4th Grade Science I Can Statements

In 4th Grade, I can...

- Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion. (S1)
- Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object (S1a)
- Plan and conduct a fair test to compare and contrast forces required to overcome friction when an object moves over different surfaces using a spring scale. (S1b)
- Predict how changes in either the amount of force applied to an object or the mass of the object affects the speed. (S1c)
- Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. (S1d) (S6a)
- Use evidence to construct an explanation relating the speed of an object to the energy of that object. (S2)
- Use models to explain that simple machines change the amount of effort, force, and/or direction of force. (S2a)
- Generate and compare multiple solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. (S2b) (S5b)
- Provide evidence to construct an explanation of an energy transformation. (S3)
- Apply scientific ideas to design, test, and refine a device that converts energy from one form to another. (S3a)
- Define a simple design problem reflecting a need or want that includes specified criteria for success and constraints on materials, time, or cost. (S3b, S4a)
- Develop a model of waves to describe patterns in terms of amplitude or wavelength and that waves can cause objects to move. (S4)
- Construct an argument that animals have internal and external structures that function to support survival, growth, and reproduction. (S5)
- Use a model to describe that animals receive different types of information in their brain and respond to the information in different ways. (S5a)
- Construct an argument that plants have internal and external structures that function to support survival, growth, and reproduction. (S6)
- Identify patterns in rock formations and fossils in rock layers. (S7)
- Support an explanation for changes in a landscape over time. (S8)
- Plan and conduct scientific investigations or simulations to provide evidence how natural processes shape Earth's surfaces. (S8a)
- Analyze and interpret data from maps to describe patterns of Earth's features. (S8b)