce the seeds of plants, including how they grow, along with their uses.

H	Vegetable Group 978-0-7368-6928-7 \$6.95	Text and photographs present the vegetable group, the foods in this group, and examples of healthy eating choices.
I	Flowers 978-0-7368-9619-1 \$6.95	Text and photographs introduce the flowers found on plants, and includes information on how they grow, along with their uses.
I	Grain Group 978-0-7368-6923-2 \$6.95	Text and photographs present the grain group, the foods in the group, and examples of healthy eating choices.
I	Leaves 978-0-7368-9621-4 \$6.95	Text and photographs introduce leaves found on trees and plants, and includes information on how they grow, along with their uses.

Animals

E	Rays 978-0-7368-9081-6 \$5.95	Text and photographs introduce the physical characteristics and behavior of rays.
E	Rays [Scholastic] 978-1-4296-3677-3	Text and photographs introduce the physical characteristics and behavior of rays.
E	Sea Turtles 978-0-7368-9082-3 \$5.95	Text and photographs introduce the physical characteristics and behaviors of sea turtles.
E	Sea Turtles [Scholastic] 978-1-4296-3676-6	Text and photographs introduce the physical characteristics and behaviors of sea turtles.
E	Seals 978-0-7368-9083-0 \$5.95	Text and photographs introduce the physical characteristics and behaviors of seals.
E	Sharks 978-0-7368-9084-7 \$5.95	Text and photographs introduce the physical characteristics and behaviors of sharks.
E	Sharks 978-1-4296-3675-9	Text and photographs introduce the physical characteristics and behaviors of sharks.
E	Whales 978-0-7368-9085-4 \$5.95	Text and photographs introduce the physical characteristics and behaviors of whales.
F	Bird Eggs 978-0-7368-8194-4 \$5.95	Describes and identifies various bird eggs by their size, color, and pattern, including those of the American robin, the common loon, a cardinal, ostrich, owl, and a blue jay.
F	Bird Nests 978-0-7368-8196-8 \$5.95	Describes the nests of various types of birds and the materials used to build them, including the grass and twig nests of robins, the moss and spider web nests of hummingbirds, and the big stick nests of eagles.
F	Cats on the Farm 978-0-7368-3422-3	Text and photographs describe cats and the lives they live on the farm.
F	Cows and Their Calves 978-0-7368-4644-8 \$6.95	Text and photographs describe the lives of baby cows, also known as calves, from birth to early maturity.
F	Wolves 978-0-7368-9497-5	Text and photographs introduce the habitat, appearance and behavior of wolves.
G	Camels 978-0-7368-9488-3 \$5.95	Text and photographs introduce the habitat, appearance, and behavior of camels living in the desert.
G	Chimpanzees 978-0-7368-9608-5 \$5.95	Text and photographs introduce the physical characteristics and behavior of chimpanzees that live in tropical rain forests.
G	Corals 978-0-7368-8215-6 \$5.95	Text and photographs introduce the physical characteristics and behaviors of corals, and how they create coral reefs.
G	Diplodocus 978-0-7368-6909-6 \$6.95	Text and illustrations present the life of the dinosaur known as the diplodocus. Includes information on how this prehistoric animal looked, along with its behavior.
G	Dogs and Their Puppies 978-0-7368-4641-7 \$6.95	Text and photographs describe the lives of young dogs or puppies from birth to early maturity.
G	Dogs on the Farm 978-0-7368-9378-7	Text and photographs describe dogs and their lives on the farm.
G	Ducks on the Farm 978-0-7368-3423-0	Text and photographs describe ducks and how they are raised.

Insects and Bugs

G	Cicadas 978-0-7368-6902-7	Describes the physical characteristics, behavior, and habits of cicadas.
G	Crickets 978-0-7368-5095-7	Describes the physical characteristics, behavior, and habits of crickets.
G	Grasshoppers 978-0-7368-5096-4	Describes the physical characteristics, behavior, and habits of grasshoppers.
G	Ladybugs 978-0-7368-5097-1	Describes the physical characteristics, behavior, and habits of ladybugs.
G	Monarch Butterflies 978-0-7368-8200-2 \$5.95	An introduction to the physical characteristics and behavior of monarch butterflies, including their migration.
G	Praying Mantises 978-0-7368-5098-8 \$6.95	Describes the physical characteristics, behavior, and habits of the praying mantis.
G	Spiders 978-0-7368-5099-5	Describes the physical characteristics, behavior, and habits of spiders.
H	Beetles 978-0-7368-6124-3 \$6.95	Text and photographs describe the physical characteristics of the insect known as the beetle.
H	Centipedes 978-0-7368-6901-0	Describes the physical characteristics, behavior, and habits of centipedes.
H	Wasps 978-0-7368-6127-4 \$6.95	Text and photographs describe the physical characteristics of the insect known as the wasp.
J	Living Lights 978-1-4048-0447-0 \$7.95	Describes the physical characteristics, life cycle, and behavior of fireflies. Includes life cycle and activity.
K	Hungry Hoppers 978-1-4048-0448-7 \$7.95	Describes the physical characteristics, life cycle, and behavior of grasshoppers. Includes anatomy diagram and activity.
K	Spotted Beetles 978-1-4048-0444-9 \$7.95	Describes the physical characteristics, life cycle, and behavior of ladybugs. Includes anatomy diagram and activity.
K	Tiny Workers 978-1-4048-0443-2 \$7.95	Describes the physical characteristics, life cycle, and behavior of ants. Includes anatomy diagram and activity.
L	Busy Buzzers 978-1-4048-0445-6 \$7.95	Describes the physical characteristics, life cycle, and behavior of honeybees. Includes activity.
L	Night Fliers 978-1-4048-0446-3 \$7.95	Describes the physical characteristics, life cycle, and behavior of moths. Includes anatomy diagram and activity.

Space

I	Planets: Revised Edition 978-1-4296-2814-3	Photographs and simple text introduce the planets in our solar system.
I	Stars: Revised Edition 978-1-4296-2816-7	Simple text and photographs introduce stars and their features.
I	Sun: Revised Edition 978-1-4296-2837-2	Simple text and photographs introduce the Sun and its features.

Solids Liquids and Gases

E	Zigzag Movement 978-0-7368-8612-3 \$5.95	Text and photographs show people and things which make zigzag movement including sewing machines, sailboats, people playing checkers, and people skiing.
F	Vibrations 978-0-7368-8611-6 \$5.95	Describes vibration and shows different objects which vibrate including hummingbird wings, drums, and guitar strings.
G	Living and Nonliving 978-1-4296-2888-4 \$5.95	Text and photographs present living and nonliving things and explains their differences.
G	Solids, Liquids, Gases 978-1-4296-2892-1	Text and photographs introduce matter, solids, liquids, and gases.

H	Natural and Human-Made 978-1-4296-2889-1	Text and photographs introduce natural and human-made resources.
H	We Need Water 978-0-7368-4878-7 \$5.95	Outlines some of the reasons that water is necessary for life, from growing plants, cooking food, and washing things to staying cool.
I	Rock Basics 978-1-4296-2890-7 \$5.95	Text and photographs introduce rocks and some of their sizes, shapes, and uses.
I	Water as a Gas 978-0-7368-4876-3 \$5.95	Text and photographs presents facts about the properties and behavior of water in the state of a gas.
I	Water as a Liquid 978-0-7368-4875-6 \$5.95	Simple text presents facts about water in its liquid state, where it is found, and some of its properties.
I	Water as a Solid 978-0-7368-4873-2 \$5.95	Text and photographs presents facts about water in its solid state, its properties, and its uses.
I	Water Basics 978-1-4296-2893-8	Text and photographs introduce water and the water cycle.
J	Soil Basics 978-1-4296-2891-4 \$5.95	Text and photographs introduce soil including what it's made of and some of the different types of soil.
L	Matter 978-0-7368-5157-2 \$6.95	Introduces matter and its three forms as solid, a liquid, and a gas. Includes an activity and information on scientist Jacques Charles.
L	Temperature 978-0-7368-5159-6 \$6.95	Introduces temperature, along with melting, freezing, and how to measure temperature. Includes an activity, and information on Anders Celsius.

Weather and Seasons

E	Sunny Day 978-0-7368-8624-6 \$5.95	Text and photographs describe some things that people see and do on a sunny day.
E	Windy Day 978-0-7368-8625-3 \$5.95	Text and photographs present a windy day, including what the wind does and how people react and use the wind for their various activities.
H	Spring 978-1-56065-844-3 \$5.95	Text and photographs depict the weather, plants, animals, and activities of spring.
H	We Need Water 978-0-7368-4878-7 \$5.95	Outlines some of the reasons that water is necessary for life, from growing plants, cooking food, and washing things to staying cool.
I	Autumn 978-0-7368-4981-4 \$5.95	Text and photographs depict the weather, plants, animals, and activities of autumn.
I	Day and Night 978-0-7368-9615-3 \$6.95	Introduces how day and night occur, and explains why they are one of nature's patterns.
I	Hibernation 978-0-7368-9616-0 \$6.95	Provides an introduction to hibernation, and explains how and why some animals prepare for and experience hibernation each year.
I	Keeping Water Clean 978-0-7368-4877-0	Text and photographs describe water pollution, how it spreads, and its effects.
I	Phases of the Moon 978-0-7368-9617-7 \$6.95	Introduces moon phases, including why they occur and what the different phases are called.
J	Wind 978-0-7368-4919-7 \$5.95	Text and photographs present wind, how it is formed, and how it affects the Earth and people. Includes information on a gale, a hurricane, and a tornado.
K	Eye of the Storm 978-1-4048-1845-3 \$7.95	Describes the process of how hurricanes can form. Also includes explanations of tropical storms and a storm surge.
K	Lightning 978-0-7368-4915-9	Text and photographs explain what lightning is and how it forms.
K	Rain 978-0-7368-4917-3	Describes what rain is and the cycle that repeatedly brings water to the Earth.
K	Rumble, Boom! 978-1-4048-1847-7 \$7.95	Describes the process of how thunderstorms can form. Also includes explanations of downdrafts, storm cells, supercells, electric energy, thunder, lightning, squall lines, hail, and wind bursts.
K	Saving Water 978-0-7368-5179-4 \$6.95	Describes the sources of freshwater on the earth and ways people can conserve water. Includes an activity.
K	Sources of Water 978-0-7368-5180-0 \$6.95	Provides a description of the earth's water sources, salt water, and freshwater. Includes an activity.

Simple Machines

G	What Are Pulleys? 978-0-7368-9138-7	\$5.95	Text and photographs present pulleys and their function as a simple machine.
G	What Are Screws? 978-0-7368-9139-4	\$5.95	Text and photographs present screws and their function as a simple machine.
G	What Are Wheels and Axles? 978-0-7368-9141-7 \$5.95		Simple text and photographs present wheels and axles and their function as a simple machine.
I	Levers 978-0-7368-4953-1 \$6.95		Provides examples to describe levers as simple machines used to lift, push, or move a load.
J	Inclined Planes 978-0-7368-4949-4 \$6.95		Provides examples to describe inclined planes as simple machines that make lifting, pushing, moving, and building easier.
J	Pulleys 978-0-7368-4950-0 \$6.95		Provides examples to describe pulleys as simple machines that make lifting, pulling, and moving easier.
J	Screws 978-0-7368-4948-7 \$6.95		Provides examples to show how screws are simple machines that make joining things together, moving, and lifting easier.
J	Wedges 978-0-7368-4951-7 \$6.95		Provides examples to show how wedges are simple machines that make pushing, pulling apart, and lifting easier.
J	Wheels and Axles 978-0-7368-4952-4 \$6.95		Provides examples to show how wheels and axles are simple machines that make carrying, pushing, and mixing easier.
K	Cut, Chop, and Stop 978-1-4048-1907-8 \$7.95		Provides examples to show how wedges are simple machines that make pulling apart, stopping, and moving easier. Includes an activity.
K	Roll, Slope, and Slide 978-1-4048-1909-2 \$7.95		Describes the different kinds, uses, and benefits of inclined planes and ramps. Includes an activity.
L	Twist, Dig, and Drill 978-1-4048-1912-2 \$7.95		Provides examples showing how screws are simple machines that make joining things together and moving, easier.

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CONTENT AREA / STRAND NC.6.P. Physical Science

Standards	Titles That Meet
<p>CLARIFYING OBJECTIVE 6.P.1.1. Compare the properties of waves to the wavelike property of energy in earthquakes, light and sound.</p>	<p><u>Exploring the Nature of Light:</u> Lesson 02 pp. 17-A-31, Lesson 03 Ext. p. 35-A, Lesson 03 pp. 31-A-43, Lesson 05 Ext. p. 61-A, Lesson 05 pp. 55-A-65, Lesson 06 pp. 65-A-75, Lesson 07 pp. 75-A-89, Lesson 09 pp. 107-A-115, Lesson 11 Ext. p. 138-B, Lesson 11 pp. 127-A-143, Lesson 12 Ext. p. 156-B, Lesson 12 pp. 143-A-163</p>
<p>CLARIFYING OBJECTIVE 6.P.1.2. Explain the relationship among visible light, the electromagnetic spectrum, and sight.</p>	<p><u>Exploring the Nature of Light:</u> Lesson 01 pp. 1-A-17, Lesson 05 Ext. p. 61-A, Lesson 05 pp. 55-A-65, Lesson 06 pp. 65-A-75, Lesson 07 Ext. p. 83-A, Lesson 07 pp. 75-A-89, Lesson 08 pp. 89-A-107, Lesson 09 pp. 107-A-115</p>
<p>CLARIFYING OBJECTIVE 6.P.2.1. Recognize that all matter is made up of atoms and atoms of the same element are all alike, but are different from the atoms of other elements.</p>	<p>EIE: Now You're Cooking: Designing Solar Ovens</p>

CLARIFYING OBJECTIVE 6.P.2.2.

Explain the effect of heat on the motion of atoms through a description of what happens to particles during a change in phase.

Exploring the Properties of Matter:

Lesson 02 Ext. p. 25-A, Lesson 05 pp. 51-A-73, Lesson 07 Ext. p. 89- B, Lesson 07 pp. 83-A-99, Lesson 10 Ext. p. 128-B, Lesson 12 Ext. p. 145-A

CLARIFYING OBJECTIVE 6.P.2.3.

Compare the physical properties of pure substances that are independent of the amount of matter present including density, melting point, boiling point, and solubility to properties that are dependent on the amount of matter present to include volume, mass and weight.

Exploring the Properties of Matter:

All Lessons

CLARIFYING OBJECTIVE 6.P.3.1.

Illustrate the transfer of heat energy from warmer objects to cooler ones using examples of conduction, radiation and convection and the effects that may result.

Exploring the Properties of Matter:

Lesson 01 pp. 1-A-17, Lesson 05 Ext. p. 57-A, Lesson 05 pp. 51-A-73, Lesson 06 Ext. p. 79-A, Lesson 06 pp. 73-A-83, Lesson 07 Ext. p. 89- B, Lesson 07 pp. 83-A-99, Lesson 08 Ext. p. 104-B, Lesson 08 pp. 99- A-107

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CLARIFYING OBJECTIVE 6.P.3.2.

Explain the effects of electromagnetic waves on various materials to include absorption, scattering, and change in temperature.

Exploring the Nature of Light:

Lesson 02 pp. 17-A-31, Lesson 06 pp. 65-A-75, Lesson 07 pp. 75-A- 89, Lesson 12 pp. 143-A-163

CONTENT AREA / STRAND NC.6.E.
Earth Science

Standards	Titles That Meet
<p>CLARIFYING OBJECTIVE 6.E.1.1. Explain how the relative motion and relative position of the sun, Earth and moon affect the seasons, tides, phases of the moon, and eclipses.</p>	<p><u>Exploring Planetary Systems:</u> Lesson 01 pp. 01-A-21, Lesson 04 pp. 49-A-77, Lesson 10 pp. 199-A-207 EIE: A Long Way Down: Designing Parachutes</p>
<p>CLARIFYING OBJECTIVE 6.E.1.2. Explain why Earth sustains life while other planets do not based on their properties (including types of surface, atmosphere and gravitational force) and location to the Sun.</p>	<p><u>Exploring Planetary Systems:</u> Lesson 04 pp. 49-A-77, Lesson 06 pp. 93-A-121, Lesson 07 pp. 121-A-155, Lesson 09 Ext. p. 185-A, Lesson 09 pp. 173-A-199, Lesson 10 pp. 199-A- 207</p>
<p>CLARIFYING OBJECTIVE 6.E.1.3. Summarize space exploration and the understandings gained from them.</p>	<p><u>Exploring Planetary Systems:</u> All Lessons</p>
<p>CLARIFYING OBJECTIVE 6.E.2.1. Summarize the structure of the earth, including the layers, the mantle and core based on the relative position, composition and density.</p>	<p><u>This standard is addressed in STC-Secondary TE: Exploring Plate Tectonics, placed in 7th grade:</u> Lesson 01 pp. 01-A-9, Lesson 02 pp. 09-A-23, Lesson 03 pp. 23-A-47 Lesson 04 pp. 47-A-65, Lesson 05 Ext. p. 69-A, Lesson 05 pp. 65-A-73, Lesson 06 Ext. p. 83-B, Lesson 06 pp. 73-A-89, Lesson 07 pp. 89-A-101, Lesson 08 pp. 101-C-111, Lesson 09 Ext. p. 115-A, Lesson 09 pp. 111-A-123, Lesson 11 Ext. p. 154-B, Lesson 11 pp. 139-A-159 Lesson 12 pp. 159-A-173, Lesson 13 Ext. p. 179-A, Lesson 13 pp. 173-A-183, Lesson 14 Ext. pp. 193-A-193-C, Lesson 14 pp. 183-A-207, Lesson 15 pp. 207-A-211-B</p>
<p>CLARIFYING OBJECTIVE 6.E.2.2. Explain how crustal plates and ocean basins are formed, move and interact using earthquakes, heat flow and volcanoes to reflect forces within the earth.</p>	<p><u>Exploring Planetary Systems:</u> Lesson 06 pp. 93-A-121, Lesson 10 pp. 199-A-207, Lesson 13 pp. 173-A-183, Lesson 14 pp. 183-A-207, Lesson 15 pp. 207-A-211-B</p> <p><u>Additionally, this standard is addressed in STC-Secondary TE: Exploring Plate Tectonics, placed in 7th grade:</u> Lesson 01 pp. 01-A-9, Lesson 05 Ext. p. 69-A, Lesson 05 pp. 65-A-73, Lesson 06 Ext. p. 83-B, Lesson 06 pp. 73-A-89, Lesson 07 Ext. p. 101-A, Lesson 07 pp. 89-A-101, Lesson 08 Ext. p. 107-A, Lesson 08 pp. 101-C-111, Lesson 09 Ext. p. 115-A, Lesson 09 pp. 111-A-123,</p>

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Lesson 10 Ext. p. 133-A, Lesson 10 pp. 123-A-139, Lesson 11 Ext. p. 154-B, Lesson 11 pp. 139-A-159, Lesson 12 pp. 159-A-173, Lesson 13 Ext. p. 179-A

CONTENT AREA / STRAND NC.6.L.
Life Science

Standards	Titles That Meet
<p>CLARIFYING OBJECTIVE 6.L.1.1. Summarize the basic structures and functions of flowering plants required for survival, reproduction and defense.</p>	<p><u>Studying the Development and Reproduction of Organisms:</u> Lesson 01 pp. 01-A-19, Lesson 02 pp. 19-A-39, Lesson 06 pp. 91-A- 109, Lesson 11 pp. 181-A-197</p>
<p>CLARIFYING OBJECTIVE 6.L.2.1. Summarize how energy derived from the sun is used by plants to produce sugars (photosynthesis) and is transferred within food chains and food webs (terrestrial and aquatic) from producers to consumers to decomposers.</p>	<p><u>Studying the Development and Reproduction of Organisms:</u> Lesson 01 pp. 01-A-19, Lesson 07 pp. 109-A-129, Lesson 08 Ext. p. 139-A, Lesson 08 pp. 129-A-143, Lesson 11 pp. 181-A-197</p> <p>EIE: Thinking Inside The Box: Designing Plant Packages</p>
<p>CLARIFYING OBJECTIVE 6.L.2.3. Summarize how the abiotic factors (such as temperature, water, sunlight, and soil quality) of biomes (freshwater, marine, forest, grasslands, desert, Tundra) affect the ability of organisms to grow, survive and/or create their own food through photosynthesis.</p>	<p><u>Investigating Biodiversity and Interdependence:</u> Lesson 01 Ext. p. 06-B, Lesson 04 Ext. p. 59-A, Lesson 04 pp. 54-A-63, Lesson 08 Ext. p. 120-B, Lesson 08 pp. 113-A-123, Lesson 09 Ext. p. 131- A, Lesson 09 pp. 123-A-133, Lesson 10 Ext. pp. 139-A-139-B, Lesson 10 pp. 133-A-147, Lesson 11 pp. 147-A-157, Lesson 13 pp. 165-A-177</p> <p><u>STC-Secondary TE: Understanding Weather and Climate</u> Lesson 01 pp. 01-A-19 Lesson 08 Ext. p. 139-B Lesson 11 pp. 191-A-209 Lesson 13 pp. 227-A-231-A</p>

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CONTENT AREA / STRAND NC.7.P.

Physical Science

Standards	Titles That Meet
<p>CLARIFYING OBJECTIVE 7.P.1.2. Explain the effects of balanced and unbalanced forces acting on an object (including friction, gravity and magnets).</p>	<p><u>Working with Motors and Simple Machines:</u> Lesson 04 Ext. p. 46-B, Lesson 04 pp. 37-A-49, Lesson 06 Ext. p. 67-A, Lesson 06 pp. 59-A-73, Lesson 07 Ext. p. 83-A, Lesson 07 pp. 73-A- 87, Lesson 08 Ext. p. 95-A, Lesson 08 pp. 87-A-101, Lesson 10 pp. 113-A-125, Lesson 12 Ext. p. 136-B, Lesson 12 pp. 131-A-141</p>
<p>CLARIFYING OBJECTIVE 7.P.1.3. Illustrate the motion of an object using a graph to show a change in position over a period of time.</p>	<p><u>Working with Motors and Simple Machines:</u> Lesson 05 pp. 49-A-59, Lesson 06 Ext. p. 67-A, Lesson 06 pp. 59-A- 73, Lesson 08 Ext. p. 95-A, Lesson 10 Ext. p. 118-B, Lesson 10 pp. 113-A-125, Lesson 11 Ext. p. 129-A</p>
<p>CLARIFYING OBJECTIVE 7.P.1.4. Interpret distance versus time graphs for constant speed and variable motion.</p>	<p>Lesson 07 Ext. p. 76-A, Lesson 09 Ext. p. 101-A, Lesson 09 pp. 93- A-107, Lesson 13 pp. 145-A-151</p> <p>EIE: Marvelous Machines: Making Work Easier</p>
<p>CLARIFYING OBJECTIVE 7.P.2.1. Explain how kinetic and potential energy contribute to the mechanical energy of an object.</p>	<p><u>This standard is addressed in Experimenting with Forces and Motion</u> placed in 8th Grade Lesson 07 pp. 69-A-83, Lesson 09 Ext. p. 101-A, Lesson 10 Ext. p. 113-A, Lesson 10 pp. 107-A-119, Lesson 11 Ext. p. 133-A, Lesson 11 pp. 119-A- 133-B, Lesson 12 Ext. p. 139-A, Lesson 12 pp. 133- C-145, Lesson 13 pp. 145-A-151</p>
<p>CLARIFYING OBJECTIVE 7.P.2.2. Explain how energy can be transformed from one form to another (specifically potential energy and kinetic energy) using a model or diagram of a moving object (roller coaster, pendulum, or cars on ramps as examples).</p>	<p><u>Working with Motors and Simple Machines:</u> Lesson 01 pp. 1-A-13, Lesson 02 Ext. p. 23-A, Lesson 02 pp. 13-A-25, Lesson 03 Ext. p. 33-A, Lesson 03 pp. 25-A-37, Lesson 04 Ext. p. 46-B, Lesson 04 pp. 37-A-49, Lesson 05 Ext. p. 55-A, Lesson 05 pp. 49-A-59</p>

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CONTENT AREA / STRAND NC.7.P.

Physical Science

Standards	Titles That Meet
<p>CLARIFYING OBJECTIVE 7.P.2.3. Recognize that energy can be transferred from one system to another when two objects push or pull on each other over a distance (work) and electrical circuits require a complete loop through which an electrical current can pass.</p>	<p><u>Working with Motors and Simple Machines:</u> All Lessons</p>
<p>CLARIFYING OBJECTIVE 7.P.2.4. Explain how simple machines such as inclined planes, pulleys, levers and wheel and axels are used to create mechanical advantage and increase efficiency.</p>	<p><u>Working with Motors and Simple Machines:</u> All Lessons</p>

CONTENT AREA / STRAND NC.7.E.

Earth Science

Standards	Titles That Meet
<p>CLARIFYING OBJECTIVE 7.E.1.1. Compare the composition, properties and structure of Earth's atmosphere to include: mixtures of gases and differences in temperature and pressure within layers.</p>	<p><u>This standard addressed in STC-Secondary TE: Exploring Plate Tectonics, placed in 6th grade.</u> Lesson 01 pp. 01-A-9, Lesson 02 pp. 09-A-23, Lesson 03 pp. 23-A-47 Lesson 04 pp. 47-A-65, Lesson 05 Ext. p. 69-A, Lesson 05 pp. 65-A- 73, Lesson 06 Ext. p. 83-B, Lesson 06 pp. 73-A-89, Lesson 07 pp. 89- A-101, Lesson 08 pp. 101-C-111, Lesson 09 Ext. p. 115-A, Lesson 09 pp. 111-A-123, Lesson 11 Ext. p. 154-B, Lesson 11 pp. 139-A-159 Lesson 12 pp. 159-A-173, Lesson 13 Ext. p. 179-A, Lesson 13 pp. 173-A-183, Lesson 14 Ext. pp. 193-A-193-C, Lesson 14 pp. 183-A-207, Lesson 15 pp. 207-A-211-B</p>
<p>CLARIFYING OBJECTIVE 7.E.1.2. Explain how the cycling of water in and out of the atmosphere and atmospheric conditions relate to the weather patterns on Earth.</p>	<p><u>STC-Secondary TE: Understanding Weather and Climate</u> Lesson 04 pp. 57-A-73, Lesson 06 pp. 93-A-111, Lesson 13 pp. 227-A-231-A</p>

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CLARIFYING OBJECTIVE 7.E.1.3.

Explain the relationship between the movement of air masses, high and low pressure systems, and frontal boundaries to storms (including thunderstorms, hurricanes, and tornadoes) and other weather conditions that may result.

STC-Secondary TE: Understanding Weather and Climate

Lesson 01 Ext. pp. 08-B-08-C, Lesson 01 pp. 01-A-19, Lesson 02 Ext. p. 27-B, Lesson 02 pp. 19-A-37, Lesson 03 pp. 37-A-5, Lesson 04 Ext. p. 67-B, Lesson 04 pp. 57-A-73, Lesson 05 pp. 73-A-93, Lesson 06 pp. 93-A-111, Lesson 07 Ext. p. 121-A, Lesson 07 pp. 111-A-131, Lesson 09 pp. 153-A-177, Lesson 10 pp. 177-A-191, Lesson 13 pp. 227-A-231-A

INDICATOR 7.E.1.4.a.

Weather data collected from direct observations and measurement (wind speed and direction, air temperature, humidity and air pressure)

STC-Secondary TE: Understanding Weather and Climate

Lesson 04 Ext. p. 67-B

INDICATOR 7.E.1.4.b.

Weather maps, satellites and radar

STC-Secondary TE: Understanding Weather and Climate

Lesson 01 pp. 01-A-19, Lesson 02 Ext. p. 27-B, Lesson 02 pp. 19-A-37, Lesson 03 Ext. pp. 45-B-45-C, Lesson 04 Ext. p. 67-B, Lesson 04 pp. 57-A-73, Lesson 05 pp. 73-A-93, Lesson 06 Ext. p. 107-A, Lesson 06 pp. 93-A-111, Lesson 07 pp. 111-A-131, Lesson 09 pp. 153-A-177 Lesson 13 pp. 227-A-231-A

INDICATOR 7.E.1.4.c.

Cloud shapes and types and associated elevation

STC-Secondary TE: Understanding Weather and Climate

Lesson 01 Ext. pp. 08-B-08-C, Lesson 01 pp. 01-A-19, Lesson 02 Ext. p. 27-B, Lesson 02 pp. 19-A-37, Lesson 03 Ext. pp. 45-B-45-C, Lesson 04 pp. 57-A-73, Lesson 06 Ext. p. 107-A, Lesson 06 pp. 93-A-111

CLARIFYING OBJECTIVE 7.E.1.5.

Explain the influence of convection, global winds and the jet stream on weather and climatic conditions.

STC-Secondary TE: Understanding Weather and Climate

Lesson 03 Ext. pp. 45-B-45-C, Lesson 03 pp. 37-A-57, Lesson 04 pp. 57-A-73, Lesson 05 Ext. p. 79-A, Lesson 05 pp. 73-A-93, Lesson 06 pp. 93-A-111, Lesson 07 pp. 111-A-131, Lesson 09 Ext. p. 167-A, Lesson 09 pp. 153-A-177, Lesson 10 pp. 177-A-191, Lesson 13 pp. 227-A-231-A

CLARIFYING OBJECTIVE 7.E.1.6.

Conclude that the good health of humans requires: monitoring the atmosphere, maintaining air quality and stewardship.

STC-Secondary TE: Understanding Weather and Climate

Lesson 11 pp. 191-A-209, Lesson 12 pp. 209-A-227, Lesson 13 pp. 227-A-231-A

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CONTENT AREA / STRAND NC.7.L.

Life Science

Standards	Titles That Meet
7.L.1.1	
Compare the structures and life functions of single-celled organisms that carry out all of the basic functions of life including:	
INDICATOR 7.L.1.1.a.	<u>Investigating Biodiversity and Interdependence:</u>
Euglena	Lesson 01 pp. 01-A-19, Lesson 06 pp. 79-A-95, Lesson 08 Ext. p. 120-B, Lesson 08 pp. 113-A-123
INDICATOR 7.L.1.1.b.	<u>Investigating Biodiversity and Interdependence:</u>
Amoeba	Lesson 01 pp. 01-A-19, Lesson 06 pp. 79-A-95, Lesson 08 Ext. p. 120-B, Lesson 08 pp. 113-A-123
INDICATOR 7.L.1.1.c.	<u>Investigating Biodiversity and Interdependence:</u>
Paramecium	Lesson 01 pp. 01-A-19, Lesson 06 pp. 79-A-95, Lesson 08 Ext. p. 120-B, Lesson 08 pp. 113-A-123
INDICATOR 7.L.1.1.d.	<u>Investigating Biodiversity and Interdependence:</u>
Volvox	Lesson 01 pp. 01-A-19, Lesson 06 pp. 79-A-95, Lesson 08 Ext. p. 120-B, Lesson 08 pp. 113-A-123
CLARIFYING OBJECTIVE 7.L.1.2.	<u>Investigating Biodiversity and Interdependence:</u>
Compare the structures and functions of plant and animal cells, including major organelles (cell membrane, cell wall, nucleus, chloroplasts, mitochondria, and vacuoles).	Lesson 05 Ext. pp. 75-A-75-B, Lesson 05 pp. 63-A-79, Lesson 06 pp. 79-A- 95
CLARIFYING OBJECTIVE 7.L.1.3.	<u>This standard is addressed in Exploring Respiration</u>
Summarize the hierarchical organization of multi-cellular organisms from cells to tissues to organs to systems to organisms.	<u>and Circulation placed in 8th grade:</u>
	Lesson 01 Ext. p. 7-A, Lesson 01 pp. 1-A-9, Lesson 02 pp. 9-A-25, Lesson 03 Ext. p. 32-A, Lesson 03 pp. 25-A-35, Lesson 04 pp. 35-A- 55, Lesson 06 Ext. p. 74-B, Lesson 06 pp. 67-A-77, Lesson 08 pp. 89-A-107, Lesson 09 pp. 107-A-119, Lesson 10 pp. 119-A-131, Lesson 11 pp. 131-A-139

North Carolina Common Core State and Essential Standards Science Grade 7 - Adopted 2010

CONTENT AREA / STRAND NC.7.L.

Life Science

Standards	Titles That Meet
<p>CLARIFYING OBJECTIVE 7.L.1.4. Summarize the general functions of the major systems of the human body (digestion, respiration, reproduction, circulation, and excretion) and ways that these systems interact with each other to sustain life.</p>	<p><u>This standard is addressed in Exploring Respiration and Circulation placed in 8th grade:</u> All Lessons</p>
<p>CLARIFYING OBJECTIVE 7.L.2.1. Explain why offspring that result from sexual reproduction (fertilization and meiosis) have greater variation than offspring that result from asexual reproduction (budding and mitosis).</p>	<p><u>Investigating Biodiversity and Interdependence:</u> Lesson 03 Ext. p. 48-B, Lesson 03 pp. 39-A-54, Lesson 08 Ext. p. 120-B, Lesson 08 pp. 113-A-123, Lesson 10 Ext. pp. 139-A-139-B, Lesson 10 pp. 133-A-147</p>
<p>CLARIFYING OBJECTIVE 7.L.2.2. Infer patterns of heredity using information from Punnett squares and pedigree analysis.</p>	<p><u>This standard is addressed in Studying the Development and Reproduction of Organisms, placed in 6th grade:</u> Lesson 10 Ext. p. 171-A, Lesson 10 pp. 159-A-181</p>
<p>CLARIFYING OBJECTIVE 7.L.2.3. Explain the impact of the environment and lifestyle choices on biological inheritance (to include common genetic diseases) and survival.</p>	<p><u>This standard is addressed in Studying the Development and Reproduction of Organisms, placed in 6th grade:</u> Lesson 10 Ext. p. 171-A, Lesson 10 pp. 159-A-181</p>

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CONTENT AREA / STRAND NC.8.P.
Physical Science

Standards	Titles That Meet
<p>CLARIFYING OBJECTIVE 8.P.1.1. Classify matter as elements, compounds, or mixtures based on how the atoms are packed together in arrangements.</p>	<p><u>Experimenting with Mixtures, Compounds, and Elements:</u> All Lessons</p>
<p>CLARIFYING OBJECTIVE 8.P.1.2. Explain how the physical properties of elements and their reactivity have been used to produce the current model of the Periodic Table of elements.</p>	<p><u>Experimenting with Mixtures, Compounds, and Elements:</u> Lesson 07 Ext. p. 86-C, Lesson 07 pp. 77-A-89, Lesson 08 pp. 89-A-101</p>
<p>CLARIFYING OBJECTIVE 8.P.1.3. Compare physical changes such as size, shape and state to chemical changes that are the result of a chemical reaction to include changes in temperature, color, formation of a gas or precipitate.</p>	<p><u>Experimenting with Mixtures, Compounds, and Elements:</u> All Lessons</p>
<p>CLARIFYING OBJECTIVE 8.P.1.4. Explain how the idea of atoms and a balanced chemical equation support the law of conservation of mass.</p>	<p><u>Experimenting with Mixtures, Compounds, and Elements:</u> Lesson 06 pp. 57-A-77, Lesson 08 pp. 89-A-101</p>
<p>CLARIFYING OBJECTIVE 8.P.2.2. Explain the implications of the depletion of renewable and nonrenewable energy resources and the importance of conservation.</p>	<p><u>This standard is addressed in STC-Secondary TE: Understanding Weather and Climate, placed in 7th grade:</u> Lesson 12 pp. 209-A-227, Lesson 13 pp. 227-A-231-A</p>

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CONTENT AREA / STRAND NC.8.E.
Earth Science

Standards	Titles That Meet
INDICATOR 8.E.1.1.a. Water distribution on earth	Carolina recommends GEMS Ocean Sciences Sequences for Grades 6–8 to cover standards 8.E.1.1.a– 8.E. 1.1.e
INDICATOR 8.E.1.2.a. Estuaries	Note that these standards are address in STC-Secondary TE: Understanding Weather and Climate, placed in 7 th grade.
INDICATOR 8.E.1.2.b. Marine ecosystems	
INDICATOR 8.E.1.2.c. Upwelling	
INDICATOR 8.E.1.2.d. Behavior of gases in the marine environment	
INDICATOR 8.E.1.2.e. Deep ocean technology and understandings gained	

CONTENT AREA / STRAND NC.8.E.
Earth Science

Standards	Titles That Meet
CLARIFYING OBJECTIVE 8.E.2.1. Infer the age of Earth and relative age of rocks and fossils from index fossils and ordering of rock layers (relative dating and radioactive dating).	This standard is addressed in <u>Exploring Planetary Systems, placed in 6th grade:</u> Lesson 09 Ext. p. 185-A, Lesson 09 pp. 173-A-199, Lesson 10 pp. 199-A- 207
CLARIFYING OBJECTIVE 8.E.2.2. Explain the use of fossils, ice cores, composition of sedimentary rocks, faults, and igneous rock formations found in rock layers as evidence of the history of the Earth and its changing life forms.	This standard is addressed in STC-Secondary TE: <u>Understanding Weather and Climate, placed in 7th grade:</u> Lesson 11 pp. 191-A-209, Lesson 13 pp. 227-A-231-A This standard is addressed in <u>Exploring Planetary Systems, placed in 6th grade:</u> Lesson 01 pp. 01-A-21, Lesson 08 pp. 155-A-173, Lesson 09 pp. 173-A- 199, Lesson 10 pp. 199-A-207

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CONTENT AREA / STRAND NC.8.E.
Life Science

Standards	Titles That Meet
<p>CLARIFYING OBJECTIVE 8.L.1.1. Summarize the basic characteristics of viruses, bacteria, fungi and parasites relating to the spread, treatment and prevention of disease.</p>	<p><u>Exploring Respiration and Circulation:</u> Lesson 04 pp. 35-A-55, Lesson 07 pp. 77-A-89, Lesson 09 pp. 107- A-119, Lesson 10 pp. 119-A-131</p>
<p>CLARIFYING OBJECTIVE 8.L.1.2. Explain the difference between epidemic and pandemic as it relates to the spread, treatment and prevention of disease.</p>	<p><u>Exploring Respiration and Circulation:</u> Lesson 04 pp. 35-A-55, Lesson 07 pp. 77-A-89</p>
<p>CLARIFYING OBJECTIVE 8.L.3.1. Explain how factors such as food, water, shelter and space affect populations in an ecosystem.</p>	<p><u>This standard is addressed in Investigating Biodiversity and Interdependence</u>, placed in 7th grade: Lesson 04 Ext. p. 59-A, Lesson 04 pp. 54-A-63, Lesson 05 pp. 63-A- 79, Lesson 06 pp. 79-A-95, Lesson 08 Ext. p. 120-B, Lesson 08 pp. 113-A-123, Lesson 09 Ext. p. 131-A, Lesson 09 pp. 123-A-133, Lesson 11 pp. 147-A- 157, Lesson 12 Ext. p. 162-B, Lesson 12 pp. 157-A-165, Lesson 13 pp. 165-A-177</p> <p><u>Additionally, this standard is addressed in Studying the Development and Reproduction of Organisms</u> placed in 6th grade: Lesson 04 Ext. pp. 73-A-73-D, Lesson 04 pp. 57-A-79, Lesson 07 pp. 109- A-129, Lesson 08 Ext. p. 139-A, Lesson 08 pp. 129-A-143, Lesson 11 pp. 181-A-197</p>
<p>INDICATOR 8.L.3.2.a. Coexistence and cooperation</p>	<p><u>This standard is addressed in Investigating Biodiversity and Interdependence</u>, placed in 7th grade: Lesson 06 pp. 79-A-95, Lesson 11 pp. 147-A-157</p>
<p>INDICATOR 8.L.3.2.d. Mutualism</p>	<p><u>This standard is addressed in Investigating Biodiversity and Interdependence</u>, placed in 7th grade: Lesson 06 pp. 79-A-95, Lesson 11 pp. 147-A-157</p>
<p>CLARIFYING OBJECTIVE 8.L.3.3.</p>	<p><u>This standard is addressed in Investigating Biodiversity and Interdependence</u>, placed in 7th grade:</p>

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Explain how the flow of energy within food webs is interconnected with the cycling of matter (including water, nitrogen, carbon dioxide and oxygen).

Lesson 07 pp. 109-A-129, Lesson 08 Ext. p. 139-A, Lesson 08 pp. 129-A- 143

Lesson 05 pp. 63-A-79, Lesson 06 pp. 79-A-95, Lesson 08 Ext. p. 120-B, Lesson 08 pp. 113-A-123, Lesson 11 pp. 147-A-157

Additionally, this standard is addressed in Studying the Development and Reproduction of Organisms, placed in 6th

CLARIFYING OBJECTIVE 8.L.4.1.

Summarize the use of evidence drawn from geology, fossils, and comparative anatomy to form the basis for biological classification systems and the theory of evolution.

Lesson 01 pp. 01-A-19, Lesson 11 pp. 181-A-197

This standard is addressed in Investigating Biodiversity and Interdependence, placed in 7th grade:

Lesson 01 pp. 01-A-19, Lesson 06 pp. 79-A-95, Lesson 13 pp. 165-A-177

Additionally, this standard is addressed in Studying the Development and Reproduction of Organisms, placed in 6th

CLARIFYING OBJECTIVE 8.L.5.1.

Summarize how food provides the energy and the molecules required for building materials, growth and survival of all organisms (to include plants).

Investigating Digestion and Motion:

Lesson 03 pp. 19-A-33, Lesson 09 pp. 83-C-97

CLARIFYING OBJECTIVE 8.L.5.2.

Explain the relationship among a healthy diet, exercise, and the general health of the body (emphasis on the relationship between respiration and digestion).

Exploring Respiration and Circulation:

Lesson 05 Ext. p. 63-A, Lesson 05 pp. 55-A-67, Lesson 06 Ext. p. 74-B, Lesson 06 pp. 67-A-77, Lesson 09 pp. 107-A-119, Lesson 10 pp. 119-A- 131, Lesson 11 pp. 131-A-139

Investigating Digestion and Motion:

Lesson 03 pp. 19-A-33, Lesson 05 Ext. p. 49-A, Lesson 09 Ext. p. 88-A, Lesson 09 pp. 83-C-97, Lesson 13 Ext. p. 142-A, Lesson 13 pp. 137-A-147

Recycling (Grades 4-6)

Recycling facts for kids: <http://www.chevroncars.com/learn/wondrous-world/recycling-facts>

Information about waste and recycling: <http://www.dnr.state.wi.us/org/caer/ce/ee/earth/recycle/waste.htm#save>

An article about recycling: "Recycling-Chemistry Can"

http://portal.acs.org/portal/acs/corg/content?nfpb=true&pageLabel=PP_SUPERARTICLE&node_id=1758&use_sec=false&sec_url_var=r egion1&_uid=b9bbb526-349d-4cb4-8ec1-9f6ee721ff31

An article about the waste produced by plastic water bottles:

<http://kids.nationalgeographic.com/kids/stories/spacescience/water-bottle-pollution/>

A news clip that argues recycling is the "lazy" way of saving our planet:

<http://www.youtube.com/watch?v=gVS3O5vxpJI&feature=related>

An article on the problems with plastic, and attempts to create a viable replacement:

<http://www.sciencenewsforkids.org/2011/07/plant-powered-plastics/>

An article that argues recycling is a waste of time, money and energy: <http://mises.org/daily/1911>

Green Energy (Grades 4-6)

The pros and cons of solar energy:

http://www.clean-energy-ideas.com/articles/pros_and_cons_of_solar_energy.html

An argument against solar panels for aesthetic purposes: <http://www.infrastructurist.com/2011/03/29/get-your-ugly-solar-panel-off-my-pristine-utility-pole/>

An article on one negative effect of alternative energy sources: <http://www.foxnews.com/scitech/2011/11/05/wind-farms-disrupting-radar-scientists-say/>

A video on alternative energy: <http://video.nationalgeographic.com/video/player/environment/energy-environment/alternative-energy.html>

An article about President Obama's promotion of clean energy: <http://www.scholastic.com/browse/article.jsp?id=3756003>

An article about urban farms: <http://www.sciencenewsforkids.org/2008/10/farms-sprout-in-cities-2/>

Thinning Ozone Layer (Grades 4-8)

description of what the ozone is, and effects of ozone depletion
<http://www.epa.gov/sunwise/kids/kids-ozone.html>

European Space Agency satellite photos of holes in the ozone layer <http://www.esa.int/esaKIDSen/SEMYYLXJDIIE-Earth-0.html>

good ozone and bad ozone <http://dnr.wi.gov/org/caer/ce/ee/earth/air/badozone.htm>

how the damage to the ozone started <http://dnr.wi.gov/org/caer/ce/ee/earth/air/ozonlayr.htm>

what is the ozone hole
<http://www.clean-air-kids.org.uk/ozonehole.html>

National Geographic article on thinning ozone layer <http://environment.nationalgeographic.com/environment/global-warming/ozone-depletion-overview/>

dense fact sheet and video interview with arctic explorer on recovery of ozone layer <http://www.theozonehole.com/fact.htm>

science teacher argues that there is no hole in the ozone
<http://www.opposingviews.com/i/there-is-no-hole-in-the-ozone-layer>

blog argues that hole in the ozone is a good thing <http://blogs.telegraph.co.uk/news/janetdaley/100018432/newsflash-hole-in-ozone-layer-a-good-thing/>

Fighting Pollution - Can We Make a Difference? (Grades 4-8)

preventing illegal dumping by tracking trucks http://www.esa.int/esaKIDSen/SEMYP2WPXPE_Earth_0.html

famous 'Keep America Beautiful' PSA <http://www.youtube.com/watch?v=i7OHG7tHrNM>

role of satellites in tracking pollution http://www.esa.int/esaKIDSen/SEM2WKXJD1E_Earth_0.html

kids ecology corps describes various kinds of pollution <http://www.kidsecologycorps.org/our-environment/natural-cycles/water-pollution>

quick ideas about fighting air pollution
<http://www.arb.ca.gov/knowzone/students/whatcha-doin/index.htm>

air quality - history and what to do about improving it
<http://www.clean-air-kids.org.uk/airquality.html>

National Geographic review of causes of air pollution <http://environment.nationalgeographic.com/environment/global-warming/pollution-overview/>

Water Pollution: Issues and Stances (Grades 4-8)

effect of bottled water on pollution levels from National Geographic
<http://kids.nationalgeographic.com/kids/stories/spacescience/water-bottle-pollution/>

trying to keep water clean http://www.chewonki.org/cleanwater/water_pollution.asp

a forum on water pollution issues
<http://www.water-pollution.org.uk/>

does it do any good to drink bottled water? <http://abcnews.go.com/2020/Health/story?id=728070&page=1#.T2ihCcUgewQ>

20/20 video on origins of bottled water - same as above article http://www.youtube.com/watch?v=_3OBZac3MSY

summary of dangers of tap water - from a water filter company <http://www.reverse-osmosis-water-filter-guide.com/dangers-of-tap-water.html>

Global Warming (Grades 4-8)

threat of melting ice http://www.esa.int/esaKIDSen/SEMFE07CSSG_Earth_0.html

satellite data on rising temperatures http://www.esa.int/esaKIDSen/SEMZ3LXJD1E_Earth_0.html

children of tomorrow sing about planet change
<http://www.youtube.com/watch?v=Jw08w9Ku-g0>

student's environmental science project - a cartoon video explaining global warming
<http://www.youtube.com/watch?v=GB08-zEcE9w>

Environmental Defense Fund explains earth warming up http://www.edf.org/climate/climate-facts-dangers-and-what-you-can-do?_s_src=ggad.03.2012.control&gclid=CP2-oMfc9a4CFWcONAodrZWVEw

EPA's student guide to climate change <http://www.epa.gov/climatechange/kids/>

tv asked leading YouTubers Eddsworld to create films ahead of the Copenhagen conference
<http://www.youtube.com/watch?v=GB08-zEcE9w>

argues the debate is not over about global warming
<http://abcnews.go.com/2020/Stossel/story?id=3751219&page=1#.T2ibycUgewQ>

contest to 'debunk' global warming, with links to winning kids' entries <http://www.wnd.com/2008/04/62598/>

Environmental Defense ad about consequences of global warming <http://www.youtube.com/watch?v=i70HG7tHrNM>

Aliens (Grades 5-8)

NASA confirms aliens exist - as bacterium <http://www.dogonews.com/2010/12/8/nasa-confirms-aliens-exist-right-on-our-planet>

collection of unverified but popular NASA photos http://www.youtube.com/watch?v=WILN_Ice1pc&feature=related

posits that NASA has not returned to the moon due to alien occupation
<http://www.youtube.com/watch?v=iIW2cLOzMI8&feature=related>

NASA history of the 'face on Mars'
http://science.nasa.gov/science-news/science-at-nasa/2001/ast24may_1/

CNN report on government officials reporting UFOs <http://www.youtube.com/watch?v=ZUdf8kRpLWs&feature=related>

scientific explanations for alien abductions - Discovery channel article and video
<http://curiosity.discovery.com/question/explanation-alien-abduction>

unsolved mystery account of kids claiming they saw UFO <http://www.youtube.com/watch?v=u4uWVn9s4SE>

EcoCarbon Footprint (Grades 7-9)

compute your ecological footprint <http://www.islandwood.org/kids/impact/footprint.php>

World Wildlife Federation top ten ways to reduce eco footprint
http://www.wwf.org.uk/what_we_do/changing_the_way_we_live/cities/top_ten_ways_to_reduce_your_ecological_footprint.cfm

Verizon decides to cut its carbon footprint
<http://www.treehugger.com/green-investments/verizon-reduce-carbon-footprint-50-2020-ceo-says.html>

India suggests US reduce carbon footprint before pressuring others
<http://www.bloomberg.com/apps/news?pid=newsarchive&sid=a7WGSJvqXSvU>

Kristie Pelletier claims carbon footprint is a myth <http://www.youtube.com/watch?v=osvXCIOFRE>

dense explanation of carbon footprint http://www.footprintnetwork.org/en/index.php/GFn/page/carbon_footprint/

definition of carbon footprint
<http://timeforchange.org/what-is-a-carbon-footprint-definition>

investors put pressure on companies to reduce carbon footprint <http://www.guardian.co.uk/sustainable-business/investors-demand-greenhouse-gas-reductions>

Recycling (Grades 6-9)

Courtesy of Joshua Hurley-Bruno, School of the Future

PSA on benefits of recycling http://ecocycle.org/files/ndfs/why_recycle_%20brochure.pdf

Is recycling worth the trouble and cost?

<http://abcnews.go.com/US/story?id=91824&page=1#.T2i24cUgewO>

the cons of recycling

<http://www.livestrong.com/article/124212-cons-recycling/#ixzz1cMpMKV6r>

hidden costs of recycling <http://policyeconomics.blogspot.com/2007/12/hidden-costs-of-recycling.html>

are efforts to recycle worth it? http://www.cleveland.com/pda/index.ssf/2008/09/are_all_your_recycling_efforts.html

blog about trouble with trying to get rid of plastic - and its effects <http://quakernagan.blogspot.com/2008/12/whats-wrong-with-recycling-trouble-with.html>

recycling gone to waste because trucks not separating trash

http://www.woai.com/content/troubleshooters/story/Recycling-gone-to-waste/Im2Cy5_vAkmlZvoMiTP1Ow.csp

why recycle? <http://ohiodnr.com/Home/why/tabid/9402/Default.aspx>

Wildfires (Grades 6-9)

A Smokey the Bear PSA from the 1980s with implicit message about forest fire destruction

<http://www.youtube.com/watch?v=U6xMd0wSbZc>

Another Smokey the Bear PSA with Joanna Cassidy with provocative messaging

<http://www.youtube.com/watch?v=tXcrbpMNvTs>

A collection of videos on the roles fires play

<http://videos.howstuffworks.com/science/wildfire-videos-playlist.htm>

a newscast about what foresters think about when setting prescribed fires

<http://videos.howstuffworks.com/science/wildfire-videos-playlist.htm#video-37838>

a newscast about the affect of 'cooling fires' <http://videos.howstuffworks.com/science/wildfire-videos-playlist.htm#video-3497>

role of fire control and affect on ecosystem of native American Indians. This articles is included

adapted by teachers, at the end of this bibliography http://www.wildlandfire.com/docs/biblio_indianfire.htm

USNews Report on nitrogen cycle and how it is affected by forest fires <http://www.usnews.com/science/articles/2010/08/10/forest-fires-help-power-the-nitrogen-cycle>

Cell Phone Radiation and Brain Research (Grades 7-9) (compliments of Joshua Hurley-Bruno, School of the Future)

An article on electromagnetic fields and public health from the World Health Organization
<http://www.who.int/mediacentre/factsheets/fs193/en/#>

A review of cell phone radiation levels
http://reviews.cnet.com/2719-6602_7-291-1.html?tag=page:page

video and article on the possible link between cell phone radiation and brain damage
<http://abcnews.go.com/Health/Wellness/cell-phone-study-cell-ops-brain-activity/story?id=12971636#.T2il-MUgewO>

article on how cell phone radiation works <http://electronics.howstuffworks.com/cell-phone-radiation1.htm>

article on how cell-phone waves excite brain cells <http://www.npr.org/2011/02/22/133968220/cell-phone-radio-waves-excite-brain-cells>

description of a cell phone app that measures radiation http://news.cnet.com/8301-30686_3-20017815-266.html#ixzz1Fq7yg7su

Steele Creek STEM Academy Draft Calendar

4 Independence Day

JULY 2016						
S	M	T	W	Th	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

JANUARY 2017						
S	M	T	W	Th	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

2 School Resumes
 16 M.L. King Day No School
 24th Second Qtr Ends 45 days

29 First Day of school

AUGUST 2016						
S	M	T	W	Th	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY 2017						
S	M	T	W	Th	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

17 Teacher wk day No School
 20 Presidents' Day No School

5 Labor Day No School

SEPTEMBER 2016						
S	M	T	W	Th	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

MARCH 2017						
S	M	T	W	Th	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

24th Teacher Workday No School
 31st 3rd quarter ends 45 days

28 First Quarter Ends -44 days
 31 Teacher Planning and
 Conference Day No School

OCTOBER 2016						
S	M	T	W	Th	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

APRIL 2017						
S	M	T	W	Th	F	S
						1
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9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

10-14 Spring Break No School

11 Veterans Day
 21-25 Thanksgiving Break
 No School
 30 Early Release

NOVEMBER 2016						
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MAY 2017						
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28	29	30	31			

29 Memorial Day No School

16 Early Release
 19-31 Winter Break No School

DECEMBER 2016						
S	M	T	W	Th	F	S
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JUNE 2017						
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9 4th Quarter Ends 44 Days

Total days 178
 Total hours 1075

	Glenn	Elder	Bradley	TBD	Scott	A/D	McWilliams	Bostian	Curtis	Lawhead	Green	Flip	Pace	Achee	Bryant	Thelen	Kropf
8:00	K	K	K	K	K												
8:05	Morning Meeting 8:00-8:15					Morning Meeting 8:00-8:15					Morning Meeting 8:00-8:15						
8:10	Reading Intervention 8:15-8:45					Reading Intervention 8:15-8:45					Reading Intervention 8:15-8:45						
8:15	Readers' Workshop 8:45-10:15					Readers' Workshop 8:45-10:15					Readers' Workshop 8:45-10:15						
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	Moore	Duggins	Billman	Michael	King	Mead	Fair	Landahl
8:45	4	4	4	4	4	4	4	4
8:50	Morning Meeting 8:45-9:00				Morning Meeting 8:45-9:00			
8:55	Reading Intervention 9:00-9:30				Specials/Common Planning 9:00-9:45			
9:00	Reader's Workshop 9:30-11:00				Reader's Workshop 9:45-10:15			
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	Section 6-1	Section 6-2	Section 6-3
8:45	Intervention		
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9:00	Math	ELA	Science
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	Section 7-1	Section 7-2	Section 7-3
8:45	Intervention		
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9:00	Math	ELA	Science
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8:45	Reading 8:00-9:30				Reading 8:00-9:30			
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9:30								
9:45								
10:00								
10:15	Math/Science Integrated				Recess			
10:30								
10:45					ELA			
11:00	Lunch							
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11:30					Lunch			
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12:00								
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12:30								
12:45	Recess							
1:00								
1:15	ELA							
1:30								
1:45					Specials/Common Planning			
2:00					1:00-1:45			
2:15								
2:30	Specials/Common Planning							
2:45	1:50-2:35							
3:00								
3:15	Developmental Play Centers							
3:30								
3:45								

	Section 6-1	Section 6-2	Section 6-3
8:45			
9:00	Intervention		
9:15-9:18			
9:18	Math	ELA	Science
10:33			
Core 1			
10:33-10:36			
10:36-11:48	ELA	Science	Math
Core 2			
10:33-10:36			
11:51-1:06	Science	Math	ELA
Core 3			
1:06-1:09			
1:09-1:59	Lunch/Recess		
1:59-2:02			
2:02-2:52	Core Teacher Planning Spanish/PE/Art		
2:52-2:55			
2:55-3:45	Womack-Elective Thomas Elective Medical Detectives		

	Section 7-1	Section 7-2	Section 7-3
8:45			
9:00	Intervention		
9:15-9:18			
9:18	Math	ELA	Science
10:33			
Core 1			
10:33-10:36			
10:36-11:48	ELA	Science	Math
Core 2			
10:33-10:36			
11:51-1:06	Science	Math	ELA
Core 3			
1:06-1:09			
1:09-1:59	Lunch/Recess		
1:59-2:02			
2:02-2:52	Magic of Electrons ELA-Elective Science Elective		
2:52-2:55			
2:55-3:45	Elective 1 Spanish/PE/Art		

	Section 6-1	Section 6-2	Section 6-3
8:30-9:15	PE		
9:18-10:12	Science	Math	Soc. St.
10:15-11:09	Lab	Soc. St.	Math
11:12-12:06	Math	Science	LA
12:12-1:06	Soc. St.	Lab	Elec.
1:09-1:36	LUNCH		
1:39-2:33	Elec.	Math	Science
2:36-3:30	LA	Elec.	Lab

	Kindergarten				1st Grade				2nd Grade				3rd Grade				4th Grade		4th/5th			
Section→	Bradley	Achee	Scott	Glenn	Bostian	Duncan	Curtis	Flip	Green	Lawhead	Kropka	Parker	Austin	Thelen	Bryant	Kropf	Moore	Billman	Michael	Campbell	Odum	Duggins
Day↓																						
Day 1	PE	Arts	STEM	Music	PE	PE	Arts	STEM	PE	PE	Arts	STEM	PE	PE	Arts	STEM	PE	PE	PE	PE	Arts	STEM
Day 2	Arts	STEM	Music	PE	Arts	STEM	PE	PE	Arts	STEM	PE	PE	Arts	STEM	PE	PE	Arts	STEM	Arts	STEM	PE	PE
Day 3	STEM	Music	PE	Arts	PE	PE	STEM	Arts	PE	PE	STEM	Arts	PE	PE	STEM	Arts	PE	PE	PE	PE	STEM	Arts
Day 4	Music	PE	Arts	STEM	STEM	Arts	PE	PE	STEM	Arts	PE	PE	STEM	Arts	PE	PE	STEM	Arts	STEM	Arts	PE	PE

INTERNAL REVENUE SERVICE
P. O. BOX 2508
CINCINNATI, OH 45201

DEPARTMENT OF THE TREASURY

Date: **DEC 08 2016**

ALLIANCE PREPARATORY SCHOOLS INC
C/O JULIE AYERS
212 WEST MATTHEWS STREET
MATTHEWS, NC 28105

Employer Identification Number:
46-4207477
DLN:
17053253320016
Contact Person:
JULIE CHEN ID# 31261
Contact Telephone Number:
(877) 829-5500
Accounting Period Ending:
June 30
Public Charity Status:
170(b)(1)(A)(ii)
Form 990/990-EZ/990-N Required:
Yes
Effective Date of Exemption:
December 5, 2013
Contribution Deductibility:
Yes
Addendum Applies:
Yes

Dear Applicant:

We're pleased to tell you we determined you're exempt from federal income tax under Internal Revenue Code (IRC) Section 501(c)(3). Donors can deduct contributions they make to you under IRC Section 170. You're also qualified to receive tax deductible bequests, devises, transfers or gifts under Section 2055, 2106, or 2522. This letter could help resolve questions on your exempt status. Please keep it for your records.

Organizations exempt under IRC Section 501(c)(3) are further classified as either public charities or private foundations. We determined you're a public charity under the IRC Section listed at the top of this letter.

You're not subject to the specific publishing requirements of Revenue Procedure 75-50, 1975-2 C.B., page 587, as long as you operate under a contract with the local government. If your method of operation changes to the extent that your charter is terminated, cancelled or not renewed, you should notify us. You'll also be required to comply with Revenue Procedure 75-50.

You formed December 5, 2013, and filed your Form 1023, Application for Recognition of Exemption Under Section 501(c)(3) of the Internal Revenue Code, on September 7, 2016. You failed to file a required annual return or notice (Form 990, Form 990-EZ, Form 990-PF, or Form 990-N) for three consecutive years after you formed and while your application was pending. As a result, your tax-exempt status was automatically revoked on November 15, 2016, the due date of your third year return or notice. We're treating your Form 1023 as an application for reinstatement and are recognizing your exemption as reinstated on the same day it was automatically revoked. As a result, you are recognized as tax exempt continuously from the effective date of exemption as listed at

Letter 947

ALLIANCE PREPARATORY SCHOOLS INC

the top of this letter.

If we indicated at the top of this letter that you're required to file Form 990/990-EZ/990-N, our records show you're required to file an annual information return (Form 990 or Form 990-EZ) or electronic notice (Form 990-N, the e-Postcard). If you don't file a required return or notice for three consecutive years, your exempt status will be automatically revoked.

If we indicated at the top of this letter that an addendum applies, the enclosed addendum is an integral part of this letter.

For important information about your responsibilities as a tax-exempt organization, go to www.irs.gov/charities. Enter "4221-PC" in the search bar to view Publication 4221-PC, Compliance Guide for 501(c)(3) Public Charities, which describes your recordkeeping, reporting, and disclosure requirements.

We sent a copy of this letter to your representative as indicated in your power of attorney.

Sincerely,



Jeffrey I. Cooper
Director, Exempt Organizations
Rulings and Agreements

Enclosure:
Addendum

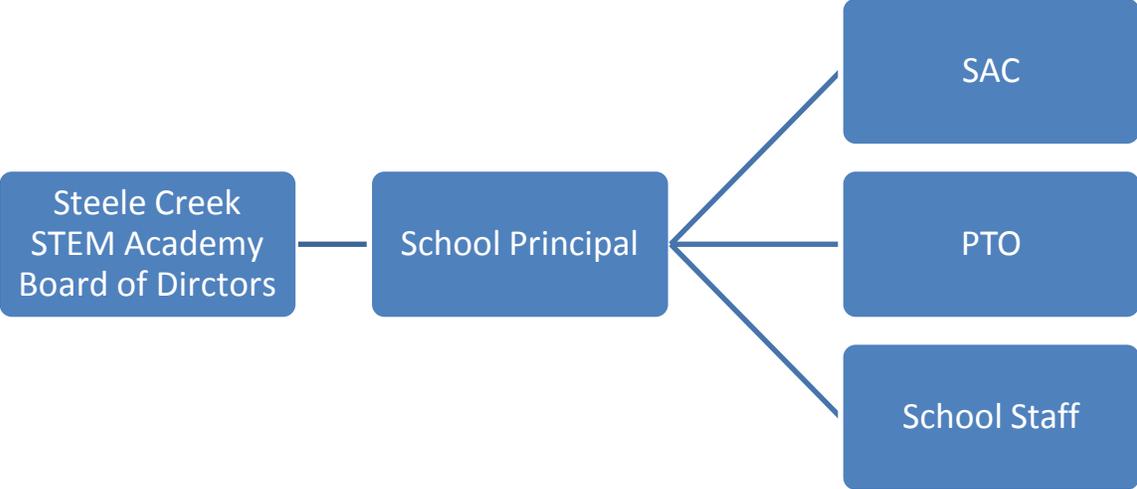
[Handwritten signature]

ALLIANCE PREPARATORY SCHOOLS INC

ADDENDUM

If you have been in existence for at least three years and you have not filed a Form 990 return or notice for three consecutive years, you may soon receive a letter (Notice CP120A) that we automatically revoked your exempt status, as required by law, for failure to file a return or notice for three consecutive years. This letter will serve to reinstate your exempt status, so you will not need to re-apply. However, you may need to file the appropriate delinquent Forms 990 for all years you have operated as a tax-exempt organization.

Steele Creek STEM Academy Organizational Chart



Appendix F:

Charter School Board Member Information Form

Note: To be completed individually by each proposed founding charter school board member. All forms must be signed by hand.

Serving on a public charter school board is a position of public trust and as a board member of a North Carolina public charter school; you are responsible for ensuring the quality of the school's entire program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the State Board of Education requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold: 1) to give application reviewers a clearer introduction to the applicant team behind each school proposal in advance of the applicant interview, in order to be better prepared for the interview; and 2) to encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. Name of charter school on whose Board of Directors you intend to serve:

Steel Creek STEM Academy

2. Full name: Jose Alberto Garcia

Home Address: 927 Littleton Dr. Concord, NC 28025

Business Name and Address: home:

Telephone No.: 954-445-1474

E-mail address: jag8236@gmail.com

3. Brief educational and employment history.

Education:

- 1) BS in Social Science from Florida State University 2001
- 2) MS School Administration from Gardner Webb University 2009
- 3) MBA from Grantham University 2016

Employment History:

- 1) High School Teacher, CMS 2007-Present
- 2) Dean of Students, CMS, 2013-2016
- 3) Special Investigator, Office of Personnel Management. 2001-2003

Have you previously served on a board of a school district, another charter school, a non-public school or any not-for-profit corporation?

Yes, Mallard Creek Stem Academy

How were you recruited to join this Board of Directors? Why do you wish to serve on the board of the proposed charter school?

I currently serve as Chairman of the Board for Mallard Creek STEM Academy. This is an opportunity to expand the great learning experiences that we currently provide to our students to other students in the Charlotte Metro Area.

- 6. What is your understanding of the appropriate role of a public charter school board member?**
1. To make decisions that serve the best interest of children within mandates of the state and align with our mission and core values.
 2. Collaboration with other members as well as community stake holders to best serve children
- 7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective board member.**
- I currently serve as Chairman of the Board for Mallard Creek STEM Academy.
- 8. Describe the specific knowledge and experience that you would bring to the board.**
- Current board member of a Successful Charter School
 - Administrative experience at the High School Level
 - Opened 3 new schools including a charter school throughout my career in education

School Mission and Program

- 1. What is your understanding of the school's mission and guiding beliefs?**
- Steel Creek STEM Academy's mission is to prepare students to solve problems and challenges of tomorrow that are yet to be defined by promoting a learning environment leveraging workshop and project based learning model to make them critical thinkers, problem solvers and lifelong learners with a focus in STEM principles.

- 2. What is your understanding of the school's proposed educational program?**

Steel Creek STEM Academy's education program:

- Caters to the learning needs of diverse population including students with disabilities, at-risk students, EC, UIC, ESL and AIG students
- For Science, Writing and Social Science curriculum, SCSA will develop the scope and material for both teachers and students to be successful in the class room and in assessments with a primary focus and implantation of STEM principles
- Partner with Discovery Place to help refine the curriculum to improve student's performance by use of technology, hands-on experience and onsite/offsite learning opportunities
- Leverage latest educational tools, technology and frameworks such as Case21, Mastery Connect, Project Lead the way (PLTW), Positive Behavioral Intervention and support(PBIS), ParentSquare etc.. to effectively manage educational, performance, behavioral and communication activities.

- 3. What do you believe to be the characteristics of a successful school?**

A school that is safe, inviting and nurturing to all students. This provides optimal conditions for student exploration and growth. In providing this environment a school must be financially solvent and can provide the expected service throughout time

- 4. How will you know that the school is succeeding (or not) in its mission?**

- Progress towards stated goals
- Enrollment trends
- Academic reports
- Stake Holder climate reports
- Financial reports

Governance

- 1. Describe the role that the board will play in the school's operation.**

- make policy for the sound operation of the school

- review and approve the school's operating budget
- review and approve curricular frameworks and standards for student achievement proposed by school leader
- emphasize the standard of continuous improvement of the school's operations
- do not micromanage the operations of the school

2. How will you know if the school is successful at the end of the first year of operation?

- Academic performance
- Enrollment
- Teacher turn over
- Financial solvency

3. How will you know at the end of five years of the schools is successful?

- Academic growth
- Continued increase in enrollment
- Student retention (keeping students over the 5year period)
- Teacher turn over
- Financial solvency

4. What specific steps do you think the charter school board will need to take to ensure that the school is successful?

Oversight of academic implementation
 Financial oversight
 Communicate with all community stake holders

5. How would you handle a situation in which you believe one or more members of the school's board were acting unethically or not in the best interests of the school?

Integrity in paramount for our board members, any question involving unethical behavior would be brought to the board a whole to be investigated and resolved based on state statute and Charter by-laws.

*Please include the following with your Information Form

- a one page resume
- a national criminal background check

*If you responded within the application that disciplinary action has been taken against any past or present professional licenses, provide a detailed response below outlining the disciplinary action taken and the license validity.

Certification

I, Jose Alberto Garcia, certify to the best of my knowledge and ability that the information I am providing to the North Carolina State Board of Education as a prospective board member for Steel Creek STEC Academy Charter School is true and correct in every respect.

[Signature]
 Signature

9/20/17
 Date

Appendix F:

Charter School Board Member Information Form

Note: To be completed individually by each proposed founding charter school board member. All forms must be signed by hand.

Serving on a public charter school board is a position of public trust and as a board member of a North Carolina public charter school; you are responsible for ensuring the quality of the school's entire program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the State Board of Education requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold: 1) to give application reviewers a clearer introduction to the applicant team behind each school proposal in advance of the applicant interview, in order to be better prepared for the interview; and 2) to encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. Name of charter school on whose Board of Directors you intend to serve: Steele Creek STEM Academy
Charter School

2. Full name: Christy Clemente Condon

Home Address: 18217 Captains Cove Lane, Cornelius, NC 28031

Business Name and Address: self-employed

Telephone No.: 704-960-0690

E-mail address: christycondon@gmail.com

3. Brief educational and employment history.

My life's work continues to be creating and curating resources for all learners. My work in the education industry over the last twenty-three years has taken me from the classroom to alternative educational settings. I have been a district curriculum writer and teacher-mentor. I was part of the writing and development team for K12's K-5 English Language program. For many years I worked with areas schools, students, and parents as an educational consultant/ learning specialist. Insight Education offered me a chance to create curriculum maps and lessons for schools/ school districts across the country through their MyCore app. At ReadWorks I served as a consultant for their reading comprehension product. I also created materials for and delivered virtual teacher development sessions. I have spent a great deal of time working with schools and teachers to create learning opportunities for all learners. As a mom to three children, and one with special needs, I know the importance of high-quality and adaptable curriculum and educators. Most recently, I am serving as a governing board member of Mallard Creek STEM Academy charter school in Charlotte, North Carolina.

4. Have you previously served on a board of a school district, another charter school, a non-public school or any not-for-profit corporation?

No:

Yes

5. How were you recruited to join this Board of Directors? Why do you wish to serve on the board of the proposed charter school?

As a member of Mallard Creek STEM Academy's governing board, I was asked about the possibility of sharing our school's success with others in the community through the opening of Steele Creek STEM Academy. Being a part of MCSA's founding, I have had the opportunity to see a good idea turn into something magical. I helped do some of those information meetings within the community before MCSA opened. I saw the faces on families looking for a new start and something different. As we began year two at MCSA, I looked around at our orientation gatherings to see many of those same faces lit up and at home in this place that we helped create. It would be my honor to be a part of a team (board) that can bring hope and new learning opportunities to another community in need.

6. What is your understanding of the appropriate role of a public charter school board member?

My role as a governing board member at a public charter school is to oversee the operational aspects of the school. Our role is not to oversee the day to day activities. Our focus is on ensuring the school's fiscal viability, legal compliance, school improvement, academic excellence, and board effectiveness.

7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective board member.

I have been serving on the Mallard Creek STEM Academy board since August 2015. I have had the honor to serve as the board's secretary.

8. Describe the specific knowledge and experience that you would bring to the board.

Serving on the MCSA board has been a challenge because it started before anything was really tangible. Getting to see our school and teachers in action, as well as having my own child there, allows me to evaluate how we executed our vision and perhaps how we might tweak things to make Steele Creek STEM Academy run even more effectively from the beginning.

School Mission and Program

1. What is your understanding of the school's mission and guiding beliefs?

The mission and guiding beliefs of Steele Creek STEM Academy will be similar to those of Mallard Creek STEM Academy. Steele Creek STEM Academy will promote high academic achievement by increasing student engagement through a workshop model that encourages and empowers students to take ownership of their learning.

2. What is your understanding of the school's proposed educational program?

The school will value the thinking process and expect students to answer and ask strong questions. Students will apply understanding by creating something new and coming to their own conclusions. Students discover their individual talents and abilities, and we encourage creativity and diversity. We focus on 21st century skills and expect all members of the school community to have a strong work ethic. We are student-centered and have created an environment where all members of the school community can feel comfortable and are expected to contribute. We provide high-quality, differentiated and challenging learning experiences and expect students to

give us their best each day. The school will implement programs such as Engineering is Elementary, Project Lead the Way, Teacher's College Reading and Writing Workshop, and other programs that support the workshop model. There will be an intention to incorporate Discovery Education's teacher training and units into the overall learning models.

3. What do you believe to be the characteristics of a successful school?
The characteristics of a successful school from a board's perspective is the school's fiscal viability, legal compliance, school improvement, academic excellence, and general school community well-being. On a personal note, I believe that when you walk into a school and are hit with the sights and sounds of teachers, students, and administrators doing what they do well you know it. As a school, we want to create a safe space where high-quality lessons are being taught by the most effective and talented staff.

4. How will you know that the school is succeeding (or not) in its mission?
As board members it is our responsibility to hear concerns of the community in our board meetings held monthly, as well as, to read and ask questions of the principal with regard to his/ her board report. We need to have strategies and/ or plans to target areas of concerns or development. Subcommittees may be tasked with delving deeper into areas of school development. Again, when visiting the school and the classrooms within it, it's often very apparent how things are going based on the sights and sounds happening.

Governance

1. Describe the role that the board will play in the school's operation.
The board will first play a key role in Steele Creek's Ready to Open process. This part will require more time and effort to be sure that the school opens and does so as effectively as possible. Soon after opening, the board will focus more on the school's viability and operations.

2. How will you know if the school is successful at the end of the first year of operation?
The school will be successful after its first year of operation if it has the ability to continue operating a second year. Being responsible stewards of the finances, employing stellar professionals, and recruiting and retaining a hopeful and energetic school community are all important barometers for our school's success.

3. How will you know at the end of five years of the schools is successful?
It cannot be overstated that the school itself must be in quality operational order and the finances of the school must be in a good state. We will have retained and attracted the most highly qualified educators and staff, as well as, continue to have grassroots community promotion for our program through our families. Our students' scores will be one measure of our school's success as will be our first students who go off to other schools and find success.

4. What specific steps do you think the charter school board will need to take to ensure that the school is successful?

The very first step that a charter school board need to do to ensure that the school is successful is to begin with a solid vision and committed group of people who are willing to see the vision through to fruition. We are that group of people. We are committed to the mission of Mallard Creek STEM Academy and have seen what a workshop model, STEM focused school can offer its children and plan to share this mission with the Steele Creek community. Much of the success of the school will be dependent on invigorating a grassroots interest in the school in order to be sure that seats are filled on day one of operation and every day that follows. The administration team is also integral to the initial success of the school.

5. How would you handle a situation in which you believe one or more members of the school's board were acting unethically or not in the best interests of the school?

The school's board must have an overarching policy of candor. We have important issues to discuss and those issues affect the lives of our children and their families, as well as staff/ family members. The board should have procedures in place to handle such situations, but the Chairman is the person that I would first approach with my concern. No one person makes up the board, so anyone on the board will be required to conduct themselves accordingly.

*Please include the following with your Information Form

- a one page resume
- a national criminal background check

*If you responded within the application that disciplinary action has been taken against any past or present professional licenses, provide a detailed response below outlining the disciplinary action taken and the license validity.

Certification

I, Christy C. Condon, certify to the best of my knowledge and ability that the information I am providing to the North Carolina State Board of Education as a prospective board member for Mallard Creek STEM Charter School is true and correct in every respect.

Christy C. Condon
Signature

09-20-17
Date

Appendix E:

Charter School Board Member Information Form

Note: To be completed individually by each proposed founding charter school board member. All forms must be signed by hand.

Serving on a public charter school board is a position of public trust and as a board member of a North Carolina public charter school; you are responsible for ensuring the quality of the school's entire program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the State Board of Education requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold: 1) to give application reviewers a clearer introduction to the applicant team behind each school proposal in advance of the applicant interview, in order to be better prepared for the interview; and 2) to encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. Name of charter school on whose Board of Directors you intend to serve: Steele Creek STEM Academy

2. Full name: Tyrone Harmon

Home Address: 6206 Castlecove Road, Charlotte, NC 28278

Business Name and Address: R.J. Leeper Construction, 601 Morris Street, Charlotte, NC 28202

Telephone No.: (704) 309-8150

E-mail address: tyrone@leeperconstruction.com

3. Brief educational and employment history.

B.S. Civil Engineering from North Carolina A&T State University, 4 years' experience working with Ryland Homes (field superintendent), 10 years' experience working with R.J. Leeper Construction (project manager, superintendent, and vice president)

4. Have you previously served on a board of a school district, another charter school, a non-public school or any not-for-profit corporation?

No:

Yes:

5. How were you recruited to join this Board of Directors? Why do you wish to serve on the board of the proposed charter school?

A board member asked me to join and provide my expertise in the construction industry. I wish to serve because I believe in charter school model and I want to volunteer my time to help a charter school become successful.

6. What is your understanding of the appropriate role of a public charter school board member?

My understanding is to ensure that the academic program at Steele Creek STEM Academy is successful, that the school's program and operation are conforming to its charter and that the school is a viable organization.

7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective board member.
I have spent the past 6 years managing the preconstruction and construction of several charter school projects.
8. Describe the specific knowledge and experience that you would bring to the board.
I will support the board with knowledge about facilities, budgets, and construction options for the new charter school.

School Mission and Program

1. What is your understanding of the school's mission and guiding beliefs?
To provide a learning environment in Science, Technology, Engineering, and Math, which will maximize individual's potential and ensure students are equipped to meet the community's challenges.
2. What is your understanding of the school's proposed educational program?
The school will be a STEM school and has emphasis on reading and writing program that improves academic achievement.
3. What do you believe to be the characteristics of a successful school?
Parent involvement, leadership, caring teachers, safe campus, and challenging academic programs.
4. How will you know that the school is succeeding (or not) in its mission?
Increase student growth, students excelling academically and financially sound.

Governance

1. Describe the role that the board will play in the school's operation.
Support school leaders, ensure effective organizational planning, ensure, and manage resources effectively.
2. How will you know if the school is successful at the end of the first year of operation?
Student target numbers are met, budgets are maintained and an active PTO.
3. How will you know at the end of five years of the schools is successful?
Student targets are met, school has moved into a permanent facility, and school exceeds standard of the North Carolina School Report Card.
4. What specific steps do you think the charter school board will need to take to ensure that the school is successful?
Monitor services and programs, ensure legal and ethical integrity and maintain accountability, keep informed about the school and its issues by reviewing materials, participating in discussions, and asking strategic questions.
5. How would you handle a situation in which you believe one or more members of the school's board were acting unethically or not in the best interests of the school?
A board member acting unethically would need to be removed from his/her position and our by-laws/policies allow for this action to be taken.

*Please include the following with your Information Form

- the school board is appointment and operational
- enrollment goals were met for year 1 and solid plan for community reach to meet year 2 enrollment goals
- academic programs are initiated with feedback loop
- school's operational programs comply with all terms of its charter
- the school is compliant in all statutory and regulatory requirements
- the school is financially solvent
- competent, professional staff are hired to carry out the operational plan

3. How will you know at the end of five years of the schools is successful?

The success of the school is based on it meeting or exceeding the following five-year metrics that were established in the Charter School Application:

- a. Student enrollment projections
- b. Fund balances projections
- c. Academic goals
- d. Part and full-time staff projections
- e. Regulatory requirements

In addition to qualitative metrics, the school should have built a strong relationship with the parents, student and the community

4. What specific steps do you think the charter school board will need to take to ensure that the school is successful?

Communicate regularly with the school board and the school staff. Find out what we can do collectively to have academic achievement for all students, monitor the progress of students at the end of each semester, and oversee our finances so we can continue to move forward.

5. How would you handle a situation in which you believe one or more members of the school's board were acting unethically or not in the best interests of the school?

Bring all members to the table including the persons of concern. Discuss the matters at hand and come up with a solution that everyone can buy into. Making sure that everyone realizes that whatever decision we make, should always be in the best interest of the students and our school

*Please include the following with your Information Form

- a one page resume
- a national criminal background check

*If you responded within the application that disciplinary action has been taken against any past or present professional licenses, provide a detailed response below outlining the disciplinary action taken and the license validity.

Certification

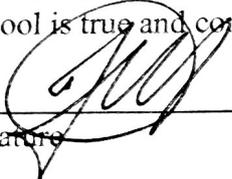
- a one-page resume
- a national criminal background check

*If you responded within the application that disciplinary action has been taken against any past or present professional licenses, provide a detailed response below outlining the disciplinary action taken and the license validity.

Certification

I, Tyrone Harmon, certify to the best of my knowledge and ability that the information I am providing to the North Carolina State Board of Education as a prospective board member for _Steele Creek STEM Academy Charter School is true and correct in every respect.

Signature



9/20/17

Date

Appendix E:

Charter School Board Member Information Form

Note: To be completed individually by each proposed founding charter school board member. All forms must be signed by hand.

Serving on a public charter school board is a position of public trust and as a board member of a North Carolina public charter school; you are responsible for ensuring the quality of the school's entire program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the State Board of Education requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold: 1) to give application reviewers a clearer introduction to the applicant team behind each school proposal in advance of the applicant interview, in order to be better prepared for the interview; and 2) to encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. Name of charter school on whose Board of Directors you intend to serve: Mallard Creek STEM Academy

2. Full name: Kellen Nixon

Home Address: 1208 North Caldwell Street, Charlotte, NC 28206

Business Name and Address:

Telephone No.: 704-619-6248

E-mail address: kellenn@discoveryplace.org

3. Brief educational and employment history.

Senior Director, STEM Education and Discovery Place Education Studio

Bachelors of Science, Public Management and Masters of Public Administration; Florida Agricultural & Mechanical University

4. Have you previously served on a board of a school district, another charter school, a non-public school or any not-for-profit corporation?

No: Yes:

5. How were you recruited to join this Board of Directors? Why do you wish to serve on the board of the proposed charter school?

Deanna Smith, Mallard Creek's Principal, reached out and invited me to apply. As a strategic teacher professional development partner of Mallard Creek, I feel like my experience with and understanding of Mallard Creek's teachers can help inform the school's strategic plan and other STEM Ed efforts.

What is your understanding of the appropriate role of a public charter school board member?

As a Mallard Creek Board Member, I will work with my fellow board members to ensure the academic success of the students we have the pleasure of serving. In doing so, making sure that the academy's financial and operational plans are functioning at their highest levels.

7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective board member.
Most recently, I serve on the Florida Association of Museum's board for 3 years. My primary functions included serving as the Chair of the Education Community and helping to plan quarterly meetings throughout the state that culminated into an annual conference supporting nearly 1,500 attendees. Additionally, I served as a board member for The Central Florida STEM County and Florida's Space Grant Consortium. I've also served on a host of local, state, and national-level committees such as the Association of Science & Technology Centers' (ASTC) Development and Conference Planning committees.
8. Describe the specific knowledge and experience that you would bring to the board.
With nearly a decade of leadership experience in informal STEM learning institutions, I bring an innovative, entrepreneurial spirit to the STEM teaching and learning process. I also served as a VP of Development, raising nearly 3 million dollars annually.

School Mission and Program

1. What is your understanding of the school's mission and guiding beliefs?
Mallard Creek's mission and guiding beliefs are all focused on empowering teachers to provide an innovative, inquiry-based STEM teaching and learning environment that places their students at the center of these academically rigorous efforts.
2. What is your understanding of the school's proposed educational program?
Mallard Creek's educational program is deeply rooted in Problem Based Learning (PBL) pedagogy that is focused on developing the next generation of problem solvers and innovators. Furthermore, exposing its teachers and students to emergent technologies such as 3D Printing and Robotics that speak to the application of the newly develop skillsets.
3. What do you believe to be the characteristics of a successful school?
A innovative, student-center learning environment that provides academic rigor and encourages personal excellence for its teachers, students and their families.
4. How will you know that the school is succeeding (or not) in its mission?
A key indicator of successful school is a prevailing culture that promotes collaboration between its teacher and students. When done correctly, students are at the center of creating this culture.

Governance

1. Describe the role that the board will play in the school's operation.
As a Mallard Creek Board Member, I will work with my fellow board members to ensure the academic success of the students we have the pleasure of serving. In doing so, making sure that the academy's financial and operational plans are functioning at their highest levels.
2. How will you know if the school is successful at the end of the first year of operation?
Key indicators are student achievement as it relates to Mallard Creek's intended learning outcomes. Teacher retention and self-efficacy in teaching innovative, inquiry-based STEM concepts.
3. How will you know at the end of five years of the schools is successful?

With being Mallard Creek being a K-8 Charter School, within 5 years the initial 8th grade graduates are reflective of the school's academic achievement based their post-secondary decisions. Additionally, the school should be deeply engaged in its community and serving as innovative STEM teaching and learning system deserving of local, state, and national recognition.

4. What specific steps do you think the charter school board will need to take to ensure that the school is successful?
Each board member must leverage his or her resources to support the success of Mallard Creek. We are also responsible for holding the Principal Smith and her leadership team accountable for achieving its academic, operational, and fiscal goals.
5. How would you handle a situation in which you believe one or more members of the school's board were acting unethically or not in the best interests of the school?
It is my personal and civic responsibility to hold myself, as well as my fellow board members to highest ethical standard. I expect our board to not only move swiftly in correcting the issues, but adopt policies that lessen the chances of such actions happening again.

*Please include the following with your Information Form

- a one page resume
- a national criminal background check

*If you responded within the application that disciplinary action has been taken against any past or present professional licenses, provide a detailed response below outlining the disciplinary action taken and the license validity.

Certification

I, Kallon Nixon, certify to the best of my knowledge and ability that the information I am providing to the North Carolina State Board of Education as a prospective board member for Mallard Creek Charter School is true and correct in every respect.

[Handwritten Signature]

Signature

9/20/17

Date

Appendix F:

Charter School Board Member Information Form

Note: To be completed individually by each proposed founding charter school board member. All forms must be signed by hand.

Serving on a public charter school board is a position of public trust and as a board member of a North Carolina public charter school; you are responsible for ensuring the quality of the school's entire program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the State Board of Education requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold: 1) to give application reviewers a clearer introduction to the applicant team behind each school proposal in advance of the applicant interview, in order to be better prepared for the interview; and 2) to encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. **Name of charter school on whose Board of Directors you intend to serve:** Steel Creek STEM Academy (SCSA) – (Not sure if this is the name and Acronym of the school?)

2. **Full name:** Vishwanthini A Cook

Home Address: 11523 Fox Trot Dr, Charlotte NC 28269

Business Name and Address

Telephone No.: 704-999-5378

E-mail address: vwanthini@mcstemacademy.org

3. Brief educational and employment history.

Education:

- 1) Chemical Engineering, Bachelor of Science at Anna University, Chennai, India from Aug 1995 to May 1999
- 2) Master of Business Administration at UNC Charlotte, NC USA from Jan 2016 to Jun 2018

Employment History:

- 1) Sr. Project Manager at *Lowe's Companies Inc.*, Mooresville, NC from Mar 2011 to present
- 2) Test Lead at *Infosys Technologies (Wells Fargo)*, Charlotte, NC from Aug 2006 – Feb 2011
- 3) Information Analyst at *Electronic Data Systems*, Chennai, India from Jan 2003 – Apr 2006
- 4) Mainframe Junior Programmer at *Dexterity Business Analyst*, Chennai, India from Jan 2000 – Dec 2002

4. **Have you previously served on a board of a school district, another charter school, a non-public school or any not-for-profit corporation?**

Yes

5. **How were you recruited to join this Board of Directors? Why do you wish to serve on the board of the proposed charter school?**

I am currently serving on the board of Mallard Creek STEM Academy(MCSA) and was requested by the board and leadership team supporting MCSA to join the board of Steel Creek STEM Academy and I accepted the offer.

I bring over 17 years of experience in Information Technology (IT) field and I am passionate about STEM education. Also, being on the board of MCSA helped me appreciate the impact STEM schools can make to build our kids for the future. I am grateful for an opportunity to make a difference and help build a better education system.

6. What is your understanding of the appropriate role of a public charter school board member?

Following is my understanding of the role of public charter school board member

1. Collaborate in developing the mission for the charter school
2. Identifying individuals with appropriate skills, knowledge and talent as school leaders.
3. Providing necessary support to the school leader, holding them accountable to turn the school's mission into reality and overseeing their performance on a regular basis
4. Participate and provide feedback on the strategy, planning and fund-raising activities for the school
5. Provide appropriate oversight of school finances, ensure accurate and comprehensive financial reporting
6. Nominating and orienting new board members
7. Oversight of the academic program by ensuring that the school's educational program is positively impacting student achievement
8. Participate and/or lead committees as appropriate as the board matures for efficient operation

7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective board member.

I am currently serving as a board at Mallard Creek STEM Academy (MCSA)

8. Describe the specific knowledge and experience that you would bring to the board.

Following is the list of specific knowledge and experience that I bring to this board.

- **Experience in Science, Technology, Engineering and Math field:** I have 17+ years of experience in the Information Technology field with degree in Chemical Engineering from a prestigious Indian University. In 2014, I was awarded the Rising Star-Women of Color STEM Award. As a life-long learner, I am currently pursuing my MBA from the Belk School of Business at UNCC
- **Teach Computer Programming:** I volunteer and teach computer programming to kids at Blythe Elementary school using freely available resources. I will be able to work with the school administration to support computer education at SCSA
- **Business and Project Management Skills:** I have executed multimillion-dollar projects from idea inception to planning through delivery and realization. I am highly organized and great with prioritization and time management. I can leverage my skills in financial management, human resource management, risk management, sourcing and vendor management to help the school and board with long term planning and operation efficiencies.
- **Leadership, coaching and mentorship:** In my current role, I manage over 50+ cross functional team members across the Enterprise using influence and leadership skills, with no direct reporting relationship. As a people manager, I have also coached, mentored and helped my direct reports with career planning. Leveraging these skills, I will be able to collaboratively work with the board, principal, teachers and other stakeholders inside and outside the school to deliver tangible outcomes.
- **Professional network:** I have worked in multiple Fortune 50 company and I am currently an employee of Lowe's. I have worked in the Charlotte Area for the last 10 years and have built a strong professional network, which I can leverage for the benefit of the school.

School Mission and Program

1. What is your understanding of the school's mission and guiding beliefs?

Steel Creek STEM Academy's mission is to prepare students to solve problems and challenges of tomorrow that are yet to be defined by promoting a learning environment leveraging workshop and project based learning model to make them critical thinkers, problem solvers and lifelong learners.

2. What is your understanding of the school's proposed educational program?

Steel Creek STEM Academy's education program:

- a) Caters to the learning needs of diverse population including students with disabilities, at-risk students, EC, ELL, ESL and AIG students
- b) Leverages the NC Common Core for Reading and Math
- c) For Science, Writing and Social Science curriculum, SCSA will develop the scope and material for both teachers and students to be successful in the class room and in assessments
- d) Partner with Discovery Place to help refine the curriculum to improve student's performance by use of technology, hands-on experience and onsite/offsite learning opportunities.
- e) Leverage latest educational tools, technology and frameworks such as Case21, Mastery Connect, Project Lead the way (PLTW), Positive Behavioral Intervention and support(PBIS), ParentSquare etc.. to effectively manage educational, performance, behavioral and communication activities.
- f) Provide effective and productive class room environment

3. What do you believe to be the characteristics of a successful school?

With constant scientific and technological innovation, learning can no longer be about acquiring knowledge at school and later applying the knowledge at work. Learning should take place on an on-going basis and we should develop students to be life-long learners. My vision for an ideal educational environment is for schools to help students learn theoretical concepts, appreciate their significance and get hands-on experience using the concepts to solve real world problems through project based learning. The environment should provide a platform for students to collaborate, share ideas, ask questions, make mistakes, build positive attitude, solve problems, think critically, make decisions and develop strong social skills. The evidence of learning should not only be through exams and tests, but also through projects, journals and presentations they create.

4. How will you know that the school is succeeding (or not) in its mission?

- a) Tightly align the goals and objectives to the vision and mission of the school
- b) Establishing clear, qualitative and quantitative data oriented goals and objectives for performance of the school, school leader, students and staff
- c) Clear communication and buy-in from the various stakeholders on the goals and objectives and expectations on meeting those goals.
- d) Monitor, control and course correct (as needed) on a regular basis.

If these steps are followed, during the monitor and control step of this process there is an opportunity to proactively address any issue in the way of the school achieving delivering on its mission.

Governance

1. Describe the role that the board will play in the school's operation.

- a. make policy for the sound operation of the school
- b. review and approve the school's operating budget
- c. review and approve curricular frameworks and standards for student achievement proposed by school leader
- d. emphasize the standard of continuous improvement of the school's operations
- e. do not micromanage the operations of the school

2. How will you know if the school is successful at the end of the first year of operation?

I will be able to evaluate the success of the school if:

- the right school leader is appointed and on-boarded in a timely fashion and is fully functional

I, VISHWANTHINI. A. COOK, certify to the best of my knowledge and ability that the information I am providing to the North Carolina State Board of Education as a prospective board member for STEEL CREEK SEMINOLE Charter School is true and correct in every respect.


Signature

9/20/2017
Date

Appendix F:

Charter School Board Member Information Form

Note: To be completed individually by each proposed founding charter school board member. All forms must be signed by hand.

Serving on a public charter school board is a position of public trust and as a board member of a North Carolina public charter school; you are responsible for ensuring the quality of the school's entire program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the State Board of Education requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold: 1) to give application reviewers a clearer introduction to the applicant team behind each school proposal in advance of the applicant interview, in order to be better prepared for the interview; and 2) to encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

1. Name of charter school on whose Board of Directors you intend to serve: Mallard Creek Stem Academy
2. Full name: Michelle Gilbert Domenech

Home Address: 5651 Lansing Dr Charlotte NC 28270

Business Name and Address: I.C.London 4310 Sharon Rd Unit T 13 Charlotte NC 28211

Telephone No.: (704)619-7955

E-mail address: sdomenech@att.net

3. Brief educational and employment history.
Graduated from University of NC Asheville with a Bachelor's in Management. I have owned my own retail women's clothing store since 1992.
4. Have you previously served on a board of a school district, another charter school, a non-public school or any not-for-profit corporation?

No: X Yes
5. How were you recruited to join this Board of Directors? Why do you wish to serve on the board of the proposed charter school?
I have been friends with Jennifer Lucas for many years and she asked me to be a part of the board
6. What is your understanding of the appropriate role of a public charter school board member? I believe the board is responsible for overseeing the management of the school to be sure that they are meeting academic goals for students, adhering to policies and procedures and meeting their financial obligations.
7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective board member.

I have not served on any other board but having 25 years experience as an entrepreneur has given me many skills that enable me to be an effective board member. I am also a mother with school age children and I genuinely care that we are providing a safe, organized place for local children to learn and excel.

8. Describe the specific knowledge and experience that you would bring to the board.

I have a degree in management with a specialization in marketing. I understand how important communication is and working with people.

School Mission and Program

1. What is your understanding of the school's mission and guiding beliefs?

Mallard Creek Stem academy is providing their community with a STEM focused elementary and middle school that gives their students a workshop model for learning.

2. What is your understanding of the school's proposed educational program?

I believe that because the school's administration has hired a great staff with exceptional training, educational background and the affiliation with Discovery Place will result in a school with high academic achievement.

3. What do you believe to be the characteristics of a successful school?

Where students excel, the staff is happy and retention rate is high for both teachers and students. A successful school needs great leadership in their administration. Meeting goals and being financially sound is also extremely important.

4. How will you know that the school is succeeding (or not) in its mission?

I will attend monthly board meetings, ask questions of the administration and management and stay involved in the growth of the school.

Governance

1. Describe the role that the board will play in the school's operation.

As a board member, I do not expect to play a role in the schools daily operation but oversee the management of the school.

2. How will you know if the school is successful at the end of the first year of operation?

Our school had a great first year. Most of our teachers returned this year, there is a wait list for students that would like to attend our school and our administration did a fantastic job with the first year which is always a challenge for any business.

3. How will you know at the end of five years of the schools is successful?

If the school is able to show the students are excelling, there is low turnover on their staff, the enrollment is keeping the school in a healthy financial situation.

4. What specific steps do you think the charter school board will need to take to ensure that the school is successful?

We need to be vigilant in our observation of the growth and management of the school. Take action when needed to keep the school on a successful track.

5. How would you handle a situation in which you believe one or more members of the school's board were acting unethically or not in the best interests of the school?

I do not have any problem with dealing with another board member that is not being professional, ethical or responsible when it comes to children, their education and safety and parents that trust the school to take care of their children. I would vote to remove a board member that was jeopardizing the success of our school.

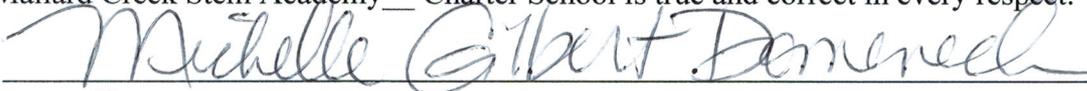
*Please include the following with your Information Form

- a one page resume
- a national criminal background check

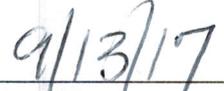
*If you responded within the application that disciplinary action has been taken against any past or present professional licenses, provide a detailed response below outlining the disciplinary action taken and the license validity.

Certification

I, _____ Michelle Gilbert Domenech _____, certify to the best of my knowledge and ability that the information I am providing to the North Carolina State Board of Education as a prospective board member for Mallard Creek Stem Academy_ Charter School is true and correct in every respect.



Signature



Date

Jose A. Garcia

927 Littleton Dr. - Concord, NC 28025

(954) 445-1474 - jag8236@gmail.com

EDUCATION

Master of Business Administration, December 2015
Grantham University, Kansas City, MO

Master of Arts in Education, December 2010
Gardner-Webb University, Boiling Springs, NC
School Administration

Bachelor of Science, August 2001
Florida State University, Tallahassee, FL
Major: Social Science

CERTIFICATIONS

Principal Licensure, K-12 Physical Education, 9-12 Business Education, Middle Grades Mathematics

TEACHING EXPERIENCE

- ❖ Mallard Creek High School, Charlotte, NC 2015-Present
 - Teacher – Physical Education
- ❖ Olympic High School, Charlotte, NC 2013-2015
 - Dean of Students – Executive Leadership and Entrepreneurial Development
- ❖ Ardrey Kell High School, Charlotte, NC, 2011-2013
 - Teacher – 9th-12th Grade CTE - Principles of Business and Finance
- ❖ Central Cabarrus High School, Concord, NC, 2010-2011
 - Teacher - 9th Grade Algebra I
- ❖ Access Academy, Charlotte, NC, 2009-2010
 - Education Coordinator/Lead instructor grades 5 thru 11
- ❖ Mallard Creek High School, Charlotte, NC, 2007-2009
 - Teacher – 9th grade thru 12th grade Math – Geometry, Tech Math I/II, and Statistics
- ❖ Everglades High School, Miramar, FL, 2003-2007
 - Teacher – 9th/10th Grade Math – Algebra I and Geometry

ADMINISTRATIVE EXPERIENCE

- ❖ Student Discipline – Parent contact and legal correspondence for disciplinary issues
- ❖ Technology Facilitator – Guided and trained staff on technology initiatives
- ❖ Staff Development – Implemented policies and procedures to enhance the educational experience for students.
- ❖ Program Evaluation – Evaluated and improved educational environment with a day treatment facility
- ❖ Data Analysis – Analyzed student and teacher data to predict and improve student achievement
- ❖ Transportation Coordinator – Ensured safe and adequate transportation for students' daily commute to and from school
- ❖ Student Scheduling – Developed a master schedule and scheduled classes for all students and staff
- ❖ School Initiatives – Designed and implanted a school wide “Homeroom” rotation to allow more time for student driven instruction
- ❖ Athletics – Provided athletic coverage as “Administrator on site” for various sporting events

Christy Clemente Condon
18217 Captains Cove Lane
Cornelius, North Carolina 28031
704.960.0690
christyccondon@gmail.com

Summary of Qualifications

Twenty-three years of educational leadership and practice
Teacher training and development specialist
Lesson and curriculum developer

Key Related Experiences

- ✓ Licensed teacher in North Carolina, New York State, Virginia, and Massachusetts; tenured in New York State (permanently certified)
- ✓ Nationally Board Certified Teacher (www.nbpts.org), 2000
- ✓ Board member of a STEM-based charter school, participated in NC DPI governance and leadership training on topics and issues facing schools (MTSS, EC, etc.).
- ✓ Designed and conducted online and in-person training for best-in-class reading comprehension practices for teachers in high-risk NYC schools.
- ✓ Planned and designed K-12 English Language Arts (ELA) content maps and teacher training for client (charter school consortium in IL).
- ✓ Worked as a member of a multi-tiered system of support (MTSS) team to: identify students' areas of development, provide opportunities for growth, manage the implementation of development plans, and continue assessment of future coaching needs.
- ✓ Led instructional designers, graphic artists, writers, and developers to design and carry out high-quality educational curriculum for various clients.
- ✓ Created high-quality materials to meet the various learning needs of students, especially children with special needs.
- ✓ Teamed with speech and language pathologists, social workers, occupational therapists, and physical therapists to design and deliver engaging and innovative techniques for students with more challenging learning needs.
- ✓ Acted as a liaison between professionals, families, and clients in times of conflict and concern in order to reach outcomes that best fit the needs of my clients.
- ✓ Cultivated student learning opportunities using varied learning strategies and programs including: Open Circle, Columbia Teachers College Reading and Writing Workshop, Discovery Education STEM workshop modules, interactive notebooks, Socratic seminars, inquiry-based projects, writing frames and scaffolding, etc.
- ✓ Used educational technology to extend and enrich student learning through Smartboards, Popplet, Glogster, Discussion Boards, PowerPoint, Prezi, etc. wherever it enhanced engagement and understanding.

Career Progression

Mallard Creek STEM Academy, Charlotte, NC **Founding Governing Board Member, August 2015-present**

- Helped open and successfully launch a STEM-based charter school in August 2016 as one of six governing board members. Currently serving as Board secretary.
- Assisted in creating and curating materials (curriculum, facility, safety, oversight, federal and state funded projects/ laws) for Ready to Open submission and approval with the State.
- Helped recruit, interview, and hire key administrative and instructional staff.
- Assisted in the planning and development of teacher/ staff training using best learning practices
- Led multiple information meetings for area families and served as an ambassador to new families, staff, and children.
- Implemented short and long-term board goals through monthly board meetings and ongoing reviews.

Michelle Domenech

5651 Lansing Dr
Charlotte NC 28270

home: 704-364-1075
cell: 704-619-7955

iclondonlingerie@yahoo.com

Executive Profile

Relocated family business to Charlotte in 1992, changed the name to "I.C.London" and re-branded the women's lingerie store. After 10 years in business, I opened a second location. Managed two stores from 2002-2013. Recently condensed two locations to one central location.

Skill highlights

- Retail store management and customer service
- Hire and train employees
- Marketing, social media and Advertising
- Merchandising
- Buying
- Managing financials and Budget planning
- Inventory analysis and control
- Business development and community outreach
- Vendor relationships

Core Accomplishments

Successfully opened and operated 4 lingerie store sites over the past 21 years.

Professional Experience

Owner and President
I.C.London

Sept 1992-present

I.C.London is a full service lingerie store known for offering a unique selection of fine lingerie, sleepwear, loungewear and shapewear. Professional bra fitters on staff. Offers the largest selection of bra sizes in the Charlotte Metro area.

Education

Bachelors of Science University of NC in Asheville-management
Asheville North Carolina

Kellen R. Nixon, MPA

1208 North Caldwell Street, Charlotte, NC 28206

Cell: 704.619.6248

kellenmixon@gmail.com

Professional Preparation

Masters of Applied Social Sciences (MASS), Public Administration, **Florida Agricultural & Mechanical University (FAMU)**, 2005

Bachelors of Science in Public Management, **FAMU**, 2004

Appointments

Bank of America STEM Center for Career Development (Discovery Place Education Studio)

January 2016-Present

Director

- Provide leadership in all Teacher Professional Development (TPD) being offered to K-12 educators throughout the Carolinas with a focus on Problem Based Learning (PBL), Engineering Design, and emerging technologies such as Robotics, 3D Printing, Coding, and Digital Interfacing. Also responsible for soliciting, brokering, solidifying, and managing strategic partnerships with surrounding school districts and external stakeholders such as Charlotte's growing STEM industry resulting in 1.3 million dollars in revenue.
- Supervisor: Catherine Wilson Horne, President/CEO

Museum of Science & Industry (MOSI)

Deputy Director of Development

July 2014-December 2015

- Led a \$3.5 million dollar annual fundraising strategy with the core responsibilities of identifying goals and fundraising targets with regular progress reports to the President; developing strategic fundraising strategies that result in mutually-beneficial, long range partnerships for the museum; and managing donor relationship that continue to fuel these efforts
- Supervisor: Molly Demeuleneare, President and CEO

Orlando Science Center (OSC)

Director of Educational Development

February 2009-June 2014

- Served as Lead on grant-funded & special projects pertaining to OSC educational programming, exhibits, E-Learning, and various campaign efforts totaling over \$2.3 million dollars in operating revenue annually. Brokered, solidified, and managed corporate-focused educational partnerships such as Siemens Energy, Department of Defense, Orlando Utilities Commission (OUC), Duke Energy, Northrop Grumman, JP Morgan Chase, SAIC, Lockheed Martin, Wal-Mart Foundation, AT&T and Bright House Networks on an annual basis.
- Supervisor: JoAnn Newman, President and CEO

Synergistic Activities *(not exhaustive, but comprehensive)*

Board Member/Chair	Florida Association of Museums (FAM) Education Committee	2015, 2016
Board Member	The Central Florida STEM Council	2012 to 2014
Member	Florida STEM Education Task Force	2011
Board Member	Florida Space Grant Consortium	2009 to 2014

Tyrone Harmon

6206 Castlecove Road
Charlotte, North Carolina 28278
twharmon@gmail.com
704.309.8150

PROFESSIONAL EXPERIENCE

R.J. Leeper Construction Vice President & Director of Business Development / 2007 – Present

- Strategic planning
- Forecasting & projections
- Finance & cash flow analysis
- Marketing strategies
- Proposal submission
- Project planning and strategy
- Client relationship management
- Increased company revenues from \$5 million to \$35 million
- MWBE & Section 3 project strategy and oversight
- Contract negotiations
- Various construction delivery methods: Construction Manager at-Risk, Single Prime Bid, Design-Build, Design-Assist, & Construction Manager Agent

EDUCATION & PROFESSIONAL CERTIFICATIONS

Licensed General Contractor:
North Carolina, 2005 (#32416)
South Carolina, 2009 (#G116281)
Virginia, 2012 (#2705137686)

LEED AP, 2009
OSHA 10 HR, 2008

North Carolina Agricultural & Technical State University, Greensboro, North Carolina
Bachelors of Science Civil Engineering, May 2003

Dartmouth College Executive Management Training – 2014
UNC Chapel Hill Executive Management Training – 2011

TECHNOLOGY & EQUIPMENT

BIM 360 Field	Field quality control software
Blue Beam	Constructability review & project management software
CITRIX Platform & Foundation	Project management & accounting software
Microsoft Products	Project – scheduling; Office – Excel, Word, Power Point

VISHWANTHINI COOK

EDUCATION

Master of Business Administration <i>UNC Charlotte, NC USA</i>	Jan 2016 – Jun 2018
Chemical Engineering, Bachelor of Science <i>Anna University, Chennai, India</i>	Aug 1995 – May 1999

WORK EXPERIENCE

Sr. Project Manager <i>Lowes Companies Inc., Mooresville, NC</i>	Mar 2011 – present
Test Lead <i>Infosys Technologies (Wells Fargo), Charlotte, NC</i>	Aug 2006 – Feb 2011
Information Analyst <i>Electronic Data Systems, Chennai, India</i>	Jan 2003 – Apr 2006
Mainframe Junior Programmer <i>Dexterity Business Analyst, Chennai, India</i>	Jan 2000 – Dec 2002

BOARD MEMBERSHIP

Board Member <i>Mallard Creek STEM Academy, Charlotte, NC</i>	May 2016 – Present
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AWARDS

WoC STEM 2014 Rising Star award

PROFESSIONAL CERTIFICATIONS

Project Management Professional (PMP)
Certified Scrum Master (CSM)
Information Technology Information Library (ITIL)
The Open Group Architecture Foundation (TOGAF)
CompTIA Security+

OTHER ACTIVITIES

Instructor - Code.org curriculum for 3rd, 4th and 5th Graders
Blythe Elementary School, Charlotte, 28078

Bylaws of Alliance Preparatory Schools, Inc.

ARTICLE I ORGANIZATION

I.1 Name: This corporation shall be known as Alliance Preparatory Schools, Inc. (the “Corporation”). The charter school shall operate under the corporation as Alliance Preparatory Schools.

I.2 Principal Office: The Corporation’s principal office, known place of business and place where its records shall be kept, will be located in Charlotte-Mecklenburg County, North Carolina or such other place as designated by the Board of Directors.

I.3 Registered Office: The registered office of the Corporation required by law to be maintained in the State of North Carolina may be, but not need to be, identical with the principal office.

I.4 Other Offices: The Corporation may have offices at such other places, as the Board of Directors may from time to time determine, or as the affairs of the corporation may require.

I.5 Corporate Seal: No instrument executed by or on behalf of the Corporation shall require a corporate seal for validity, but if a corporate seal is used, the Board of Directors shall approve them.

I.6 Fiscal year: The fiscal year of the Corporation shall begin on the first day of July and end on the last day of June next succeeding.

I.7 Registered Agent: The name and address of the Corporation’s registered agent is US Corporation agents, Inc.
101 N. Brand blvd Glendale CA 91203

ARTICLE II PURPOSE

II.1 Purpose: The sole and exclusive purpose of the Corporation shall be to establish and operate a Charter School under the Charter School Act of 1996, as codified in North Carolina Statues 115C-238.29A et seq.

ARTICLE III MEMBERS

III.1 Members: There shall be no members of this non-profit Corporation.

ARTICLE IV BOARD OF DIRECTORS

IV.1 General Powers: All corporate powers shall be exercised by or under the authority of, and the business and affairs of the Corporation shall be manage by, the Board of Directors or by such committees as the Board of Directors may establish pursuant to these by laws.

IV.2 Number and Term: The Board of Directors shall consist of a minimum of five (5) and a maximum of nine (9) Directors. The actual number of Directors shall be determined from time-to-time at the discretion of the board. Directors shall serve for terms of three years, or until their successors assume office. Board seats shall have staggered terms such that 1/3 of the positions expire each year. Directors may serve for a maximum of two consecutive terms with a one-term waiting period required before being eligible for re-election.

IV.3 Election: The Board members shall be elected by a majority vote of the Board of Director’s members, or by such committees as the Board of Directors may establish pursuant to these bylaws.

IV.4 Composition: Employees of the Corporation eligible to receive benefits and contractors employed by the Corporation shall not be eligible to serve as Board of Director's members. Members of the Board of Directors should also not be related to one another. At all times the Board of Directors' membership should strive to reflect the diversity of the school community.

IV.5 Authority: The powers of the Board of Directors shall include, without limitation, the authority to do the following:

IV.5.1 Appointments: Appoint, remove, replace and supervise all the Corporation's officers and any of the Corporation's employees.

IV.5.2 Investments: Invest and expend Corporation funds in order to execute the Corporation's business.

IV.5.3 Agents: Employ or discharge agents, employees and independent contractors

IV.5.4 Agreements: Negotiate and enter into agreements, subcontracts, and develop and conduct the Corporation's business and otherwise execute the Corporation's intent and purpose.

IV.5.5 Insurance: Obtain liability, property and other insurance necessary to protect the Corporation's assets, business and properties, as well as the Corporation's officers, Directors, managers, and employees.

IV.5.6 Litigation: Execute litigation on collection matters for payments due to the Corporation for services rendered by or arranged by the Corporation.

IV.5.7 Borrowing: Borrow money for Corporation purposes.

IV.5.8 Documents: Execute instruments or documents necessary to carry out Corporation business.

IV.5.9 Procedures: Establish procedures, policies, and guidelines for the Corporation which shall be implemented and followed by the Corporation's officers, employees, and independent contractors.

IV.6 Policies and Procedures: The Board of Directors shall be authorized from time to time to adjust, amend and repeal policies and procedures as it may deem necessary or appropriate to govern the Corporation's operations.

IV.7. Action by the Board of Directors: A majority vote is required for the Board of Directors to act or take action upon decisions.

IV.8 Compensation: Unless otherwise expressly provided by resolution by the Board of Directors, no Director shall receive any compensation for his or her services as Director. From time to time, members of the Board of Directors shall be compensated or reimbursed for actual expenses, if any, for services rendered and approved in the name of the Corporation, by majority vote of The Board of Directors.

IV.9. Committees: The Board of Directors may establish, from time to time and at its discretion, committees to accomplish the goals and objectives of the Corporation and its programs. Such committees shall have such responsibilities as the Board of Directors shall specify. Committees may include, but are not limited to Executive, Finance, Personnel, Facility, Curriculum, Fundraising, Enrollment, Expulsion or others as needed. Members of the committees may be removed by the Board of Directors, with or without cause.

IV.10 Vacancies: Any vacancy on the Board of Directors shall be filled by a majority vote of the remaining members of the Board of Directors at any meeting.

IV.11 Resignations: Any Director may resign at any time by giving written notice of his or her resignation to the Corporation. Such resignations shall take effect at the time specified therein. If the time when it shall become effective is not specified therein, it shall take effect immediately upon its receipt by the Chair of the Secretary, and unless otherwise specified, the acceptance of such resignation shall not be necessary to make it effective.

IV.12 Director Responsibilities: All Directors will be required to demonstrate commitment to the Corporation and its missions & purpose to Alliance Preparatory Schools. Directors will be required to attend meetings of the Boards of Directors and accept committee memberships. Directors consecutively absent from three (3) meetings of the Board of Directors, or one-half of the regular meetings within one (1) fiscal year, without reasonable cause for such absences, may be removed from the Board of Directors.

IV.13 Time Requirements: Nothing in the bylaws requires that a person serving on the Board of Directors spend his or her full time or any specific amount of time managing the Corporation's business. However, any person serving as a Director shall be available at reasonable times to assist and serve in the business of the Corporation.

IV.14 Removal From The Board of Directors: A Director member may be removed with or without cause only by a simple majority vote of the Board of Directors at any meeting. Directors will be considered for dismissal for any one the following breaches of integrity, including violation of confidentiality, undermining the directives of the Board, being indicted or convicted of a felony, failing to oversee and abide by terms and conditions stated in the bylaws, or by acts that would constitute a general breach of integrity in the views of the members of the Board of Directors.

ARTICLE V MEETINGS

V.1 General Meetings: The Board of Directors shall meet at least six times per year, at such times and locations as deemed appropriate and suitable. Reasonable notice of all Board meetings shall be provided to each Director by postal mail, electronic mail, telephone or other means of communication, by action of the Chair, Vice Chair, or Secretary of the Board of Directors. The annual meeting will be held in June of each calendar year.

V.2 Special Meetings: The Board of Directors may hold special meetings called by the Chair or in a circumstance when a majority of the Board of Directors shall request a meeting. In the event that a special meeting is called, each Director shall be given 48 hours' notice of the special meeting. Such notice shall specify the business to be transacted at, or the purpose of, the meeting that is called. No other business but that specified in calling the special meeting may be transacted without majority consent of all Directors present at the meeting. Any special meetings of the Board of Directors of the Corporation shall be announced and held in compliance with open meetings law.

V.3 Quorum: A quorum consisting of 50%+1 (fifty percent plus one) or more of all Directors shall be required for all Board of Director meetings

V.4 Attendance by Telephone or Video Messaging: Any one or more Directors may attend Board of Directors meetings via the use of telephone or video messaging, granted that use of such communication devices allows all persons participating in the meeting to hear each other simultaneously.

V.5 Voting: All matters before the Board of Directors shall be approved by a majority vote.

V.6 Specific Matters - Conflicts of Interest: Matters that come before the Board of Directors which places a Director in conflict of interest between the interests of the Corporation, The Alliance Preparatory Schools and the interest of the Director, his/her family or business, the Director with the conflict shall be prohibited from participating in the discussion and recuse his/herself from voting on the particular matter. The Board of Directors shall comply with the voting and disclosure provisions of Director Conflict of Interest Section of the Non-Profit Corporation Law NCGS 55A-8-31

V.7 Compliance with NC Open Meetings Law: This Corporation shall comply in all respects with the North Carolina Public Schools Law, code section 114C-4 and any other related provision of North Carolina law in connection with all regular or special meetings of the Board of Directors. Except as otherwise permitted by such Open Meeting Laws, and/or North Carolina General Statutes Sections 143-318.9-143-318.19:

A. No quorum of the Board of Directors can hold a meeting in private for the purpose of deciding on or deliberating toward a decision on any matter.

B. No closed executive session shall be held until:

1. The Board shall have first convened in an open session for which notice shall have been given in accordance with law;
2. A majority of the Board at such meeting shall have voted to go into closed executive session;
3. The chairperson or person presiding over the meeting has cited the purpose of the closed executive session and has stated whether or not the Board of Directors shall reconvene after the closed executive session;
4. Closed executive sessions may be held only for purposes permitted by law.

V.8 Meeting Rules & Conduct: Meetings shall be conducted in an open, orderly, and fair manner, and shall be held in compliance with the North Carolina Open Meetings Law. The Board may elect not to proceed in full compliance with modified Roberts Rules of Order, but those procedures may be invoked at any time for use during part or all of a particular meeting upon motion supported by a majority.

ARTICLE VI OFFICERS

VI.1 Officers: The Corporation's officers shall consist of a Chairperson or Chair (Chairman, Chairwoman), Vice Chairperson or Vice Chair (Vice Chairman, Vice Chairwoman), Secretary, and a Treasurer and such other offices as deemed appropriate by the Board of Directors. Designated officers shall have such authority to perform duties as sanctioned by the Board of Directors. These officers shall be elected by majority vote of the Board of Directors, and serve at the pleasure of the Board. Any number of offices may be held by the same Director, other than the offices of Chairperson and Secretary.

VI.2 Procedures of Nomination of Officers: The Board of Directors shall appoint a Nominating committee, charged with the responsibility of presenting a recommendation of candidates for office, to the Board of Directors, at the annual meeting. The Board of Directors may accept or decline the recommendations presented by the Nominating committee. If the recommended candidates are declined, nominations of officers may be entertained by the Board of Directors Chairperson. Nominations must be seconded and the nominee must agree to accept the nomination and fulfill the duties of the office if so elected to the position. Upon the motion, second and majority vote to close nominations, and an election of officers from the list of candidates will be held. Elections for officers are held openly. The candidate receiving the majority of ballots cast in his/her favor will be immediately inaugurated into the office to which they have been elected. In the event of a tie, all ballots will be recast. In the event of another tie, the office shall be awarded to the candidate with the longest cumulative tenure membership on the Board of Directors.

VI.3 Resignation and/or Removal of Officers: Officers may resign from office at any time by written notice of resignation to the Corporation. Such a resignation shall take effect at the time specified or take effect upon its receipt by the Corporation. Officers may be removed from office with or without cause by the Board of Directors by a majority vote of the Board of Directors at any regular or special meeting held by the Board of Directors with a quorum in attendance.

VI.4 Terms of Officers: The terms of the Officers of the Corporation shall be from the time of their election to the next annual meeting or until their successors are chosen by the Board of Directors.

VI.5 Duties of the Offices: The following describes the duties of the offices of the Corporation:

VI.5.1 Duties of the Chairperson: The Chairperson shall preside over all meetings of the Board of Directors of the Corporation and shall be responsible for implementing policies established by the Board of Directors. Chairperson shall establish an agenda, in consultation with the Academy Principal, for each meeting of the Board of Directors. The Chairperson of the Board shall, when requested, counsel with and advise the officers of the Corporation and shall perform such other duties as directed or prescribed by the Board of Directors.

VI. 5.2 Duties of the Vice Chairperson: In the absence of the Chairperson, or in any event that the Chairperson has an inability to serve, or refuses to serve to the duties of office, the Vice Chairperson shall perform the duties of the Chairperson. When so acting, the Vice Chairperson shall have all the powers and authority of the Chairperson, and shall perform other duties as prescribed by the Board of Directors, or Chair.

VI. 5.3 Duties of the Secretary: The secretary shall certify and keep at the principal office of the Corporation the original, or a copy of these bylaws as amended or otherwise altered to date. The Secretary shall see that all notices to the Board of Directors are given in accordance with the provisions of these Bylaws or as required by law. The secretary shall keep a book of the minutes of all meetings of the Directors. The Secretary shall perform such other duties as may be assigned or directed, by the Chairperson or Board of Directors of the Corporation.

VI. 5.4 Duties of the Treasurer: The Treasurer shall be in charge of receiving and distributing to the Board of Directors an accounting of all receipts and disbursements regularly, an annual statement of all receipts and disbursements, and the annual financial audit. These duties may also include the signing of checks or drafts of the Corporation as designated by the Board of Directors.

VI. 5.5 Duties of Other Officers: Other officers of the Corporation shall perform such duties as the Chairperson or Board of Directors may direct or prescribe.

ARTICLE VII PRINCIPAL

VII.1 Selection: The Principal shall be appointed by the Board of Directors, and shall be provided compensation as the Board of Directors may direct. This power may be delegated by the board to an Education Service Provider. If so, the responsibilities related in section VII.2 are also transferred wholly to the Education Service Provider, who may in whole or in part transfer those responsibilities to the Principal.

VII.2 Duties: The Principal has direct interaction with the Board of Directors, as he/she acts at the direction of the Board of Directors over the execution, implementation and directives for Alliance Preparatory Schools. The Principal shall supervise and oversee the day-to-day operation of the Corporation in accordance with these bylaws. The Principal oversees the academic and leadership curriculums, as well as the administrative operations of the school. He/she shall be responsible for the direct course of study, conduct and assessment of students and student performance. The Principal is responsible for all required reporting to the State of North Carolina, and with preparing annual operational budgets for submission to the Board of Directors. Subject to the approval of the Board of Directors and in accordance with any hiring policies they have in place, the Principal may employ, evaluate, discipline, and terminate personnel, prescribe duties to employees, and set salary within the minimum and maximum limits established by the Board of Directors. The position of Alliance Preparatory Schools Principal serves as director of the school, and is the acting executive on behalf of the Board of Directors. Additionally, the Principal will serve as an ex officio non-voting member of the Board of Directors, with rights to attend and participate in all meetings, discussions and debate except any board meeting called for the purpose of evaluating him or her.

ARTICLE VIII INDEMNIFICATION

VIII.1 Indemnification: The Corporation shall indemnify its Directors, officers, employees, and agents arising out of their status as Directors, officers, employees or agents of the Corporation, or their activities in any of the foregoing capacities in accordance with and to the fullest extent allowable under the provisions of the North Carolina Nonprofit Corporation Act, as same may be amended from time to time, and the Act.

ARTICLE IX CONTRACTS & FISCAL CONTROLS

IX.1 Checks & Drafts: All checks, drafts, or other orders for the payment of money, issued in the name of the Corporation, shall be signed by such officer or officers, agent or agents of the Corporation and in such manner as shall from time to time be determined by resolution of the Board of Directors.

IX.2 Contracts: The Board of Directors may authorize any officer or officers, agent or agents, to enter into any contract or execute and deliver any instrument in the name of and on behalf of the Corporation; and such authority may be general or confined to specific instances.

IX.3 Loans: No loans shall be contracted on behalf of the Corporation and no evidence of indebtedness shall be issued in its name, unless authorized by a resolution of the Board of Directors. Such authority may be general or confined to specific instances, as directed by the Board of Directors.

IX.4 Funds: All funds of the Corporation not otherwise employed shall be deposited to the credit of the Corporation at such banks, trust companies, or other depositories as the Board of Directors may select, or as may be designated by any officer, officers, Directors or other agent, or agents of the Corporation to whom the Board may delegate such power.

IX.5 Acceptance of Gifts: The Board of Directors or any officer or officers or agent or agents of the Corporation to whom such authority may be delegated by the Board, may accept on behalf of the Corporation any contribution, gift, bequest, or devise for the purpose of the Corporation.

IX.6 Bonds: At the direction of the Board, any officer or employee of the Corporation shall be bonded. The Corporation shall pay the expense of procuring any such bonds.

IX.7 Audits: Upon a majority vote of the Board of Directors, the accounts of the Corporation shall be audited by a reputable certified public accountant, whose report shall be submitted to each member of the Board, and kept on file at the offices of the Corporation as required by law.

ARTICLE X DISTRIBUTION OF THE CORPORATION'S ASSETS UPON DISSOLUTION

X.1 Distribution of the Corporation's Assets Upon Dissolution: Upon dissolution, the Board of Directors shall, after paying or making provision for the payment of all of the liabilities of the corporation, assure that assets held by the corporation whose condition required return, transfer, or conveyance be returned, transferred, or conveyed in accordance with such requirements. After such compliance, remaining assets shall be distributed to either the county district school board of education in which the corporation resided, or to a non-profit benefit corporation whose primary purpose is education.

ARTICLE XI NON-DISCRIMINATION

XI.1 Non-Discrimination: This Corporation shall operate entirely on a nondiscriminatory basis with respect to age, sex, race, religion, national origin or disability. This policy shall apply to boards, committees, staff and services.

ARTICLE XII CONFLICT OF INTEREST

XII.1 Conflict of Interest: It is very important that all board members avoid conflicts of interest or perceived conflicts of interest. To this end, a board member should not participate in any discussions or vote on matters that would affect the transactions between the organization and another party that would benefit them or their personal/professional affiliations.

XII.2 Definitions

A. **Interested Person** - Any board member or board committee member who has a direct or indirect financial interest.

B. **Financial Interest** - A person who has directly or indirectly through business, investment or family:

1 an ownership or investment interest in any entity with which the Corporation has a transaction or arrangement, or

2 a compensation arrangement with the Corporation or with any entity or individual with which the Corporation has a transaction or arrangement, or

3 a potential ownership or investment interest in, or compensation arrangement with any entity or individual with which the Corporation is negotiating a transaction or arrangement.

XII.3 Procedures

A. **Duty to Disclose** - In connection with any actual or possible conflicts of interest, an interested person must disclose the existence of his or her financial interest and all material facts to the board and members of committees with board delegated powers considering the proposed transaction or arrangement.

B. **Determining if a Conflict of Interest Exists** - After disclosure of the financial interest and all material facts, and after any discussion with the interested person, he or she shall leave the board or committee meeting while the determination of a conflict of interest is discussed and voted upon. The remaining board or committee members shall decide if a conflict of interest exists.

C. **Procedures for Addressing the Conflict of Interest** - an interested person may make a presentation at the board or committee meeting, but after such presentation, he/she shall leave the meeting during the discussion of, and the vote on, the transaction or arrangement that results in the conflict of interest.

1 The chairperson of the board or committee shall, if appropriate, appoint a disinterested person or committee to investigate alternatives to the proposed transaction or arrangement.

2 After exercising due diligence, the board or committee shall determine whether the Corporation can obtain a more advantageous transaction or arrangement with reasonable efforts from a person or entity that would not give rise to a conflict of interest.

3 If a more advantageous transaction or arrangement is not reasonably attainable under circumstances that would not give rise to a conflict of interest, the board or committee shall determine by a majority vote of the disinterested Directors whether the transaction or arrangement is in the Corporation's best interest and for its own benefit and whether the transaction is fair and reasonable to the Corporation and shall make its decision as to whether or to enter into the transaction or arrangement in conformity with such determination.

D. Violations of the Conflicts of Interest Policy

1 If the board or committee has reasonable cause to believe that a member has failed to disclose actual or possible conflicts of interest, it shall inform the member of the basis for such belief and afford the member an opportunity to explain the alleged failure to disclose.

2 If, after hearing the response of the member and making such further investigation as may be warranted in the circumstances, the board or committee determines that the member has in fact failed to disclose an actual or possible conflict of interest, it shall take appropriate disciplinary and corrective action.

E. Annual Statement of the Board of Directors of Alliance Preparatory Schools, Inc.

The Alliance Preparatory Schools, Inc. shall require that all Board of Directors sign an annual statement that he/she:

- 1 has received a copy of the conflicts of interest policy
- 2 has read and understands the policy,
- 3 has agreed to comply with the policy, and
- 4 understand that the foundation of Alliance Preparatory Schools, Inc. is a charitable organization and that in order to maintain its federal tax exemption, it must engage primarily in activities which accomplish one or more of its tax-exempt purposes.

ARTICLE XIII AMENDMENTS

XII.1 Amendments: Except as otherwise provided herein, these bylaws may be amended or repealed and new bylaws may be adopted by the affirmative vote of the Board of Directors at any regular or special meeting of the Board of Directors of the Corporation, and with approval of the State Board of Education.

State of North Carolina
Department of the Secretary of State

**ARTICLES OF INCORPORATION
NONPROFIT CORPORATION**

Pursuant to §55A-2-02 of the General Statutes of North Carolina, the undersigned corporation does hereby submit these Articles of Incorporation for the purpose of forming a nonprofit corporation.

1. The name of the corporation is: Alliance Preparatory Schools, Inc.

2. (Check only if applicable.) The corporation is a charitable or religious corporation as defined in NCGS §55A-1-40(4).

3. The street address and county of the initial registered office of the corporation is:
 Number and Street 6135 Park South Drive
 City, State, Zip Code Charlotte, NC 28210 County Mecklenburg

4. The mailing address *if different from the street address* of the initial registered office is:

5. The name of the initial registered agent is:
United States Corporation Agents, Inc.

6. The name and address of each incorporator is as follows: _____
LegalZoom.com, Inc.
101 N. Brand Blvd., 11th Floor, Glendale, CA 91203

7. (Check either a or b below.)
 a. The corporation will have members.
 b. The corporation will not have members.

8. Attached are provisions regarding the distribution of the corporation's assets upon its dissolution.

9. Any other provisions which the corporation elects to include are attached.

10. The street address and county of the principal office of the corporation is:
 Number and Street 907 Lillieshall Road
 City, State, Zip Code Waxhaw, North Carolina 28173 County Mecklenburg

11. The mailing address *if different from the street address* of the principal office is:

12. These articles will be effective upon filing, unless a later time and/or date is specified: _____

This is the 2 day of 12, 2013.



Signature of Incorporator

Cheyenne Moseley, Assistant Secretary, LegalZoom.com, Inc., Incorporator

Type or print Incorporator's name and title, if any

NOTES:

1. Filing fee is \$60. This document must be filed with the Secretary of State.

Attachment to
Articles of Incorporation of
Alliance Preparatory Schools, Inc.

Said organization is organized exclusively for charitable, religious, educational, and scientific purposes, including, for such purposes, the making of distributions to organizations that qualify as exempt organizations under the section 501 (c) (3) of the Internal Revenue Code, or corresponding section of any future federal tax code. The business activity for said organization is as follows: The purpose of this non-profit corporation is to open and operate a public charter school in North Carolina.

No part of the net earnings of this organization shall inure to the benefit of, or be distributable to, its members, trustees, officers, or other private persons, except that the corporation shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the purposes set forth herein. No substantial part of the activities of this corporation shall be the carrying on of propaganda, or otherwise attempting to influence legislation, and this corporation shall not participate in, or intervene in (including the publishing or distribution of statements), any political campaign on behalf of or in opposition to any candidate for public office. Notwithstanding any other provision of this document, the corporation shall not carry on any other activities not permitted to be carried on (a) by a corporation exempt from federal income tax under section 501(c) (3) of the Internal Revenue Code, or the corresponding section of any future federal tax code, or (b) by a corporation, contributions to which are deductible under section 170(c) (2) of the Internal Revenue Code, or the corresponding section of any future federal tax code.

Upon the dissolution of this corporation, assets remaining shall be distributed for one or more exempt purposes within the meaning of Section 501(c) (3) of the Internal Revenue Code, or corresponding section of any future federal tax code, or shall be distributed to the federal government, or to a state or local government, for a public purpose. Any such assets not so disposed of shall be disposed of by a Court of Competent Jurisdiction of the county in which the principal office of the organization is then located, exclusively for such purposes or to such organization or organizations, as said Court shall determine, which are organized and operated exclusively for such purposes.

Attachment to
Articles of Incorporation of
Alliance Preparatory Schools, Inc.

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(Draft modeled after Voyager Academy)

The Board, individually and collectively, promptly shall refer criticisms, concerns, complaints, and suggestions to the Principal for appropriate study, recommendation, and response and shall refrain from individual interference with the administration of school policies except through Board action.

1111 -BOARD OVERSIGHT OF MAJOR BUSINESS SYSTEMS

The purpose of this policy is to guide the Mallard Creek STEM Academy Board of Directors as it fulfills its responsibility for overseeing management of the school district's major business systems, as enumerated herein. The Mallard Creek STEM Academy Board of Directors is a body corporate, not a collection of individuals. It acts as a body in accordance with state law and the state charter to govern Mallard Creek STEM Academy. By overseeing the annual external financial audit process, monitoring the Principal's compliance with the auditor's recommendations, and reviewing the integrity and performance of the district's major business systems on a regular basis, the school board will fulfill its duty to assure the public that district resources are being used efficiently and effectively.

1111.1 The Board of Directors will oversee the management of the district's major business systems, including, but not limited to:

Finance and Risk Management

Human Resource Services

Construction

Maintenance

Facilities Support

Security

Communications

Information Technology

1111.2 The Board of Directors will fulfill its oversight management responsibilities by:

Overseeing the annual external financial audit process;

Ensuring that the Principal acts on the auditor's recommendations from the previous year's audit, to address and correct these recommendations prior to the end of the fiscal year in which the audit is presented to the board and that such corrections be reported to the board;

Reviewing the performance of all major business systems listed above at least annually, using matrices proposed by the Principal and approved by the Board; and

Reviewing the integrity of all major or business systems at least once every three years (where integrity is defined as overall effectiveness, including structure, process, metrics, internal controls, etc.)

1113 -POLICY REVIEW AND EVALUATION

The Board will review this policy every four years.

1115 -COMPLAINTS AGAINST EMPLOYEES

Complaints against any employee that come to the attention of the Board or any Board member shall be reflected by the Board members to the Principal for appropriate action.

1115.1 The Principal shall develop procedures to ensure timely and appropriate communication with community members who contact Board members and Mallard Creek STEM Academy Academy leadership, consistent with this policy.

1120 -CONFLICT OF INTEREST

Each Board member has the obligation to consider any private, personal, or business interest that may significantly affect the Board member's action on a matter before the Board. When conflicts of interest occur, each Board member has the obligation to declare that conflict and abstain from participating or voting in the issue.

1120.1 Acting as an agent for those furnishing supplies to schools. No Board member may have any pecuniary interest in supplying goods to the school system or act as an agent for one who supplies goods.

1120.2 Misuse of confidential information. A Board member shall not use confidential knowledge of pending Board action to gain any pecuniary benefit from the action or aid another to do so.

1120.3 Contracting for personal benefit. A Board member shall not in an official capacity make any contract for his or her own benefit, or be in any way concerned or interested in making such a contract or in the profits thereof. A Board member shall not have an interest in any transaction involving public funds that involves any firm) corporation, partnership, person or association that has had a financial association with the Board member during the preceding two years.

1120.4 Board member financial interest in school supplies. The Board shall not buy school supplies in which any Board member has a pecuniary interest, regardless of whether the interested Board member abstains from voting in the matter.

1125 -OFFICIAL SCHOOL SPOKESPERSONS

The official spokespersons of the district shall be the Principal, or the Principal's authorized designees. Any person speaking in an official capacity shall conduct the assignment from the standpoint of the best interests of the Board, the school as a whole, and the Mallard Creek STEM Academy community, not as a representative of the speaker's own personal ideas or feelings.

1210. Election OFFICERS

During the meeting in August of each year, the Board shall elect by majority vote a chairperson to p reside at meetings and a vice chairperson to preside at meetings in the absence of the chairperson. Voting shall be by signed written ballots. An officer may serve successive terms.

1210.1 The Principal shall preside at the organizational meeting until a new chairperson is elected.

1210.2 If the chairperson or vice chairperson resigns the office, the vacancy shall be filled at the next meeting by majority vote of the Board.

1220 -VICE CHAIRPERSON

The vice chairperson shall assume all the rights and responsibilities of the chairperson in the absence of the chairperson and shall perform other duties of the chairperson when so assigned by the chairperson.

1300 -BOARD MEETINGS

Every meeting or assembly at any place or any time or the simultaneous communication by conference telephone or other electronic means of a majority of the members of the Mallard Creek STEM Academy for the purpose of conducting hearings, participating in deliberations, or voting upon or otherwise transacting the business of the Board shall constitute an official meeting and shall be conducted in compliance with the Open Meetings Law.

1300.1 A social meeting or other informal assembly or gathering together of the members of the Board shall not constitute an official meeting. A social meeting or informal gathering shall not be called or held to evade open meetings laws.

1305 -REGULAR MEETINGS

The Board of Directors shall adopt a schedule of one regular meeting per month on Thursdays, showing the date, time and place of each meeting. The Principal shall maintain a copy of the schedule available to the public and shall publicize the schedule. The schedule shall be posted on a prominent bulletin board in the office of each school.

1305.1 The Board may change the place or time of the regular meeting. The Board chairperson and vice chairperson may reschedule regular meetings when necessary and must reschedule the meeting within ten (10) days.

1305.2 Any changes in the date) time or place of the regular meeting shall be announced promptly to the public no less than 48 hours before the meeting.

1231 -BOARD COMMITTEES

The Mallard Creek STEM Academy Board of Directors shall employ committees, when needed, to consider, and discuss policy and governance issues that may need extensive deliberations prior to presentation to the entire board.

1231.1 The Principal shall perform as an ex officio member of all committees.

1231.2 The chairperson of the board shall be an ex officio member of all committees.

1231.3 Any board member attending a committee meeting may be appointed by the committee chairperson as a committee member, if such appointment is necessary to constitute a quorum.

1231.4 A committee may only make recommendations to the Board and has no authority to act on behalf of the Board except as may be authorized in policy or specifically granted by the Board.

1231.5 -EMERGENCY MEETINGS

The chairperson, a majority of the members, or the Principal may call an emergency meeting because of generally unexpected circumstances that require immediate consideration by the Board.

1315.1 The secretary shall notify each Board member of an emergency meeting directly, if possible.

1315.2 Public notice of the emergency meeting will be announced promptly to the public.

1315.3 Only business connected with the emergency may be considered at the meeting.

1325 -CLOSED SESSIONS

It is the public policy of the State of North Carolina and of this Board of Directors that the hearings, deliberations, and actions of this Board be conducted openly. Closed sessions shall be held only when required to permit the Board to act in the public interest as provided by law.

1325.1 Permitted purposes. By majority vote of its members present, the Board may hold or retire to a closed session as permitted by law for the deliberation of the following:

(1) To prevent the disclosure of information that is privileged or confidential pursuant to the law of this state or of the United States, or not considered a public record within the meaning of Chapter 132 of the North Carolina General Statutes;

(2) To prevent the premature disclosure of an honorary degree, scholarship, prize, or similar awards;

(3) To consult with an attorney employed or retained by the Board in order to preserve the attorney-client privilege between the attorney and the Board, including discussions on the handling or settlement of a claim, judicial action, or administrative procedure;

(4) To discuss matters relating to the location or expansion of industries or other businesses in the area served by the Board;

(5) To establish, or to instruct the Board's staff or negotiating agents concerning the position to be taken by or on behalf of the Board in negotiating (i) the price and other material terms of a contract or proposed contract for the acquisition of real property by purchase, option, exchange, or lease; or (ii) the amount of compensation and other material terms of an employment contract or proposed employment contract;

(6) To consider the qualifications, competence, performance, character, fitness, conditions of appointment, or conditions of initial employment of an individual employed or considered for employment with the Mallard Creek STEM Academy; or to hear or investigate a complaint, charge or grievance by or against any individual employee; and

(7) To plan, conduct, or hear reports concerning investigations of alleged criminal misconduct.

1325.2 Actions of the Board that must be reported or taken in open session. While deliberations may occur in closed session, the following Board actions must be taken or reported in open session:

(1) If the Board has approved or considered a settlement in closed session, the terms of that settlement shall be reported to the public body and entered into its minutes as soon as possible within a reasonable time after the settlement is concluded. The report should be made in open session unless there is a basis for the report to be heard only in closed session.

(2) Final action making an appointment or discharge or removal of an employee or public officer by the Board, where it has final authority for the appointment or discharge or removal of the employee or public officer, shall be taken in an open meeting .

1325.3 Reasons expressly prohibited for closed sessions. The following are expressly prohibited by law as a basis for closed sessions:

(1) To discuss general policy matters or other issues that would be open merely because an attorney employed or retained by the Board is a participant; and

(2) To consider the qualifications, competence, performance, character, fitness, appointment, or removal of a member of the Board or another body or to consider or fill a vacancy among its own membership.

1325.4 Maintaining confidentiality of closed session. It is the duty of each Board member and staff member in attendance to maintain the confidentiality of information shared in closed session. All confidential materials distributed during closed session shall be returned to the Principal or the school board attorney (as appropriate) before the end of the closed session.

1335 -MINUTES OF MEETINGS

The Secretary is responsible for maintaining full and accurate minutes of all Board meetings, including

closed sessions.

1335.1 At a minimum, the minutes of open sessions shall contain a record of all action taken, including the members making and seconding the motion and, in the case of a split vote, the members voting for or against the motion.

1335.2 When the Board meets in closed session, it shall keep a general account of the closed session so that a person not in attendance would have a reasonable understanding of what transpired. The minutes of closed sessions may be withheld from public inspection so long as disclosing the minutes would frustrate the purpose of the closed session.

1335.3 Upon transcription and adoption, the minutes of open sessions will be kept in an official minute book and shall be available for public inspection at all reasonable times.

1355 -RULES OF ORDER

To the extent not provided for in the attached procedures and to the extent that the reference does not conflict with the spirit of these rules, the Board shall refer to Robert's Rules of Order, Newly Revised, to answer procedural questions.

1355.1 Call to Order

The Board of Directors chairperson shall open the meeting with a call to order.

1355.2 Action by Motion

The Board shall proceed by motion. Anyone, not serving as the chairperson may make a motion. A motion shall require a second. A member may make only one motion at a time. A substantive motion is out of order while another substantive motion is pending. A motion shall be adopted by a majority of the votes cast, a quorum being present, unless otherwise required by these rules or the laws of North Carolina. Voting shall be by voice.

1355.3 Quorum

A majority of the membership shall constitute a quorum. If it appears that a quorum cannot be present at any meeting, the chairperson may postpone the meeting until such time as a quorum can be present. A majority vote of the quorum may pass a resolution.

1355.4

Debate The chairperson shall state the motion and then open the floor to debate it. The chairperson shall preside over the debate according to the following general principles:

- (1) The introducer (the member who makes the motion) is entitled to speak first.
- (2) A member who has not spoken on the issue shall be recognized before someone who has already spoken.
- (3) To the extent possible, the debate shall alternate between opponents and proponents of the measure.

1355.5 Procedural Motions In addition to substantive proposals, the following procedural motions shall be in order. Unless otherwise noted, each motion is debatable, may be amended, and requires a majority vote for adoption.

- (1) To adjourn the motion may be made only when action on a pending matter concludes; it may not interrupt deliberation of a pending matter.

- (2) To take a recess
- (3) Call to follow the agenda -The motion must be made at the first reasonable opportunity or it is waived.
- (4) To suspend the rules
- (5) To divide a complex motion and consider it by paragraph
- (6) To defer consideration
- (7) Call of the previous question
- (8) To postpone to a certain time or day
- (9) To amend -An amendment to a motion must be pertinent to the subject matter of the motion, but it may achieve the opposite of the motion's intent. The motion may be amended and an amendment may be amended, but no further amendments may be made.
- (10) To revive consideration -The motion is in order any time (100) days after a vote to defer consideration. A substantive motion which has been deferred expires 100 days thereafter unless a motion to revive consideration is adopted.
- (11) To reconsider -The motion must be made by a member who voted with the prevailing side. It must be made at the same meeting as the vote was taken. It cannot interrupt deliberation on a pending matter but is in order at any time before actual adjournment.
- (12) To rescind or repeal
- (13) To ratify
- (14) To prevent reconsideration for six months the motion is in order immediately following the defeat of a substantive motion and at no other time. For adoption the motion requires a vote equal to the number required for a quorum. It is valid for six months or until a new board member is appointed, whichever occurs first.

1355.6 Renewal of Motion

A motion that is defeated may be renewed at any subsequent meeting unless a motion to prevent reconsideration has been adopted.

1355.7 Withdrawal of Motion

A motion may be withdrawn by the introducer at any time before a vote.

1360 DUTY TO VOTE

Every member must vote unless excused by the remaining members. A member who wishes to be excused from voting shall so inform the chairperson) who shall take a vote of the remaining members present. No member shall be excused from voting except on matters involving his/her own personal or financial interest or official conduct. In all cases, a failure to be excused by a majority vote of the remaining members present shall be recorded as an affirmative vote.

1360.1 The reasons for excusing a member from voting shall be recorded in the minutes.

1365 PROCEDURES FOR THE CITIZEN PARTICIPATION AT ACTION MEETINGS OF THE BOARD OF DIRECTORS

Citizens may address the Board during the 30-minute period set aside for this purpose at the beginning of its regular action meeting. The Board Chairperson will grant 1-to 3-minutes to speak per person, depending on the number of citizens wishing to address the Board.

Citizens' comments from meetings of the Board will be 1) accepted as opinion, or 2) referred to an administrator for investigation to be reported back to the citizen and Board to the extent permitted by law, or 3) referred to the Board Chairperson, Vice Chairperson and Principal for agenda planning, or 4) referred to a Board Committee.

When the Board Chairperson refers an issue of public concern to an administrator for investigation, the Principal or administrator will respond in one three ways within 5 business days: 1) provide an answer to the citizen about their issue of concern, or 2) provide an estimated time frame that the administration feels will be necessary to investigate and provide an answer to the citizen, or 3) indicate that the administration will not be able to provide the answer with reasonable effort.

1365.1 The policies and laws of the State of North Carolina, as well as the policies of the Board, provide that matters concerning the job competence and performance of individual school system employees are confidential. For this reason, and to ensure that Board meetings are conducted in an orderly and fair manner, the Board will not entertain public discussion about specifically named school employees during the open session of Board meetings. The proper manner for raising concerns about a specific employee is to submit comments in writing to the Principal or to use the grievance procedures that have been established by the Board.

1400 POLICY DEVELOPMENT

Policies may be proposed for adoption, revision, or deletion at any Board meeting by any member of the Board or by the Principal.

1400.1 Policies introduced and recommended to the Board at a meeting shall not be adopted until a subsequent meeting. Time shall be given to permit further study and also to give opportunity to interested parties to react. Temporary approval may be granted by the Board in lieu of formal policy to meet emergency conditions or special events which will take place before formal action can be taken. The policies of the Board shall be subject to adoption, deletion, or revision only upon a majority vote of the Board.

MALLARD CREEK STEM ACADEMY POLICY SERIES 2000 SCHOOL AND COMMUNITY
2000 -SCHOOL/COMMUNITYIBUSINESS PARTNERSHIPS

Mallard Creek STEM Academy Board of Directors is committed to providing all students opportunities to develop their individual potential. In fulfilling this goal, the Board encourages and supports the involvement of community groups, businesses, and individuals who can provide programs) materials, consultation, and volunteers in an effort to enhance and enrich student achievement and prepare all students for future careers.

2000.1 In implementing partnerships between schools and the community, the Principal or designee shall consider how partnerships should be organized, the responsibilities of all parties in the partnership, training of school staff and volunteers, and an evaluation process.

2000.2 The Board of Directors values involvement of parents/guardians, businesses, community groups, and individuals in school activities and programs. All school employees are expected to demonstrate a commitment to working with the community. School administrators shall communicate to the public the goals of each school and its needs for public involvement.

2010 -PARENT/GUARDIAN AND BOOSTER ORGANIZATIONS

The Board welcomes the participation of parent/guardian organizations or booster clubs in the school. Administrators should educate such organizations on the goals of the charter and seek their assistance in improving student success within the education plan.

2010.1 Parent/guardian organizations or booster clubs that are involved with school activities or students should establish a document that sets forth the purposes of the organization and the general rules and procedures by which it will operate.

2010.2 Parent/guardian organizations, such as the PTA, and booster clubs shall secure the advice and approval of the principal in planning any function in which students will participate while under the jurisdiction of the Mallard Creek STEM Academy.

2010.3 A parent/guardian organization or booster club shall secure advance approval of the principal before planning a fund-raising activity intended to benefit a school program.

2010.4 Principals should assist parent/guardian organizations and/or booster clubs in planning activities, not limited to fund raising, that serve school needs and involve significant numbers of interested parents/guardians in meaningful service to schools and their students.

2010.5 Parent/guardian organizations and booster clubs are responsible for maintaining adequate financial records and ensuring that such records are accessible to parents/guardians and school officials on request

2010.6 Any property that a parent/guardian organization or booster club donates for a school or a school activity shall be the property of the Mallard Creek STEM Academy, and the organization should receive prior acceptance of the principal before purchasing such items.

2014 –PARENT/FAMILY INVOLVEMENT

2014.1 The Mallard Creek STEM Academy Board of Directors recognizes that parents/ guardians, families, caregivers, schools, and the community share the responsibility for the education of our children. Creating positive home, school, and community partnerships is essential to carrying out this shared responsibility successfully. To promote high student performance, school administrators, teachers and parents/guardians must work as knowledgeable partners.

2014.2 Mallard Creek STEM Academy Board of Directors believes that schools must create an environment that is conducive to learning and supports strong family partnerships. Collaboration between all school personnel and parents/guardians is essential to support student learning. School personnel will encourage and involve parents/guardians of children at all ages and grade levels by providing a variety of opportunities for involvement, while recognizing and respecting the diverse needs of families in their community.

2020 -SCHOOL VOLUNTEERS

The Board welcomes persons who wish to volunteer their time in schools. Screening, training and supervision of volunteers is the responsibility of the school principal, following rules and procedures established by the Principal.

2020.1 Volunteers are bound by the standards of conduct applicable to school employees. The principal may terminate the services of a volunteer if the principal deems appropriate.

2025 -SCHOOL VISITORS

The Board encourages parents/guardians and others interested in public education to visit schools. To ensure that school campuses are safe and orderly, the Principal or school principals may establish rules governing school visitors, consistent with this policy.

2025.1 All visitors must check in at the school office.

2025.2 Principals may delay visits during student testing or at other times when visits may disrupt school activities.

2025.3 Parents/guardians wishing to discuss individual student progress should request a meeting with the teacher in advance. Such meetings should take place outside of regular classroom hours.

2025.4 Any person who disrupts school operations, is disorderly, damages school property, threatens students or staff, or otherwise poses a risk to safe and orderly school operations may be asked to leave school property. A school principal may prohibit such persons from attending school events or coming on school property. Unless necessary to ensure school safety, such prohibitions may last for no longer than the remainder of the school year. Unless inconsistent with safe and orderly school operations, a principal shall make reasonable allowances so that a person prohibited from coming onto school property may participate in the education of children for whom the person is legally responsible.

2030 -GIFTS AND BEQUESTS The Principal may accept on behalf of the Board contributions from individuals or organizations for the improvement of the programs offered by the school system under the direction of the Board of Directors.

As a condition for acceptance of any gift, the Board prohibits the distribution of any materials that are not based on the curriculum defined by the Common Core State Standards (CCSS), the North Carolina Essential Standards as developed by the North Carolina State Board of Education or the Mallard Creek STEM Academy Academy charter and education plan.

2035 -USE OF SCHOOL FACILITIES

The Mallard Creek STEM Academy Board of Directors believes that the primary purpose or function of public school facilities is to provide quality educational environments conducive to the learning of the students they serve.

All non-Mallard Creek STEM Academy organizations shall be required to obtain a written permit for facility use. The permit will outline rules governing the use of facilities; responsibility for supervision; obligation for care and maintenance; prohibited uses; and contractual obligations related to utility fees, rental fees, insurance certification, and related matters.

The Principal shall establish procedures for the use of school facilities by outside groups, consistent with this policy.

2036 -USE OF SCHOOL EQIDPMENT AND MATERIALS

The Mallard Creek STEM Academy Board of Directors believes that equipment and materials purchased for instructional programs shall be used exclusively for instruction and/or to promote education in the schools. Equipment and materials shall not be removed from school premises and used in nonschool related activities or for private gain. Exceptions to this policy may occur only when a request is made to use school equipment or materials for a school-related program.

Faculty members may remove equipment and materials from school premises under the condition that such properties are job-related and/or contribute to improving instruction. Employees using school equipment win check out such equipment through the school office or media center.

Anyone using borrowed school equipment or materials is responsible for the items and shall pay the Mallard Creek STEM Academy for replacement costs or the actual cost of repairs for damage incurred during the course of its use.

2100 -MEDIA AND COMMUNITY RELATIONS

The Board of Directors endorses free communication between the school district and the public. In the interest of effective school community communication and media relations, the Board recognizes the public's right-to-know within the limits of established rules of confidentiality, and expects the Principal to provide information accurately and in a timely and appropriate way.

2105 -PUBLIC DOCUMENTS

The minutes, accounts, and other non-confidential records of the Board of Directors are public documents. They are in the custody of the Board Secretary. The Principal or designee shall make such records available to the public, upon request and with reasonable notice, during regular business hours.

2105.1 The Principal shall charge persons who request copies of public records 20 cents per page and the actual cost of producing copies of computer records or other media. The first 10-pages shall be provided without charge, except in cases of multiple or routine requests from the same source. Higher fees may be assessed when producing copies that require extensive use of information technology resources or extensive clerical or supervisory assistance.

2105.2 Confidential records are not open to the public. These include student and personnel records, minutes of closed sessions (so long as public inspection would frustrate the purpose of the closed session)) records pertaining to such matters as may be discussed in closed session, and such other records as may be required to be kept confidential by law or as may be exempt from disclosure.

2110 -DISTRIBUTION OF PUBLICATIONS BY NON-STUDENTS

Except as provided in this policy, non-students shall not be permitted to distribute publications on school grounds during the school day or at school activities if the materials are unrelated to instruction or a school-sponsored activity. Materials directly related to the subject of a school sponsored activity may be distributed, with prior approval of the principal.

2110.1 The Principal may develop rules and procedures that allow the limited distribution to students of materials that address activities or events for school-age students or which directly and substantially support the school program. These procedures shall ensure that class interruptions and administrative burdens are kept to a minimum.

2110.2 Commercial advertisements or other promotional materials shall not be distributed on campus by any person without prior approval of the principal. Commercial advertisements or other promotional materials may only be distributed if they relate to an approved school or school system promotion¹ or related activity, or are contained in school-sponsored publications or productions.

2110.3 On election days, candidates may not place posters on school property and campaign workers may not offer prospective voters printed campaign material.

2110.4 Nothing in this policy shall be construed to create an open forum that would allow nonstudents access to school property for the purpose of distributing materials.

2115 -PUBLIC COMPLAINTS AND CONCERNS The Board of Directors welcomes constructive criticism or comments about the operation of the Mallard Creek STEM Academy system. The Board, however, believes that complaints about the performance of school personnel or implementation of Board policy are best resolved when those complaints are addressed initially to the employee in question. Complaints about the quality of the education program or school facilities initially should be addressed to the school principal.

Complaints about an employee's performance should first be referred to the employee, if practicable. If the employee does not satisfactorily resolve the matter, the complaint then should be referred up the supervisory ladder (Principal, Board) until the matter is resolved.

2205 -ALCOHOLIC BEVERAGES PROHIBITED

The possession or consumption of alcoholic beverages is not permitted on property owned or occupied by the Mallard Creek STEM Academy. Any school visitor who possesses or consumes any alcoholic beverage on school property or comes on school property after having consumed excessive amounts of alcoholic beverages will be asked to leave the school property immediately, and, if he fails to do so, may be prosecuted for criminal trespass, disorderly conduct or other charges as may be appropriate.

2210 -USE OF TOBACCO PRODUCTS

The Board of Directors recognizes that the use of tobacco products is a health, safety and environmental hazard for students, employees, visitors and school facilities. The Board also acknowledges that adult employees serve as role models for students and that the Board's acceptance of any use of tobacco products implies school approval, if not endorsement, of such use. In addition, the Board recognizes that it has an obligation to promote a healthy learning and working environment, free from unwanted smoke, for the students, employees and visitors of the Mallard Creek STEM Academy.

Accordingly, the Board enacts the following: 2210.1 Students may not possess, display, or use any tobacco product at any time on school premises, including school vehicles, or while participating in school-sponsored events. This restriction applies on all school system property and at all times, even when the individual is on school grounds as a visitor or spectator.

2210.2 No employee or visitor shall be permitted under any circumstances to use tobacco products in or on the grounds of any facility owned or leased or contracted for by the Mallard Creek STEM Academy.

For the purposes of this policy, tobacco product is defined to include e-cigarettes, cigarettes, cigars, pipes, chewing tobacco, snuff, and any other items containing or reasonably resembling tobacco or tobacco products. Tobacco use includes smoking, chewing, dipping, or any other use of tobacco products.

WEAPONS ON CAMPUS The Board of Directors practices zero tolerance with respect to weapons on school property. Any person who in violation of state law brings a firearm or other weapon onto school property, possesses a weapon on school property, or encourages or enables another to bring or possess any weapon on school property will be reported to law enforcement authorities. Possession of a concealed handgun permit does not authorize the holder to carry a weapon on school property. For the purpose of this policy, school property includes any public school building, bus, public school campus, grounds, recreational area or athletic field.

2200.1 Each principal shall cause to have posted at school buildings and activity fields notices stating the prohibition against weapons on school property.

2200.2 Each principal shall take steps to notify students and parents/guardians at the start of each school year of the school system's weapons policy and the consequences for students who violate the policy.

MALLARD CREEK STEM ACADEMY POLICY SERIES 4000 STUDENT SERVICES

4000 -EQUAL EDUCATIONAL OPPORTUNITY FOR ALL STUDENTS

There shall be equal educational opportunity for all students regardless of race, sex religion, sexual orientation, creed, disability, or national origin. Equal opportunity shall be provided in extracurricular as well as curricular activities. Any student or parent/custodian who believes that a student has been denied equal treatment in violation of this policy may notify the Principal or designee, who shall investigate and, where appropriate, resolve such concerns. Students and parents/custodians may also use the Student Grievance Policy 4800 to pursue a complaint of discrimination. Retaliation for reporting or pursuing a claim of discrimination under this policy is prohibited.

4100 -STUDENT ATTENDANCE

The purpose of this policy is to encourage daily attendance in all classes. Attendance at school is essential if a student expects to do well. Regular attendance is necessary for successful completion of required class work and promotion to the next grade. Moreover, attendance and participation in class are integral parts of the teaching and learning process, and regular attendance develops patterns of behavior essential to successful personal, social and professional life. Rewards and penalties in the form of grades shall not be used as attendance incentives. Each school shall develop attendance incentives that do not involve grades to encourage attendance.

4100.1 Minimum Attendance Requirement A student is absent from school for the purposes of this section when the student is not present for at least half of the school day, whether the absence is excused or unexcused. A student is absent from a class for the purposes of this section if the student misses more than half the class period, whether the absence is excused or unexcused. Absences resulting from participation in school-sponsored activities will not count against the minimum attendance requirement. This policy does not limit a teacher or principal from imposing disciplinary sanctions for students who miss portions of the school day or a class without excuse.

A student who is absent from school shall within three days of returning to school furnish a written excuse from the student's parent/guardian, custodian, or doctor stating the dates and reason for the absences. After five consecutive or ten accumulated absences in a semester, the principal may require a written doctor's excuse for any additional absences attributed to illness. When a student has been absent from class or school ten times in a semester or twenty times in a school year, whether excused or unexcused, the principal or designee shall notify the parent, guardian or custodian of the absences in writing. The notice shall include a warning of the possible consequences of additional absences and/or a copy of this policy. Excessive unexcused absences may violate the compulsory attendance law and will be addressed pursuant to Compulsory Attendance, Policy 4101. Unexcused absences may result in disciplinary action as provided under Student Code of Conduct Policy 4301.

4100.2 Providing Support to Students with Excessive Absences The principal and school staff shall take appropriate action to help prevent excessive absences and provide counseling for students with a history of excessive absences. A student's parent/ guardian or custodian must be notified of excessive absences, and the teacher and counselor then shall work with the student and family to analyze the causes and determine steps to eliminate the problem. The Principal shall designate a school employee to assist parents or other caretakers, principals and counselors with chronic cases of absenteeism.

The designated employee shall work closely with the juvenile justice system, the city and county police departments, the Department of Social Services, Durham Housing Authority and other community agencies to establish support systems for students who refuse to attend school regularly. The designated employee shall request that immediate consequences be imposed when students under court mandate to attend school do not comply. Legal references: N.C.G.S. 115C-378, 379, 381

4101 -COMPULSORY ATTENDANCE

Every parent/guardian or other person of a child between the ages of 7 and 16 years enrolled at the Mallard Creek STEM Academy, or a child younger than seven if enrolled in school, shall cause such child to attend school continuously for a period equal to the time which the Mallard Creek STEM Academy shall be in session. No person shall encourage, entice, or counsel any such child to be unlawfully absent from school. The parent/guardian or custodian of a child shall notify the school of the reason for each known absence of the child.

4101.1 Notification of Excessive Absences The principal or a designee shall notify the parent/guardian or custodian of a child's excessive unexcused absences as follows:

- A. After the third unexcused absence, the principal or designee shall notify the parent/guardian or custodian within three school days. If unable to contact the parent/guardian or custodian, the principal shall refer the matter to a school counselor or other designee for immediate investigation.
- B. After not more than six unexcused absences, the principal shall notify the parent/guardian or custodian by mail. The notice shall state that the parent may be in violation of the North Carolina Compulsory Attendance Law and may be prosecuted pursuant to Legal Reference: G.S.11SC378, if the absences cannot be justified as excused under the standards stated in the section entitled "Excused Absences" below. A copy of the notice will be directed to the school attendance counselor, or other appropriate school personnel, who will work with the student and family in an effort to improve attendance.
- C. After a student has accumulated 10 unexcused absences in a school year, the principal or designee shall

notify the student's parent/guardian or custodian by certified mail of the student's excessive number of unexcused absences. The notification shall state that the parent may be in violation of the North Carolina Compulsory Attendance Law and may be prosecuted if the absences cannot be justified under the standards stated in the section entitled "Excused Absences" below. The principal also shall review any reports or investigation prepared pursuant to Legal Reference: G.S.115C-381 and shall, if possible, confer with the student and the student's parent/guardian or custodian to determine whether the parent/guardian or custodian received notification pursuant to the requirements of this policy and the Compulsory Attendance Law and made a good faith effort to comply with the law. If the principal determines that the parent/guardian or custodian has not made a good faith effort to comply with the law, the principal shall notify the district attorney. Where the parent/guardian or custodian has made a good faith effort, the principal may file a complaint with the juvenile intake counselor under Legal Reference: O.S.7A-561 that the child is habitually absent from school.

4101.2 Excused Absences The principal or designee may excuse student absences for the following reasons, provided that satisfactory evidence of the excuse is provided to the principal:

- A. illness or injury. When the absence results from illness or injury, which prevents the student from being physically able to attend school.
- B. Quarantine. When isolation of the student is ordered by the local health officer or by the State Board of Health.
- C. Death in the immediate family. When the absence results from the death of a member of the immediate family of the student. The immediate family of a student includes, but is not necessarily limited to, grandparents, parents and siblings.
- D. Medical or dental appointments. When the absence results from a medical or dental appointment of a student. A written excuse should be presented with a doctor's signature or stamp.
- E. Court or administrative proceedings. When the student is a party to or is under subpoena as a witness in the proceedings of a court or administrative tribunal.
- F. Religious observances. When the student or the student's parent/guardian or custodian adheres to a religion whose tenets require, or suggest the observance of a religious event. The parent/guardian or custodian must seek prior approval of the principal for such absences [and the approval should be granted unless the religious observance or the cumulative effect of religious observances is of such duration as to interfere with the education of the student.
- G. Educational opportunity. When the student obtains the principal's prior approval of a valid education opportunity, such as travel.

4101.3 Unexcused Absences. All absences for reasons other than those identified under the section entitled "Excused Absences" will be deemed unexcused. An absence will be deemed unexcused unless the student's parent/guardian or custodian provides written documentation of the reason(s) for the absence within three school days of the student's return to school. A student who is suspended for misconduct will not be considered absent without excuse for the purposes of this policy, although such absences will be considered unexcused for the purpose of makeup work and co-curricular activity eligibility; however, students suspended for ten days or less will be provided an opportunity to take any quarterly, semester or grading period examinations missed during the suspension period.

4103 -TARDINESS

Regular, timely attendance in class is a vital component of academic success. A student shall be present in each assigned class at the appointed time or be recorded as tardy for that class. For purposes of this policy, a student is 'tardy' each time the student arrives late for any class or required school event.

4103.1 Excused Tardies A tardy shall be recorded as excused only for the reasons listed in Board Policy 4101 .2, Excused Absences.

4103.2 Notification of Excessive Tardies If a student accumulates 5 or more unexcused tardies during the school year, the principal (or designee) shall contact the student) s parent or guardian and request a conference with the student and the student's parent/guardian to discuss the problem and possible solutions. The principal (or designee) may invite the guidance counselor, or other school personnel to attend the meeting.

4103.4 Disciplinary Consequences. If a student continues to accumulate unexcused tardies after non-disciplinary interventions have been attempted, the principal may give written notice to the student's parent or guardian that any additional unexcused tardies may result in disciplinary action. In administering disciplinary consequences for tardies, principals will give strong consideration to measures other than out-of-school suspensions. Any out-of-school suspension for tardiness may not exceed two days and can only be imposed following documented interventions.

4104 -MAKEUP WORK

Students are entitled to make up work from an excused absence without receiving penalties to their marks or grades. School-level staff are authorized to set reasonable deadlines for submission of make-up work. High school and middle school students are responsible for securing and arranging make-up work from their teachers. In case of elementary students, the teacher will assign make up work where appropriate in the teacher's discretion. Make up work shall be assigned at the convenience of the teacher, and may be specific material missed by the student, or may be reinforcement or enrichment assignments.

4107 -DROPOUT PREVENTION AND INTERVENTION

The Mallard Creek STEM Academy recognizes that a person's lack of a sound education) at a minimum a high school education, can lead to the inability to find suitable employment and to achieve at his/her highest potential. The Mallard Creek STEM Academy accepts its shared role with the community in addressing this problem by developing a dropout prevention plan and supporting student services and referral programs. These programs can restore to students at-risk of dropping out of school the ability to achieve at their highest potential.

MALLARD CREEK STEM ACADEMY POLICY SERIES 5000 PERSONNEL

5000 -EQUAL EMPLOYMENT OPPORTUNITIES

The Mallard Creek STEM Academy Board of Directors and its employees shall not discriminate against any employee, applicant for employment, or student because of race, color, religion, sex, national origin, age or disability.

The Principal shall report to the Board at least annually on actions taken to implement this policy and the results of those efforts.

5000.1 Federal Compliance Officer The Principal shall designate a Federal Compliance Officer to oversee the investigation of complaints that discrimination in violation of this policy or federal law have taken place in Mallard Creek STEM Academy Academy Charier Schools educational programs, activities, or employment policies. Students and employees shall be notified annually of the name and telephone number of the Federal Compliance Officer. The same notice will include information on bow to contact the Office for Civil Rights of the U.S. Department of Education.

5000.2 Complaints of Discriminatory Practices Any person who believes a violation of this policy has occurred may report to the school's Federal Compliance Officer.

5005 -EMPLOYMENT OF PERSONNEL

The Mallard Creek STEM Academy will employ the best candidate for the job.

5005.1 Hiring Criteria

The Principal will recommend and the Board will hire candidates for employment based on the following factors:

- A. Application
- B. Academic qualifications
- C. State licensure
- D. Record of student teaching experience [where applicable]
- E. Record of experience, background information, performance, including references
- F. Personal interviews, and
- G. Criminal record check.

5005.2 SELECTION OF PRINCIPALS

In the selection of additional administrators, the Principal shall use a school-based committee to interview promising applicants. The Principal shall adopt guidelines establishing size, composition and operation of the committee. The committee shall include teachers, school staff, and parents who are selected by their peers; the preferred method for selection is an election by each constituency group's peers. The committee may also include a community member and, for high school vacancies, a student. The committee shall recommend finalists to the Principal. The Principal shall make the final recommendation to the Board. If the committee does not recommend a candidate who meets the Principal's approval, the Principal may direct the committee to submit additional names. The Principal may fill a position without using an interview committee if required.

5005.3 Contingent Hires New personnel may begin work with the understanding that continued employment is contingent upon Board approval and a satisfactory criminal record check.

5005.4 Equal Employment Opportunity All hiring practices will comply with the Board's policies governing equal employment opportunity.

5005.5 Creation of New Administrative Positions The Mallard Creek STEM Academy Board of Directors must approve the creation of new administrative positions, which require the expenditure of additional funds.

5006 -ADVERTISING VACANCIES

All vacancies occurring during the school year shall be posted in each school a minimum of five workdays before filling of said vacancies, except when circumstances dictate a shorter posting time. A vacancy exists only after the Principal has completed lateral reassignments.

5010 -EMPLOYMENT OF RELATIVES

The Mallard Creek STEM Academy Board of Directors will not place any new employee or fill any vacant position with an employee who would be under the direct supervision of a member of that employee's immediate family. An employee's immediate family includes the employee's spouse, child, parent, brother, sister, mother-in-law, father-in-law, daughter-in-law, son-in-law, sister-in-law, brother-in-law, grandmother, grandfather, grandson, granddaughter, stepmother and stepfather.

5010.1 Should two employees at a particular site enter into one of the familial relationships listed above when one is in a supervisory or evaluative role over the other, one employee will be reassigned as soon as reasonably possible. Any summative evaluation duties shall be reassigned immediately.

5010.2 The Board does not discourage relatives of current employees from seeking positions with the school.

5015 -CRIMINAL RECORD CHECKS

The Mallard Creek STEM Academy Board of Directors believes that a safe and secure learning and working environment should be provided for all students and staff. The Board further believes that employees should be role models for students and should positively represent the Mallard Creek STEM Academy in the community. These beliefs reflect the fundamental principle that anyone who directly or indirectly has contact with children is in a unique position of trust in this society. Criminal dispositions against an applicant or employee may have an impact upon these goals and will be considered in hiring and dismissal decisions.

5015.1 All applicants must consent to criminal record checks as a condition of consideration for

employment. Such consent shall include consent for criminal record checks that may take place after employment.

5015.2 A criminal record check will be conducted of all newly hired employees, including substitutes. All new employees will be hired conditioned upon the review of the individual's criminal record, and the employee shall be considered a conditional employee until final approval.

5015.3 Information obtained through the implementation of this policy shall be kept confidential as provided in the North Carolina General Statutes. Procedures for implementing this policy will be developed and administered by the Principal, including procedures for compliance with the Fair Credit Reporting Act, if appropriate.

5020 -HEALTH CERTIFICATE REQUIRED

Every new employee and any employee who is separated from employment for more than one year shall file a completed health certificate with the Principal upon initial employment. An employee who misses more than 40 successive school days because of a communicable disease must, before returning to work, file a physician's certificate with the Principal certifying that the individual is free from any communicable disease.

030 -ASSIGNMENT, PROMOTION AND TRANSFER OF PERSONNEL

The Principal is authorized to assign teachers and other employees of the schools to appropriate positions and is authorized to reorganize and arrange the administrative and supervisory staff as best serves the Mallard Creek STEM Academy.

5030. 1 Administrative Transfer The Principal may, based on the best interests of the school, transfer any employee from one position to another position so long as the transfer does not result in a reduction in compensation, except as noted by this policy. The Principal shall provide the employee with a written explanation for the transfer.

5030.2 Employee-Initiated Transfer

An employee may request a transfer, following procedures established by the Principal.

5030.3 Transfer of Principals

The Principal shall consult with and advise the Board before implementing administrative transfer of any school principal(s).

5030.4 Promotion

The Principal shall not promote an employee into a Principalship or central services administrative position (e.g. specialist, coordinator, etc.) without approval by the Mallard Creek STEM Academy Board of Directors. For purposes of this policy, a promotion is a reassignment to a higher position carrying a higher salary.

5100 -GENERAL CODE OF ETHICS AND STANDARDS OF CONDUCT

School employees hold positions of public trust; they are responsible for the education of students, and also serve as examples and role models to students. School employees cannot perform their duties effectively unless they have the trust and respect of students, parents, vendors, suppliers, the public and other employees. Accordingly, they must exhibit the highest standards of honesty, integrity, fairness and professionalism in any activity. Employee conduct should be such as to protect both the person's integrity and reputation and that of the school. An unwavering commitment to honorable behavior by each and every employee is expected. It is not practical or possible to enumerate all of the situations that might fall under this policy. Clearly, employees are expected to perform their job duties in a competent and ethical manner without violating either the public trust or applicable laws, policies and regulations. Many policies addressing specific conduct are included in this policy manual. The Mallard Creek STEM Academy Board of Directors further requires all certified employees to know and abide by the Code of Professional Practice and Conduct for North Carolina Educators; however, the absence of a law, policy, or regulation covering a particular situation does not relieve an employee from the responsibility to exercise the highest ethical standards at all times. All school employees shall review, be familiar with and follow the printed policies of the Board. Copies of the policy manual shall be available in the media center and the principal's office of each school.

5105 -EMPLOYEE DRESS CODE

All faculty and employees of the Mallard Creek STEM Academy serve as role models for students with whom they work and as leaders in the community. Consistent with these roles, all faculty and employees will dress in a manner and have an appearance that is appropriate and professional in light of their job duties

and work environment.

5110 -ADVERTISEMENTS AND SALES IN THE SCHOOLS

The Mallard Creek STEM Academy Board of Directors appreciates the contribution of useful products and services by private enterprise to the schools; however, the distribution of donated items, the display of items, or the use of services is not allowed when the result of the distribution, display, or use results in more than incidental advertisement. Administrative staff shall review donated products and services to determine which are acceptable for use based on their educational value balanced against the advertisement which may occur.

The names of businesses and their representatives who have been involved in cooperative programs with the Mallard Creek STEM Academy shall not be considered a violation of this policy. Further, this policy does not limit the inclusion of advertisement in student publications. A principal may give permission for the placement of advertisements in teachers' lounges or work areas, provided that the product or service may be useful to the work of the school or in improving the conditions of employment, and provided that such distribution does not interrupt normal school operations.

5110.1 Sales

No person or group may sell products or services to students while they are under the jurisdiction of the school, except in the cases of school pictures, class rings, and other items selected by a school group for fund-raising or to promote the purposes of the group or the school.

The integrity of the instructional day must be protected. Therefore, no sales shall occur during instructional time. This provision does not apply to sale of products from school stores.

A principal may give permission for salespersons to meet with employees before and after school for the purpose of promoting and selling a product or service, provided that the product or service may be useful to the work of the school or in improving the conditions of employment; however, participation by an employee must be strictly voluntary.

5120 -UNDUE INFLUENCE

School employees shall not use their positions or assignments to unfairly or unduly influence students by:

- 1) receiving fees from educational institutions for the recruitment of students;
- 2) recruiting students to participate in private business-type activities operated by the employee;
- 3) causing students to feel it necessary or advisable to participate in activities or events which require more than nominal costs for such activities as lunches, dinners, admissions, transportation) and entertainment; or
- 4) receiving fees or other consideration for the recruitment, enlistment, or chaperoning of students for private promotions provided that school employees may, with the principal's permission, announce educational trips for which the employee may receive consideration. In no case shall an employee use significant class time for such announcements.

5125 -SEXUAL HARASSMENT

All employees and students are entitled to work and study in school-related environments that are free of sexual harassment. To this end, the Board prohibits employees and students from engaging in sexual harassment and advises employees and students that when evidence of sexual harassment is established, disciplinary action may be taken, up to and including dismissal (for employees) and suspension (for students).

4410.1/5125.1 Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when:

- A. Submission to the conduct is made, either explicitly or implicitly, a term or condition of an individual's employment, academic progress, or completion of school-related activity; or
- B. Submission to or rejection of such conduct is used as the basis for employment decisions affecting such an individual, or, in the case of a student, submission to or rejection of such conduct is used in evaluating the student's performance or affecting the student's opportunities within a course of study or other school-related activity; or
- C. Such conduct has the purpose or effect of unreasonably interfering with an employee's work performance or a student's educational performance) or creating an intimidating, hostile, or offensive environment.



Insurance Services

Global Resources — Client Focused

Steele Creek Stem Charter

Quote Proposal Date: 9/20/17

<u>Coverage</u>	<u>Limits</u>	<u>Estimated Premium</u>
General Liability	\$3M	\$2,800
Educators Legal Liability	\$2M	\$2,100
Directors & Officers	\$2M	
Employment Practices	\$2M	
Sexual Misconduct	\$2M	\$1,100
Crime Policy/Employee Theft	\$250K	\$450
Employee Benefit Liability	\$3M	\$450
Flood Insurance & Earthquake	\$1M	\$950
Property Insurance	\$4M	\$4,000
Student Accident	25K/1M	\$1,100
Hired/Non Owned Auto	\$1M	\$350
Data Compromise	\$100K	\$100
Adverse Event Coverage (active shoot)	\$300K	\$150
Workers Compensation	\$1M/1M/1M	\$6,800
Total Estimated Premium:		\$20,350

NC Charter School

	2010-2011	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Enrollment		554	665	798	798	798
State Revenue (incl EC)		2,999,873	3,602,495	4,323,568	4,323,568	4,323,568
County Revenue		1,440,400	1,726,400	2,074,800	2,074,800	2,074,800
Federal Revenue (EC)		82,885	100,216	120,259	120,259	120,259
After School/Enrichment		70,000	70,000	70,000	70,000	70,000
Fundraising & Other		25,000	32,500	32,500	32,500	32,500
total other		177,885	202,716	222,759	222,759	222,759
		4,618,158	5,531,611	6,621,127	6,621,127	6,621,127
Expense						
1. and 2. Salaries + Benefits		2,517,635	2,956,496	3,474,133	3,492,936	3,492,936
3. Books & Supplies		251,250	258,350	220,200	192,600	194,600
4. Technology		37,000	40,000	42,000	42,000	42,000
5. Non Cap Equip & Leases		210,000	235,000	185,000	265,000	265,000
6. Contracted Student Services		70,000	75,000	80,000	85,000	86,000
7. Staff Development		76,000	80,000	82,000	82,000	82,000
8. Administrative Services		175,765	204,527	237,447	240,522	241,704
9. Insurances		20,350	28,950	34,250	34,250	34,250
10. Rents and Debt Service		615,000	815,000	1,065,000	1,215,000	1,315,000
11. Facilities		75,050	85,400	85,500	86,500	88,500
12. Utilities		76,500	86,500	89,500	89,500	89,500
13. Transportation and Travel		53,500	53,500	53,500	69,500	63,500
14. Capital Purchases		20,000	20,000	20,000	41,000	41,000
15. Before and After Care		40,338	42,165	42,165	42,165	42,165
total operating expenses		1,723,803	2,024,392	2,236,561	2,485,036	2,585,219
Total Expenses		4,238,388	4,980,888	5,710,694	5,977,973	6,078,155
Net surplus (deficit)		379,770	550,723	910,433	643,154	542,971
Cumulative Net Surplus/Deficit		379,770	930,493	1,840,926	2,484,080	3,027,051

NC Charter School Worksheet						
Revenue Worksheet	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	
Rev- Federal EC Funds	\$82,885	\$100,216	\$120,259	\$120,259	\$120,259	
Rev - Charter Schools ADM - State	\$ 2,765,928	\$ 3,320,112	\$ 3,984,135	\$ 3,984,135	\$ 3,984,135	
Rev - EC Funds - State	\$ 233,945	\$ 282,383	\$ 339,433	\$ 339,433	\$ 339,433	
	\$ 2,999,873	\$ 3,602,495	\$ 4,323,568	\$ 4,323,568	\$ 4,323,568	
TOTAL STATE REVENUE	\$ 3,082,758	\$ 3,702,711	\$ 4,443,827	\$ 4,443,827	\$ 4,443,827	
Rev - Charlotte-Meck	\$1,440,400	\$1,726,400	\$2,074,800	\$2,074,800	\$2,074,800	
TOTAL LOCAL REVENUE	\$1,440,400	\$1,726,400	\$2,074,800	\$2,074,800	\$2,074,800	
# Student Assumptions	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	
Total (for State Funding)	554	665	798	798	798	
EC	55	67	80	80	80	
By County for County Funding						
Mecklenburg	554	664	798	798	798	
	554	664	798	798	798	
Per Student Funding						
State	4,992.65	\$ 4,993	\$ 4,993	\$ 4,993	\$ 4,993	
EC	4,253.55	\$ 4,254	\$ 4,254	\$ 4,254	\$ 4,254	
County Funding						
Mecklenburg	\$ 2,600	\$ 2,600	\$ 2,600	\$ 2,600	\$ 2,600	
# Students by Grade						
Kindergarten	80	80	80	80	80	
1st	84	84	84	84	84	
2nd	84	84	84	84	84	
3rd	84	84	84	84	84	
4th	88	88	90	90	90	
5th	88	88	90	90	90	
6th	46	88	96	96	96	
7th	0	69	96	96	96	
8th	0	0	94	94	94	
	554	665	798	798	798	
# Elementary	508	508	512	512	512	
# Middle	46	157	286	286	286	
EC and Other State Funds per ADM						
County	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	
Children w/ Disabilities	\$ 4,254	\$ 4,254	\$ 4,254	\$ 4,254	\$ 4,254	
Federal EC Funds Per Pupil	1507	1507	1507	1507	1507	
Other State Funds						
Fines/Forfeitures Funds	\$ -	\$ -	\$ -	\$ -	\$ -	
NCVPS Costs (Virtual School)						
Total Other State Funds	\$ -	\$ -	\$ -	\$ -	\$ -	



buildinghope

QUALITY/RESULTS/GROWTH FOR PUBLIC CHARTER SCHOOLS

August 11, 2017

RE: Steele Creek STEM Academy, Inc.

To whom it may concern:

Building Hope is a non-profit foundation based in Washington, DC that works to close the educational achievement gap by giving students access to high quality public charter schools in cities across the country. We support the expansion of academically successful schools with the capacity to grow their enrollments in order to catalyze change across their local public education systems by providing technical and financial assistance related to capital projects. Our services may also include grants to pay for professional fees associated with a project (i.e., architect, engineering), or other project-specific needs and sponsoring school fundraising events to support the academic program.

Building Hope is committed to support **Steele Creek STEM Academy, Inc.** in securing a long-range plan for the opening of the above-referenced charter school. In order to ensure that the charter school is able to secure working capital for opening, Building Hope can offer a number of different services including facility and working capital financing. Building Hope may provide such financial assistance to the charter school by:

- Lending funds to for facilities acquisitions and/or improvements at below-market rates.
- Guaranteeing, insuring, and reinsuring debt used to assist charter schools to acquire, renovate, or construct school facilities.
- Guaranteeing or insuring leases of personal or real property that are needed to begin or continue the operation of the charterschools.
- Facilitating financing by potential lenders.
- Facilitating the issuance of bonds by charter schools or other public entities for the benefit of charter schools.
- Credit Enhancement Program

In addition, if the charter school is unable to secure a start-up grant, Building Hope can secure a line of credit for the school to help with the startup costs. Building Hope provides loan guarantees to make facilities financing more affordable for public charter schools throughout the United States. Guarantees range in size from \$250,000 to \$1 million. They have a five-year term with a 1% commitment fee and a 1% annual guaranty fee.

Sincerely,

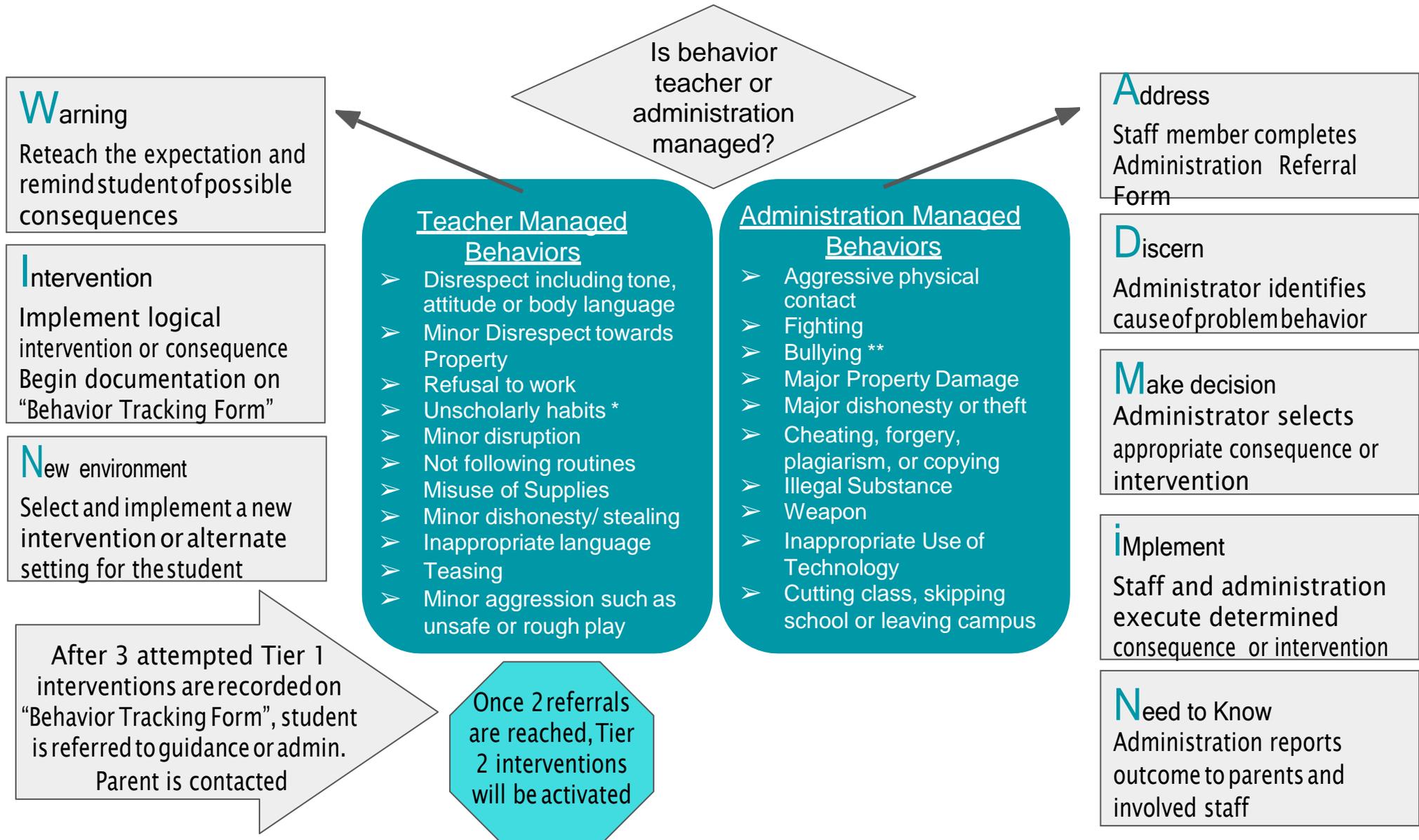
Richard Moreno
Vice-President
Southern Region

Prevent
Teach, model, and practice expectations

Reinforce
Recognize and reward followed expectations

Eliminate
Identify and eliminate the cause of problem behaviors

Managing Undesirable Behaviors



*Unscholarly habits include, but is not limited to, not bringing classroom materials, not participating in classroom activities, not completing work in a reasonable time frame, talking without permission, sleeping or having head down, drinking or eating (including candy and gum) without permission, not following all classroom procedures,

** Bullying includes, but is not limited to, a pattern of aggressive or abusive language, harassment of students or staff, racial/ethnic/sexual discrimination

Executive Summary

Building on the priority to support science, technology, engineering, and mathematics (STEM) education set by the Obama Administration that is reflected in several of the Administration's initiatives,² the U.S. Department of Education (the Department) is releasing a report outlining a vision to carry on that legacy in the coming decade. This vision was informed by the key observations, considerations, and recommendations put forth by a varying range of STEM education thought leaders and experts from the field during a series of 1.5-day workshops convened by the Department in collaboration with American Institutes for Research (AIR). This report is a resource that provides examples, not endorsements, of resources that may be helpful in reaching the STEM 2026 vision as outlined by the field experts.

The complexities of today's world require all people to be equipped with a new set of core knowledge and skills to solve difficult problems, gather and evaluate evidence, and make sense of information they receive from varied print and, increasingly, digital media. The learning and doing of STEM helps develop these skills and prepare students for a workforce where success results not just from what one knows, but what one is able to do with that knowledge.³ Thus, a strong STEM education is becoming increasingly recognized as a key driver of opportunity, and data show the need for STEM knowledge and skills will grow and continue into the future. Those graduates who have practical and relevant STEM precepts embedded into their educational experiences will be in high demand in all job sectors. It is estimated that in the next five years, major American companies will need to add nearly 1.6 million STEM-skilled employees (Business Roundtable & Change the Equation, 2014). Labor market data also show that the set of core cognitive knowledge, skills, and abilities that are associated with a STEM education are now

in demand not only in traditional STEM occupations, but in nearly all job sectors and types of positions (Carnevale, Smith, & Melton, 2011; Rothwell, 2013).

The nation has persistent inequities in access, participation, and success in STEM subjects that exist along racial, socioeconomic, gender, and geographic lines, as well as among students with disabilities. STEM education disparities threaten the nation's ability to close education and poverty gaps, meet the demands of a technology-driven economy, ensure national security, and maintain preeminence in scientific research and technological innovation.

In recognition of the widening skills and opportunity gaps in STEM, the Obama Administration has initiated several efforts to motivate action. In 2010, President Obama announced the launch of Change the Equation, a CEO-led effort to improve STEM education, as part of the Administration's larger Educate to Innovate campaign. In addition, under this Administration, the Committee on STEM Education (CoSTEM), comprised of several federal agencies—including all mission-science agencies and the Department—is facilitating a cohesive national strategy to increase the impact of federal investments in STEM teaching and learning. In 2013, CoSTEM put out a Five-Year Federal Science Technology, Engineering, and Mathematics Education Strategic Plan. In January 2016, Obama announced a bold Computer Science for All initiative; and the Elementary and Secondary Education Act (ESEA), as reauthorized under the Every Student Succeeds Act (ESSA) in December 2015, identifies all four STEM disciplines, including engineering and computer science, as fundamental components of a well-rounded education for all children. ESSA also includes provisions to promote local innovation and investments in what works to improve STEM teaching and learning.⁴ These are just a few examples of the focused attention being placed on STEM at the national level to generate change and improvement at the state and local levels.

This report is a complementary effort, resulting from a Department-led effort to gain insight into the latest research and thinking about how to improve STEM teaching and learning, including

how to ensure the engagement and success of the full diversity of the nation's learners. In 2015, the

Department, in collaboration with AIR, invited nearly 30 experts and thought leaders in STEM teaching and learning to participate in a series of discussion-based workshops to exchange ideas and develop recommendations for the future of STEM education. The project contributors were asked to draw from their own experiences, and their knowledge of the evidence behind examples of innovative and promising new approaches taking hold in communities across the nation.

This report summarizes the results of these workshop discussions and outlines what emerged from the experts' recommendations; namely, an aspirational vision (hereafter referred to as "STEM 2026") for STEM education to promote lifelong learning among all youth and in all communities. In recognition of the challenges to transforming STEM education on a large scale, the STEM 2026 vision presented in this report is meant only as starting point upon which key stakeholder groups, including policymakers, researchers, educators, and industry leaders, as well as the broader public, can build. The goal of this vision is not to establish a prescribed set of activities but to motivate actions, including the development of communities of practice (CoP), that help build a stronger evidence base for what STEM teaching and learning experiences work best in particular contexts and to serve diverse learners.

U.S. Department of Education (the Department)
John B. King, Jr., Ed.D. Secretary
Office of Innovation and Improvement
Russell Shilling, Ph.D. Executive Director of STEM
September 2016
provided.

Licensing and Availability

This report is in the public domain. Authorization to reproduce this report in whole or in part is granted. While permission to reprint this publication is not necessary, the suggested citation is: U.S. Department of Education, Office of Innovation and Improvement. (2016). STEM 2026: A Vision for Innovation in STEM Education. Washington, DC: Author.

This report is available on the Department's



DISCOVERY PLACE

SCIENCE | KIDS | NATURE

discoveryplace.org

September 20, 2017

To whom it may concern,

This letter is in support of the Steele Creek STEM Academy (SCSA) application for Charter School status. Teachers in the Charlotte region have all indicated the need for more sustained, in-depth training in science, technology, engineering, and mathematics (STEM) content and pedagogy. Recently Discovery Place Science has tracked statistically significant, externally derived shifts in attitudes and achievement in STEM among teachers and students as a result of our professional development programs for teachers and educational programs for students. At Discovery Place, we are committed to providing ongoing teacher professional development, and programs in STEM for staff and students of SCSA and throughout North Carolina. The leadership of SCSA has committed to work with Discovery Place Education Studio over the long term to gather formative data and to continuously alter and improve teaching and learning by employing Problem Based Learning (PBL) strategies. We strongly believe that our partnership efforts will significantly improve STEM content knowledge of teachers and their ability to teach STEM in an engaging manner to students. Moreover, the partnership will lead to an increase in student awareness, appreciation, understanding, achievement and application of STEM topics. Perhaps most importantly we believe that students will be more likely to matriculate to STEM based majors and careers as a result of our partnership.

As a key partner in the project, we offer STEM professional development to the teachers of, and STEM program deliverers to the students of SCSA in support of the staff toward achievement of the SMART Goals as listed in the charter application.

We are appreciative of this opportunity to partner with such a powerful consortium on this critical project. Should you require additional information, please do not hesitate to contact me.

Sincerely,

Tiffery White
Chief Learning Officer
Discovery Place Science

ClemmonsSTEM Academy Discipline Plan (Updated 6-22-17)		
Discipline Philosophy		
<i>We view discipline as a means of promoting positive character by establishing trust, respect and productive relationships that help maintain a community of strong communicators, courageous problem solvers and responsible citizens. In our discipline program, we strive for the full cooperation of all students, parents, teachers and school leadership, where everyone involved supports and embraces the actions necessary to maintain a culture that embodies the CSA Mission Statement & Core Values.</i>		
School Leadership Commitment: School leadership will model, promote, and inspire others to support and embrace this philosophy by demonstrating respect for students, parents, teachers and community members through the way they lead, relate, and communicate, while supporting teachers as they work to fulfill their commitment of establishing a culture of respect.	Teacher Commitment: Teachers will model, promote, and inspire others to support and embrace this philosophy by establishing a respectful environment where each child has a positive relationship with a caring adult, where a student is treated as an individual, and where teachers work collaboratively with all parties involved highlighting the positive in each student, and holding them accountable in a fair, productive manner when expectations are not being met.	
Student Commitment: Students will model, promote, and inspire others to support and embrace this philosophy by following school wide and classroom expectations at all times in action and in attitude, addressing and/or reporting behaviors that are unsafe or disrespectful to themselves or others, accepting responsibility for their actions, taking steps to resolve the issue, and when necessary, accepting consequences for failing to meet expectations.	Parent Commitment: Parents will model, promote, and inspire others to support and embrace this philosophy by reinforcing school wide and classroom expectations at home and by supporting staff members through communication & collaboration, helping identify, address and overcome any obstacles in the process.	
CSA Core Values		
Positive Character	Academic Excellence	Service and Leadership
Core Expectations for Students		
I am respectful.	I am responsible.	
I am safe.	I am resourceful.	
Response at the Teacher Level		
Options for Celebrating Positive Behaviors		
Praise (Both classroom and school wide)		
Visual acknowledgements (Standing ovations & bulletin boards)	Leadership Celebration	
Note, phone call, e-mail or post card home		
Privileges (Lunch buddy-students or other adults, extra computer time, eating outside, Discovery Ed video during lunch, outside activity, special job, choosing a class book or activity, sitting in teacher chair or teacher desk, -for exploratory team-exploratory free choice day, student suggested privileges...)		
Steps for Addressing Other Behaviors		

<i>The following levels are used within the course of a single school day when students are not complying with the rules:</i>	
Step 1 -- Teachers use the following intervention/consequence to help the student to appropriately modify their behavior:	Verbal Warning
Step 2 —Teacher to use one of the following when the level 1 intervention/ consequence has been ineffective or a new inappropriate behavior has been exhibited:	In class time out, note of apology, journal or email reflection, loss of privilege for a portion of the school day, or other appropriate logical consequence
Step 3 -- Teacher to use one of the following when the level 2 intervention/consequence has been ineffective or a new inappropriate behavior has been exhibited.	Time out in buddy classroom, loss of privilege that extends for the duration of the school day (K-2) or up to two school days (3-5). *Parent Contact is required*
Step 4 -- used when previous levels of intervention/consequence have been ineffective in modifying student behavior OR for infractions not addressed by classroom rules (See next page).	Office referral
Response Plan for Infractions at the School Leadership Level	
Category One Infractions	Recommended Response <i>Consequences for tardiness reset each quarter.</i>
Category Two Infractions	Recommended Response
<p>2a. Continual Teacher-Level Infractions, including, but not limited to, not bringing classroom materials, not participating in classroom activities, not completing work in a reasonable time frame, talking without permission, sleeping or having head down, drinking or eating (including candy and gum) without permission, not following all classroom procedures, etc. For lower school, this includes not following dress code.</p> <p>2b. Irresponsible Behavior leading to things such as loss of property, unintentional damage of property, incidental physical contact or unintentional offense, concern or embarrassment of a student, if to a degree necessary to involve school leadership.</p> <p>2c. Dress Code Violation (Applies only to middle and high school students).</p> <p>2d. Failure to Serve Detention (Applies only to middle and high school students).</p> <p>2e. Campus Procedures Violation, including, but not limited to, being in an unauthorized area, being somewhere without permission, taking unauthorized routes, acting in a manner that is risky or unsafe for oneself and others, transitioning with technology, playing music or videos without head phones or earbuds, etc. This does not include related infractions in higher categories.</p> <p>2f. Misuse of Technology, including, but not limited to, taking and/or taking and uploading unauthorized pictures or videos during school activities, not including any disrespectful, sexual or</p>	Level I (One-Three Infractions)
	Parent Contact
	Parent Conference with Admin.
	Parent Conference with Principal
	Level II (Four Infractions)
One Day OSS	
Level III (Five or more Infractions)	
Two Days OSS	

<p>aggressive content or messages.</p> <p>2h. Inappropriate Display of Affection, not including related infractions in higher categories (Brief hugs and hand holding are permitted in middle and high school.).</p> <p>2i. Possession or use of Non-Prescription Medicine without Permission, not including related infractions in higher categories.</p>	
Category Three Infractions	Recommended Response
<p>3a. Continual Teacher-Level Infractions, including, but not limited to, causing distractions/disruptions or being disrespectful to staff or students in minor ways.</p> <p>3b. Disrespect towards a Student, including, but not limited to, unwelcome flirting or propositions, name calling, mocking, ridiculing, insulting, taunting, slandering, retaliating or excluding in any form or for any reason, tampering with or damaging personal property, if to a degree that seems necessary to involve school leadership.</p> <p>3c. Irresponsible Behavior leading to the unintentional, minor injury of someone, <i>if</i> to a degree that seems necessary to involve school leadership.</p> <p>3d. Leaving Class without Permission, not including related infractions in higher categories, such as insubordination or disrespect to an adult.</p> <p>3e. Throwing an Object at someone in a way that is disrespectful but not aggressive, if to a degree that seems necessary to involve school leadership.</p> <p>3f. Possession or use of One’s Own Prescription Medicine without Permission, not including related infractions in higher categories</p> <p>3g. Using or displaying profanity, vulgarity or discriminatory language or gestures, not connected to or directed towards a specific person or used in a way that may seem to be connected to or directed towards a certain person. This applies to audio and video content but does not include related infractions in higher categories.</p> <p>3h. Possession of Vulgar or Pornographic Images in any medium, also including such images that may have been drawn or created. This does not include related infractions in higher categories.</p> <p>3i. Supporting or glorifying offensive, disturbing, unethical or criminal activity through comments, conversations, images, signals, drawings, media, attire, etc. This does not include related infractions in higher categories.</p>	Level I (One-Two Infractions)
	Parent Contact Parent Conference
	Level II (Three-Four Infractions)
	One Day OSS Two Days OSS
	Level III (Five or more Infractions)
	Three Days OSS
Category Four Infractions	Recommended Response
<p>4a. Disrespect towards an Adult, including, but not limited to, being slow to comply, arguing/disputing, raising the voice, expressing anger or frustration towards an adult, using sarcasm, mocking, slandering, etc.</p> <p>4b. Disrespect towards a Student, including, but not limited to, unwelcome flirting or propositions, name calling, mocking,</p>	Level I (One Infraction)
	Parent Conference
	Level II (Two-Four Infractions)
	One Day OSS Two Days OSS Three Days OSS

<p>ridiculing, insulting, taunting, slandering, retaliating or excluding in any form or for any reason, tampering with or damaging personal property. Must also include things like profanity, vulgarity, vulgar images or gestures, or discriminatory language used in a way that is connected to or directed towards a person or shown to a person in a way that is unwelcome or disrespectful. This does not include related infractions in higher categories.</p> <p>4c. Disrespect towards a Student, including posturing, challenging or provoking. This may include some level of physical contact.</p> <p>4d. Lying to an Adult or Failing to Provide Necessary Information, including intentionally withholding information, giving misleading information, impeding an investigation, etc.</p> <p>4e. Cutting Class, not including skipping school or leaving campus without permission.</p> <p>4f. Cheating & Plagiarism (See student handbook for definition.)</p> <p>4g. Disruptive Behavior that significantly interrupts regular school activity.</p> <p>4h. Congregating around a fight or disruptive activity, organizing a disruptive or disorderly gathering, identifying or acting with a group to cause disruption, etc.</p> <p>This does not include related infractions in higher categories.</p> <p>4i. Instigating and/or encouraging others to use aggressive actions.</p> <p>4j. Interfering with a Safety Drill in any way, including but not limited to acting irresponsibly, failing to follow directions, or causing a disruption.</p> <p>4k. Tampering with School Property, not causing damage</p> <p>4m. Falsifying Documents</p> <p>4n. Gambling for money or personal property.</p>	<p>Level III (Five or more Infractions)</p> <p>Four Days OSS</p>
<p>Category Five Infractions</p> <p>5a. Disrespect towards an Adult, including, but not limited to, blatant defiance and/or walking away without permission when being addressed by an adult. This may also include using profanity, vulgarity or discriminatory speech during any interaction with an adult. This does not include related infractions in higher categories.</p> <p>5b. Verbal Aggression towards a Student, including any type of intimidating or threatening speech not serious enough to be included in Category Nine.</p> <p>5c. Physical Aggression towards a Student, including a physical act of anger, retaliation or intimidation such as grabbing or shoving that is not serious enough to be considered a higher-category infraction.</p> <p>5d. Leaving Campus without Permission or Skipping School</p> <p>5e. Refusal to Allow Search of personal belongings, desk, locker, car, or related areas where a student may possess something of concern to administration and where reasonable cause has been established.</p> <p>5f. Possession of a Potentially Dangerous Device not considered a weapon.</p> <p>5g. Lighting a Fire in any manner but not such that it is considered</p>	<p>Recommended Response</p> <p>Level I (One Infraction)</p> <p>Parent Conference</p> <p>Level II (Two-Four Infractions)</p> <p>Two Days OSS Three Days OSS Four Days OSS</p> <p>Level III (Five or more Infractions)</p> <p>At least Five Days OSS and/or Disciplinary Reassignment</p>

arson.

5j. Theft of item(s) valued at \$50 or less.

5k. Vandalism causing damages that total \$50 or less.

Appendix P:

Charter School Required Signature Certification

Note: Outlined below is a list of areas that must be certified by the proposed Board of Directors. Any forms Not Applicable to the proposed charter school indicate below with N/A and provide a brief explanation for providing such response.

Serving on a public charter school board is a position of public trust and board members of a North Carolina public charter school; you are responsible for ensuring the quality of the school's entire program, competent stewardship of public funds, the school's fulfillment of its public obligations, all terms of its charter, and understanding/overseeing all third party contracts with individuals or companies.

❖ The selected Board Attorney that he/she has reviewed with the full Board of Directors, listed within the application, all the governance documents and liabilities associated with being on the Board of a Non Profit Corporation.

- Name of the Selected Board Attorney: Lisa Gordon Stella
- Date of Review: June 21
- Signature of Board Members Present (Add Signature Lines as Needed):

- Christy London
- [Signature]
- [Signature]
- [Signature]
-
-
-
-
-
-

❖ The selected Board Auditor that he/she has reviewed with the full Board of Directors, listed within the application, all the items required for the annual audit and 990 preparations.

- Name of the Selected Board Auditor: Les Merrit
- Date of Review: June 21
- Signature of Board Members Present (Add Signature Lines as Needed):

- Christy London
- [Signature]
- [Signature]
-
-
-
-
-
-

❖ If contracting with a CMO/EMO, that the selected management company has reviewed with the full Board of Directors, listed within the application, all the items required and the associated management contract and operations.

- Name of the Contact for Selected EMO/CMO: _____
- Date of Review: _____
- Signature of Board Members Present (Add Signature Lines as Needed):
 - Christy London
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____

❖ If contracting with a financial management service provider that the selected financial service provider has reviewed with the full Board of Directors, listed within the application, all the financial processes and services provided.

- Name of the Contact: Marianne LeVigne
- Name of the Selected Financial Service Provider: LBA
- Date of Review: June 21
- Signature of Board Members Present (Add Signature Lines as Needed):
 - Christy London
 - [Signature]
 - [Signature]
 - [Signature]
 - _____
 - _____
 - _____

❖ If the proposed Board of Directors, listed within the application, is contracting with a service provider to operate PowerSchool that the service provider has reviewed all of the financial processes and services provided.

- Name of the Contact: Cory Draughon
- Name of the Selected PowerSchool Service Provider: Charter Success
- Date of Review: June 21
- Signature of Board Members Present (Add Signature Lines as Needed):
 - Christy London
 - [Signature]
 - [Signature]
 - [Signature]
 - _____
 - _____
 - _____

Certification

I, Jose Garcia, as Board Chair, certify that each Board Member has reviewed and participated in the selection of the individuals and vendors attached to this document as evidenced by the full Board of Director signatures outlined above. The information I am providing to the North Carolina State Board of Education as Steel Creek STEM Charter School is true and correct in every respect.

[Signature]
Signature

9/20/11
Date