

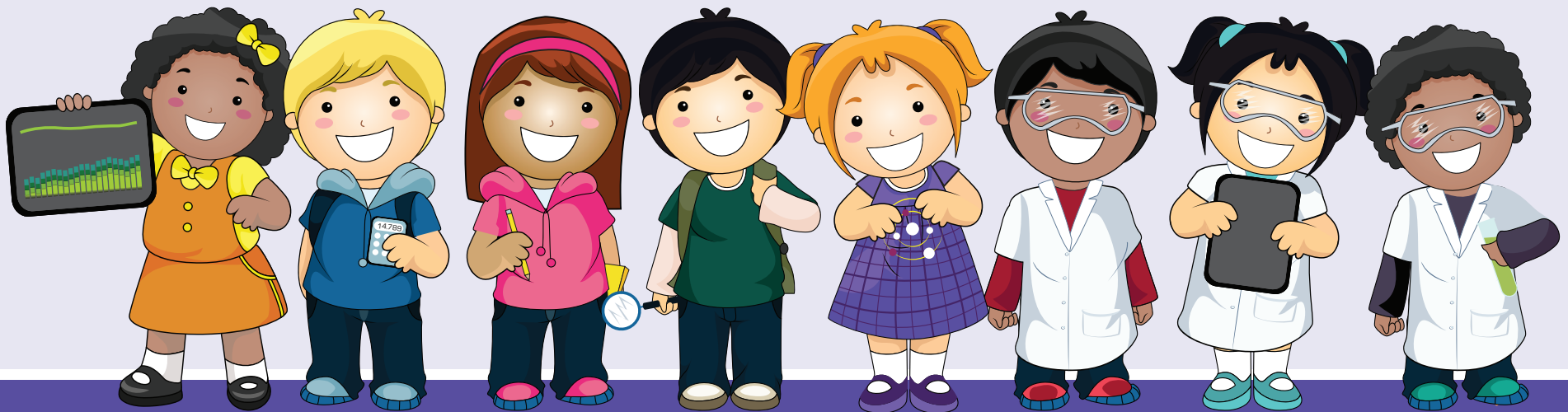
Scientific and Engineering Practices

1. Asking questions and defining problems
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data
5. Using mathematics and computational thinking
6. Constructing explanations and designing solutions
7. Engaging in argument from evidence
8. Obtaining, evaluating and communicating information

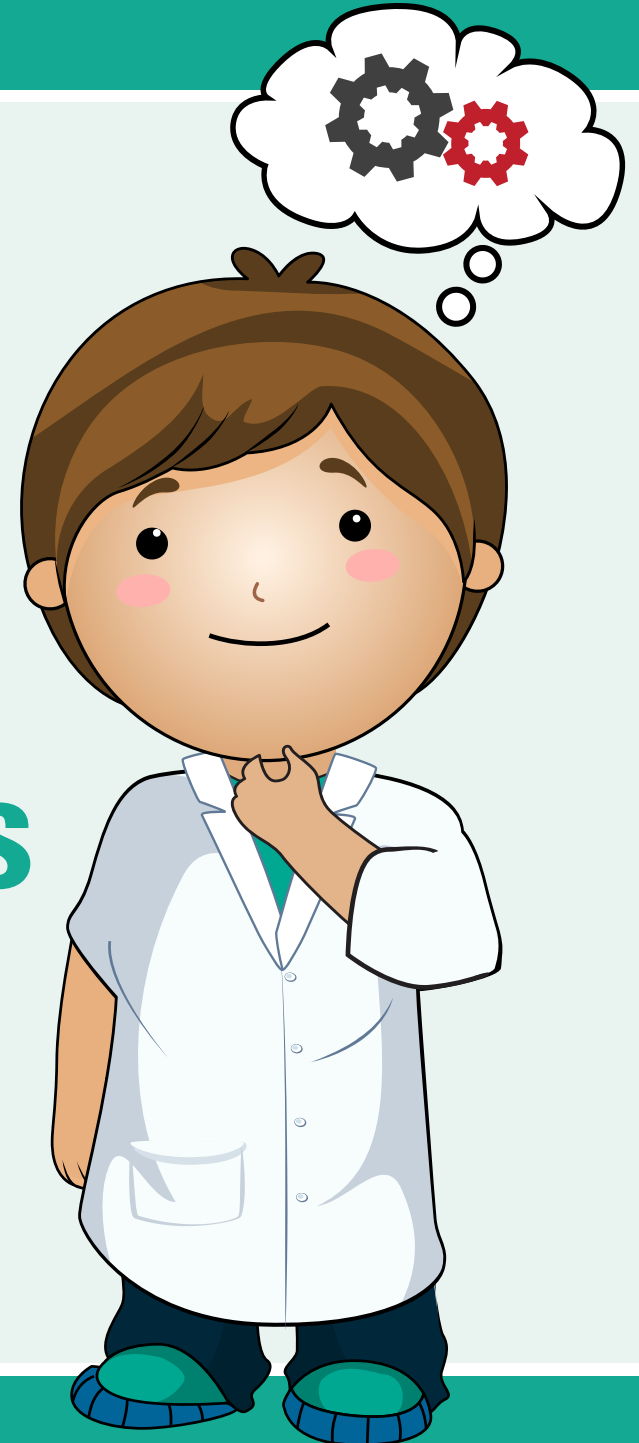


Crosscutting Concepts

1. Patterns
2. Cause and effect: Mechanism and explanation
3. Scale, proportion and quantity
4. System and system models
5. Energy and Matter: Flows, cycles, and conservation
6. Structure and function
7. Stability and change



Asking Questions & Defining Problems

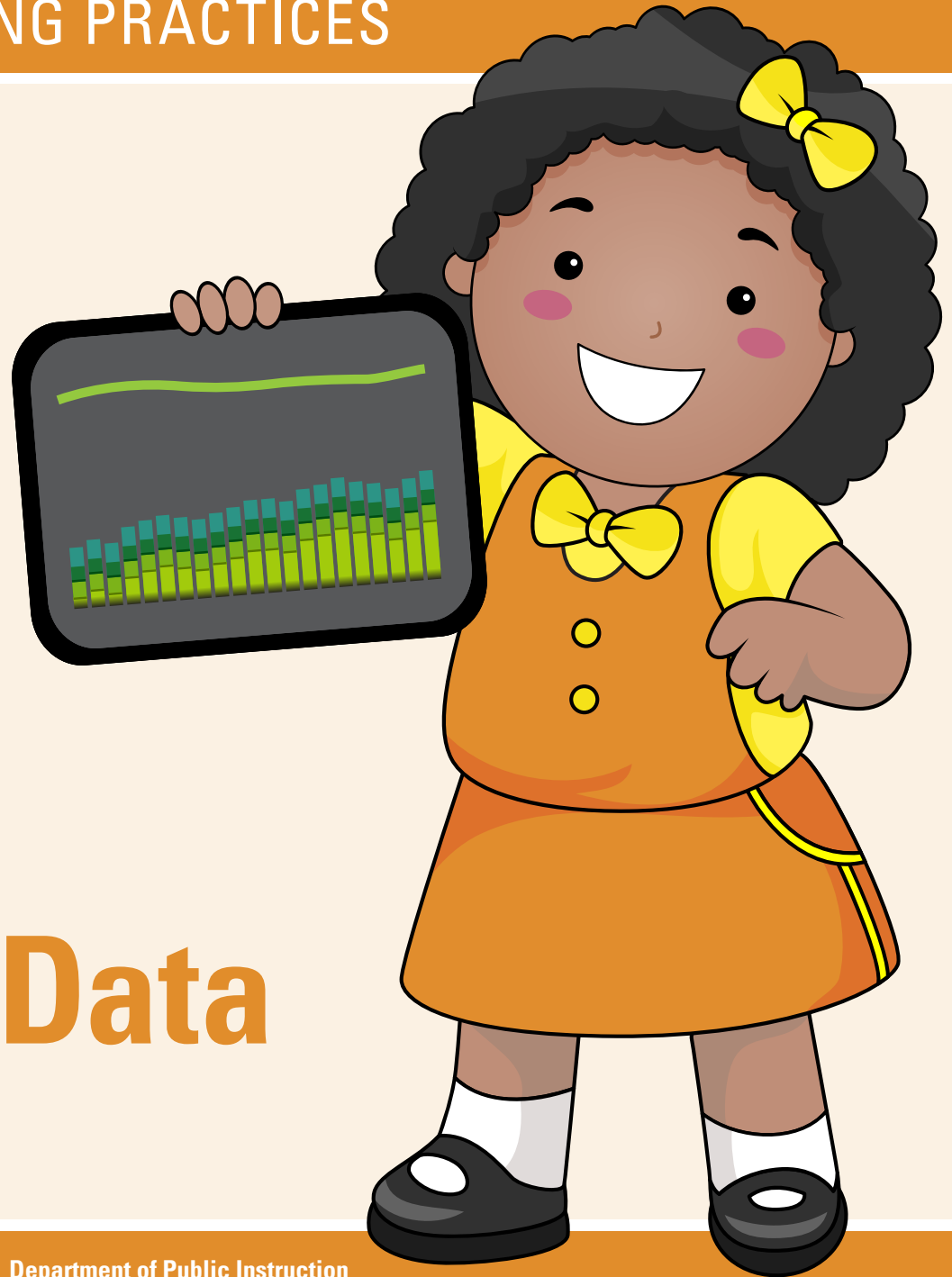


Developing & Using Models



Planning & Carrying Out Investigations



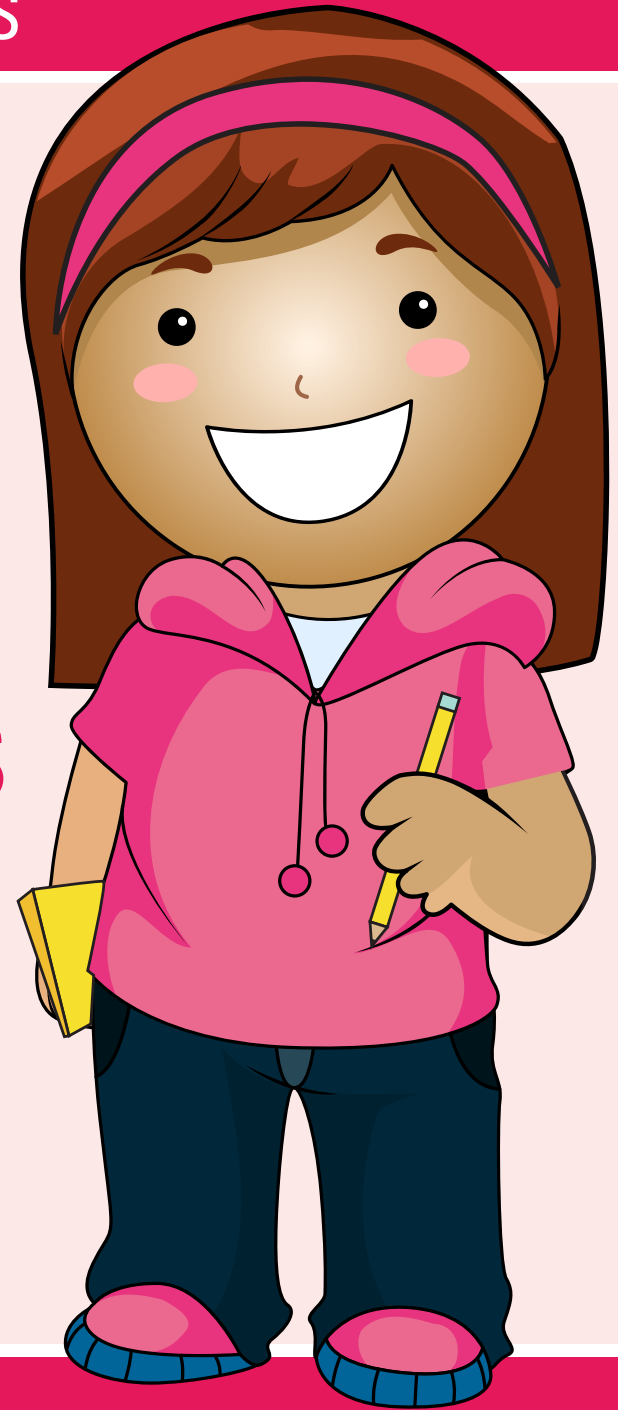


Analyzing & Interpreting Data

Using Mathematics & Computational Thinking



Constructing Explanations & Designing Solutions



Engaging in Argument from Evidence



Obtaining, Evaluating & Communicating Information

