Iowa Common Core Standards for Science

4-H Youth Development Curriculum and Kits from Iowa State University Extension and Outreach, Scott County

Name	Target Grade	Number of Lessons	Iowa Core Content Anchor Standard in Science	Specific Standard(s)
Simple Machines	K-5	6	Physical Science Engineering, Technology & Applications of Science	Kindergarten Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object. **(K-PS2-1)** Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull. **(K-PS2-2)** Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. **(K-2-ETS1-1)** Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. **(K-2-ETS1-2)** Grade One Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. **(K-2-ETS1-1)** Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. **(K-2-ETS1-2)** Grade Two Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. **(K-2-ETS1-1)** Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. **(K-2-ETS1-2)** Grade Three Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object. **(3-PS2-1)** Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion. **(3-PS2-2)**

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Simple Machines	K-5	6	Physical Science Engineering, Technology & Applications of Science	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. **(3-5-ETS1-3)** Grade Four Use evidence to construct an explanation relating the speed of an object to the energy of that object. **(4-PS3-1)** Ask questions and predict outcomes about the changes in energy that occur when objects collide. **(4-PS3-3)** 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. **(3-5-ETS1-3)** Grade Five Support an argument that the gravitational force exerted by Earth on objects is directed down. **(5-PS2-1)** 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**. (3-5-ETS1-3)**