

Lab 5 - Responsibility

Grades K-1

English Language Arts

Responsibility can sometimes mean thinking of others before yourself.

Using a combination of drawing and writing, create a picture showing a time when you helped someone with something. Then think about how the other person felt before and after you helped him/her.

Write 1-2 sentences from the person's point of view. If possible, share the picture/writing with the person you helped.

Social Studies

Families have had to take responsibility for entertaining themselves while they cannot do their normal activities. Select 5 objects from your home:

- a fruit or vegetable
- an object that starts with the first letter of your name
- a ball or round object
- a t-shirt
- a basket or large bowl

Using the 5 objects, create a game that can be played with at least 2 players. Create a name and funny catchphrase for your game. For example, Pokemon use the phrase, "Gotta catch them all!" Write down detailed rules for playing the game to maintain fairness. Why is it important to have rules when you play a game? Play your game with your family!

Science

Before brushing your teeth, put the stopper down in the sink. After you finish brushing your teeth, observe the amount of water in the sink. Did you leave the water on or off while you brushed your teeth? How much water is in the sink from brushing your teeth? Predict the amount of water that would be in the sink if you had done the opposite.

Think about your use of water. If you use more or less, predict the impact of your water use on plants or animals in the area you live.

Are there behaviors you need to change to be more responsible for water use? If so, how will you do that? Discuss this with an adult and make a plan.

Mindfulness

Being responsible means that you do the things you are expected to do and accept the results of your actions. A responsibility might be a task we are expected to do, such as brushing our teeth, or finishing our homework.

What are your responsibilities at home? Have you gained any new responsibilities during this extended time at home? How do you feel about any new responsibilities you have at home or for school?

Think of different ways you can positively approach all of your new responsibilities. Share your ideas with a friend or family member and get their thoughts on different approaches.

Logic Puzzle

Find all the triangles, squares, and parallelograms you can in this lighthouse!

Follow this link: <https://bit.ly/362OQ5o>

Field Studies

Robert Baden-Powell is known for the famous quote, "Leave this world a little better than you found it." When we learn more about the environment around us, we can take steps to be more responsible for its preservation.

Watch this video to learn about the Coastal Wetlands of the Great Lakes.

Link: <https://www.greatlakesnow.org/virtual-field-trip/>

Write down 3 important facts you learned from the video and share them with an adult.

Research Explorations

Ecologists are scientists who study the relationships between living organisms, including humans, and their habitats.

Choose an animal that lives in the wild. Research the animal's needs for water. For example:

- What is its habitat, and what kind of water does that habitat require?
- How much water does the animal drink?
- What are the potential water issues the animal faces (for example, pollution, drought, predators)?

Next, think about how humans affect the water that the animal needs. Draw pictures showing at least 3 ways your family can take responsibility to help protect the water needed by the animal you researched.

Math

Host an art gallery! Draw 3 masterpieces: one showing your favorite shape; one showing the number 20; and one showing pizzas cut into different slices - whole, halves, fourths.

Price each between 5 cents and \$1. Then draw some money. Draw \$1.00 worth of quarters, dimes, nickels, and pennies. Give someone your money and ask that person to buy paintings. Be responsible! They cannot spend more than \$1.00. How much do they spend? How much do they have left?

Show the number sentence. Collect your money and your drawings. Repeat two more times. How much money did each masterpiece earn?

Grades 2-3

English Language Arts

When you are part of a group living together (usually a family), responsibility means helping out with communal tasks.

For this week, think of 3 things you can do around the house to help your family (things you don't normally do, but would be able to do). Create "coupons" that describe the activity and how you will help with it. Decorate them with color and pictures.

Give these coupons to your family members and invite them to "redeem" them over the next few weeks.

Social Studies

Businesses have had to create alternative ways to serve their consumers in safe, responsible ways during the pandemic. This includes curbside pick-ups for goods, closing for extra cleaning, and in some cases only shipping items to customers.

What changes has your favorite restaurant had to make in the past month in order to meet the needs and wants of their consumers while following new health guidelines?

What are 2-3 barriers or challenges you think they are currently facing to meeting the needs and wants of their consumers? Develop creative solutions to help them address those challenges.

Science

Go outside and find 2 different kinds of soils (like dirt, sand, or clay). Predict which soil holds the most water and which holds the least. Design a way that you can test your theory and, if possible, carry it out.

What do you think makes some soils more absorbent than others? Why?

If you wanted to keep a flowering plant healthy, which soil would you use and why? In what way, if at all, would your answer change if you were growing a tree?

Mindfulness

Responsibility is being accountable for yourself, your actions, and your things. Being responsible means that you do the things you are expected to do, and accept the consequences (results) of your actions. Draw or write about the ways that you can be responsible in the following areas:

- With homework and assignments
- With behavior choices
- Caring for yourself
- At home

Can you think of a time when you were not responsible? Think of what you could have done differently in that situation, and how might this have changed the outcome? Share what you have learned with someone you love.

Logic Puzzle

Use number logic to reveal the hidden picture by turning numbers into an image.

Follow the link: <https://bit.ly/3bDAXMd>

For more information about nonograms, visit:

https://puzzlygame.com/pages/how_to_play_nonograms/

Field Studies

Robert Baden-Powell is known for the famous quote, "Leave this world a little better than you found it." When we learn more about the environment around us, we can take steps to be more responsible for its preservation.

Watch interactive video to learn more about Bryce Canyon National Park. Link:

<https://artsandculture.withgoogle.com/en-us/national-parks-service/bryce-canyon/sunset-point-tour>

What do you think are the responsibilities of a park ranger? How does a park ranger encourage us to be more environmentally responsible?

Research Explorations

Ecologists are scientists who study the relationships between living organisms, including humans, and their habitats. Research an animal that lives in the wild and its needs for water. For example:

- What is its habitat, and what kind of water does that habitat require?
- How much water does the animal drink?
- What are the potential water issues the animal faces (for example, pollution, drought, predators)?

Next, think about how humans affect the water that the animal needs. Write a story about a family that makes at least 3 changes to their life to responsibly help protect the water needed by the animal you researched.

Math

Host an art gallery!

Draw 5 masterpieces using shapes and geometry, fractions, and pictographs. Write captions for each "math-terpiece" describing the math you used.

Assign each a price: \$3, \$5, \$8, \$10, or \$12. (Use each once.)

Invite someone to your gallery. To help this person spend responsibly, give a \$20-dollar budget. How much money does this person spend? Write a receipt that shows the total. How much money do they have left? Could they buy more? Keep the pieces.

Repeat four more times. Which piece is sold the least and the most? How much does each piece earn?

Grades 4-5

English Language Arts

What does “responsibility” mean to you? Write down 4-5 sentences about responsibility, thinking about how it changes based on context, such as community or relationship.

Next, write down at least 8 words that relate to responsibility and use those words to form a word search or a crossword puzzle with clues around the theme of responsibility.

See if your family/friends can solve the puzzle. Discuss each of the words after the puzzle is complete. How do each of you view each word and how it relates to the concept of responsibility?

Social Studies

Visit the Link to learn more about the North Carolina Coastal Habitat Protection Plan.

Link: <http://portal.ncdenr.org/web/mf/habitat/CHPP>

The plan was created to address the natural and human causes of erosion and damage to the coast.

Create a 1-minute, informative commercial for the public to explain why this plan matters. In your commercial explain why the plan was created and why every citizen is responsible to help with the plan and environment. Include facts from the North Carolina Habitat Protection Plan.

Science

Identify a downhill space outside where rainwater runoff flows, such as near a storm drain or a slope in your yard.

Describe the plants that are already there and identify any evidence you have on how effective they are at helping the water be absorbed into the ground.

Create a design that could make the area a better rain garden and point out the purpose of your additions. How would you explain the positive impact of these additions to an adult responsible for the area? Practice your explanation with an adult.

Mindfulness

Everyone is responsible for taking care of themselves. Caring for yourself can mean many different things, such as: eating good food, listening to favorite music, spending time with a loved one, or exercising. Taking time to care for yourself helps you manage your stress and refocus on positivity.

This week, document with a picture (camera or drawing) one thing each day that shows how you are taking care of yourself. At the end of the week, use your pictures to create a self-care photo story. Write a caption (description) for each picture that describes what you did and how it made you feel.

Logic Puzzle

Use number logic to reveal the hidden picture by turning numbers into an image.

Follow the link: <https://bit.ly/2zGf01K>

For more information about nonograms, visit:

https://puzzlygame.com/pages/how_to_play_nonograms/

Field Studies

United States of America astronauts feel a responsibility to explore the universe so they may better help the people on Earth.

View the video of the astronauts who manned the Space Shuttle Discovery over 30 years ago.

Link: <https://artsandculture.google.com/asset/the-space-shuttle-discovery-in-360/9QHuv5NkWRYRaw>

As you watch the video, write down what you notice, what is exciting, and what you wonder about the space shuttle. What would you change if you were an astronaut with today's technology?

Research Explorations

Ecologists are scientists who study the relationships between living organisms, including humans, and their habitats.

Choose an animal that lives in the wild and research its needs for water. For example:

- What is its habitat?
- What water does that habitat require?
- How much water does it drink?
- What are the potential water issues the animal faces (for example, pollution, drought, predators)?

Next, think about how humans affect the water that it needs. Create an informative and persuasive presentation about the animal, its needs, and at least 3 responsible changes your family could make to help protect the water it needs.

Math

According to Why Is Art Expensive?, meaning, quality, rarity, and uniqueness influence art's value. Using the 4 factors, create a value equation. Example: $(M \times Q) + (R \times U) = V$. Using math concepts, draw 5 "math-terpieces." Responsibly rate your pieces, giving each a value of 1 (lowest) to 5 (highest) for each factor. Using your values, solve your equation. (Remember order of operations.)

Which piece is most valuable? Do you agree? Should you change your equation? Ask someone to create a new equation. Recalculate. Compare results. Which ratings changed? Why? How could you use value to determine prices?

Link: <https://www.wonderopolis.org/wonder/why-is-art-expensive>

Grades 6-7

English Language Arts

Most traditional hero archetypes put the responsibility for others before themselves. One place to find examples of the hero archetype is in art. Research a piece of art that depicts a hero.

What elements of scenery, lighting, posture or expression does the artist use to hint at the heroic nature of the subject?

What do you feel is the one characteristic that truly defines a hero? Create an image that depicts a hero of your own creation. Use the artwork you researched as a mentor text for your piece. Be sure to include similar elements into your piece. Use the same elements to convey the heroism of your character. Write a paragraph that describes your hero and her/his unique qualities.

Social Studies

Visit the link below to learn more about the North Carolina Coastal Habitat Protection Plan.

Link: <http://portal.ncdenr.org/web/mf/habitat/CHPP>

The coast of North Carolina is very important, but as you read about the “Threats to the Habitat” you’ll learn about the human and natural causes of erosion to the coast.

Read through the goals of the Plan. Work with Goal 3 to explain how you can help your community take responsibility in completing the goal. Explain your ideas to your parents, friends, and/or neighbors.

Science

Beginning in November of 2019 Australia experienced devastating wildfires. The national average maximum temperature was the highest on record and rainfall was below average almost everywhere.

Predict what kinds of changes to weather patterns and the water cycle could lead to such hot and dry conditions. What can humans living in an area under the threat of wildfire do to mitigate their risk? Consider both personal and community actions.

For more information about how weather conditions impacted the Australian wildfires, read the link below: <https://wapo.st/2TnTCFb>

Mindfulness

Everyone is responsible for taking care of themselves. Caring for yourself can mean many different things, such as: eating good food, listening to favorite music, spending time with a loved one, exercising, or even sitting quietly with your thoughts. Taking time to care for yourself helps you manage your stress and refocus on positivity.

This week, take one action each day to practice self-care; make sure to have something to represent that time (ex: a relaxing picture, leaf from your walk outside, or song lyric).

When the week is done, create a scrapbook by taping each item onto paper with a caption describing what you did and how you feel about it.

Logic Puzzle

Use number logic to reveal the hidden picture by turning numbers into an image.

Follow the link: <https://bit.ly/2AnCdWA>

For more information about nonograms, visit:

https://puzzlygame.com/pages/how_to_play_nonograms/

Field Studies

The Federal Reserve system was created to help stabilize the monetary system; it has 3 key components including the Federal Open Market Committee, Board of Governors, and 12 Federal Reserve Banks across the country. This week you'll do virtual tours of three of the Federal Reserve Banks.

Visit the Federal Reserve Bank of Atlanta ([https:// www.frbatlanta.org/about/tours/virtual](https://www.frbatlanta.org/about/tours/virtual)), the Federal Reserve Bank of Chicago ([https://www. chicagofed.org/education/money-museum/virtual-money-museum](https://www.chicagofed.org/education/money-museum/virtual-money-museum)), and the Federal Reserve Bank of Philadelphia (<https://www.philadelphiafed.org/education/money-in-motion/virtual-tour>).

What similarities did you notice between the three banks? How do the Federal Reserve Banks promote financial responsibility?

Research Explorations

Ecologists are scientists who study the relationships between living organisms, including humans, and their habitats. Choose two animals that live in the wild, each on a different continent, to research.

- What are the animals' needs for water (related to habitat and drinking)?
- What are the potential water issues they face (e.g., drought, pollution, predators)?
- How do humans affect the water that they need?

Create a game in which the two animals are trying to get their water needs met, are faced with water issues, and have humans who help them by making responsible changes to the way they live.

Math

Suppose you win a \$100 gift card for an art supply store and decide to make a masterpiece! To spend responsibly you make a budget using the costs of supplies you find online.

There are two coupons - 20% off a full-price item and 10% off your total purchase. Which do you decide to use? Why? Once you make your masterpiece, how will you appropriately price it to recoup your expenditures and make a profit?

View "Why is Art so Expensive" and justify your sell price mathematically. How would having more money change your shopping and pricing plan?

Link: [https://www.cnbc.com/video/2017/11/02/ what-makes-art-so-expensive.html](https://www.cnbc.com/video/2017/11/02/what-makes-art-so-expensive.html)

Grades 8-9

English Language Arts

National Parks are closed to visitors during this pandemic. Because of that, wildlife has begun reclaiming tourist areas. Bears, coyotes, eagles and other wild animals have been spotted wandering openly in national parks. Explain the impact that humans have made on wildlife in national parks over time. What was the original intention of the parks and how has COVID-19 changed the structure or intentions of the parks?

Do tourists help promote or hinder the original intention of national parks? Do we have a responsibility to allow wildlife its own untouched areas?

Write a letter to the Superintendent of National Parks defending your opinion.

Social Studies

North Carolina played an important role in the Civil Rights Movement including the Greensboro Four and many desegregation court cases. Read the linked article and choose one of the key events they detail.

Link: <https://www.charlotteobserver.com/news/local/article223223740.html>

Write a speech as if you were the speaker at a memorial for this event. Share details of the event and impact while reminding your audience what their responsibility is in remembering the legacy of the movement.

Present your speech to a friend or family member. Record yourself if you can and replay it while observing your tone and body language while speaking.

Science

While the extreme wildfires in Australia early this year have ended, ash and charred debris are prevalent. As the rains return, scientists continue to be concerned about the effects that material will have on rivers, groundwater, and the ocean. Predict some of the impact on water quality, identifying the similarities and differences on groundwater, rivers, and oceans; provide a brief explanation of each.

How can you help build awareness and foster understanding of the impact on water quality? Who is the target audience for this information? What is the best way to present this information to your target audience?

For more information about how the Australian wildfires have threatened to pollute water, see the link below: <https://on.natgeo.com/3e4sDq8>

Mindfulness

Take time this week to be responsible for creating an activity that promotes Family Time. It can involve Game Night, organizing a call with your family in different areas of the city, state, or country, or set a time after dinner to talk with your family about current events.

Continue this responsibility each week by encouraging a member of your family to be in charge of promoting the Family Time Activity or make it your new responsibility!

Logic Puzzle

Use number logic and simple rules to reveal the hidden picture in this griddler.

Follow this link: <https://bit.ly/2xT9p7s>

For more information about nonograms, visit:

https://puzzlygame.com/pages/how_to_play_nonograms/

Field Studies

The National Geographic video linked below explores a push to live off the land in Hawaii in modern day. It shows how some Hawaiians have taken responsibility for sourcing their own food locally instead of relying on imports for food.

What ways do you think the Hawaiian government can support citizens to have more sustainable food choices? To what extent do you think the government should encourage and support local movements? How does globalization effect Hawaii and other island nations' abilities to provide for themselves?

Link: <https://www.youtube.com/watch?v=jXEepvG6Hc>

Research Explorations

Ecologists are scientists who study the relationships between living organisms, including humans, and their habitats.

Choose two animals that live in the wild, each on a different continent, to research.

- What are the animals' needs for water (related to habitat and drinking)?
- What are the potential water issues they face (e.g., drought, pollution, predators)?
- How do humans affect the water that they need?

Create a brochure persuading (a) families at home and (b) businesses to each take 5 steps to make responsible changes in their daily life/business to help these two specific animals.

Math

The global pandemic has changed supply and demand for many products. Conduct an internet search to learn more about which products are most sought during the pandemic. For example, why are video games so valuable right now?

Review the Paradox of Value video to learn more. Create a series of functions and graphs that tell the story of 5 products. What does the data show about cost and product availability as a function of time? Have people been responsible consumers during the pandemic? What data supports your hypothesis? (Explore graphingstories.com for more practice with graphical representations of data.)

Supply and Demand: <https://youtu.be/7xSaL0xvrcA>

The Paradox of Value: <https://youtu.be/e7S8jWh6AEs>

Graphing Stories: <http://www.graphingstories.com/>

Grades 10-12

English Language Arts

Most traditional hero archetypes put responsibility for others before themselves. One place to find examples of the hero archetype is art. Research a piece of classic art depicting a mythical hero.

- What elements of scenery, lighting, posture or expression does the artist use to hint at the heroic nature of the subject?
- What do you feel is the characteristic that truly defines this hero?

Create an image that depicts a hero of your own creation. Use the same elements to convey the heroism of your character. Describe your hero and her/his qualities in a short paragraph.

Social Studies

North Carolina played an important role in the Civil Rights Movement including the Greensboro Four and many desegregation court cases.

Read the linked article and watch the video at the beginning of the article. Link:

<https://www.charlotteobserver.com/news/local/article223223740.html>

What responsibility do you think the state government has to educate the citizens on the state's history in the Civil Rights Movement?

Create a detailed example of a speech, pamphlet, or public memorial to help the public remember the legacy of these events and engage in continued discussion of what our personal responsibility is in educating others about the history of the Civil Rights Movement.

Science

As the world sees improvements in some climate change measures due to recent changes in human behavior, experts are thinking about long-term planning.

Read the excerpts of a recent briefing by a few Duke University energy scholars

Link: <https://bit.ly/3e4SdeC>

Choose 2 of their points and expand upon the science underpinning their conclusions in a way that lay people can understand. How can you employ your understanding of science to help others understand these complicated issues? Use a platform of your choice to educate someone or a group regarding these issues.

Mindfulness

You are responsible for being in control of your emotional well-being.

Write down a list of things that are completely out of your control, things that are inconvenient, and/ or things that challenge you. Don't prevent your mind from letting all of those things or feelings come out.

Once you have a good list, then think about ways you can turn those negatives into positives, ways that the situation can become productive for other things, ways that you will grow during the challenge. Try to apply these positive changes daily in order to maintain a positive emotional well-being.

Logic Puzzle

Use number logic and simple rules to reveal the hidden picture in this griddler.

Follow this link: <https://bit.ly/2Z8Bbs7>

For more information about nonograms, visit:

https://puzzlygame.com/pages/how_to_play_nonograms/

Field Studies

The National Geographic video linked below explores a push to live off the land in Hawaii in modern day. It shows how some Hawaiians have taken responsibility for sourcing their own food locally instead of relying on imports for food.

- What ways do you think the Hawaiian government can support citizens to have more sustainable food choices?
- How does globalization affect Hawaii and other island nations' abilities to provide for themselves?
- What responsibility do you think everyday citizens have in mitigating the effects of globalization?

Link: <https://youtu.be/jJXEepvG6Hc>

Research Explorations

Ecologists are scientists who study the relationships between living organisms, including humans, and their habitats.

Choose two animals that live in the wild, each in different North Carolina habitats.

- What are the animals' needs for water (related to habitat and drinking)?
- What are the potential water issues they face (e.g., drought, pollution, predators)?
- How do humans affect the water that they need?

Research current NC laws that are related to water and write a persuasive letter to your representatives about 3-5 changes or additional laws that would help responsibly protect the water of these two specific animals.

Math

Analyze the lyrics song, "If I had a Million Dollars." How realistic are the items they buy? Are they spending responsibly? The last line says, "If I had a million dollars, I'd be rich." Do you agree? Create your own song explaining what you'd buy with a million dollars.

Since winning a million dollars is unlikely, research the salary for a profession you're interested in and create a budget for yourself. What are your costs? How does your professional budget compare to your million-dollar expenditures? Would you still buy the things in your song?

Link: If I had a Million Dollars song: https://www.youtube.com/watch?v=B4L3ls_6UYg

Reference Guide

Works Cited:

4-5: Why is Art Expensive? <https://www.wonderopolis.org/wonder/why-is-art-expensive>

6-7: Why is Art so Expensive: <https://www.cnbc.com/video/2017/11/02/what-makes-art-so-expensive.html> 8-9: Supply and Demand: <https://youtu.be/7xSaL0xvrcA>;

The Paradox of Value: <https://youtu.be/e7S8jWh6AEs>;

Graphing Stories: <http://www.graphingstories.com/>

10-12: If I had a Million Dollars song: https://www.youtube.com/watch?v=B4L3ls_6UYg