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)
Funtivities Level 2	6-9	16	Physical Science	Grade Six Develop models to describe the atomic composition of simple molecules and extended structures. **(MS-PS1-1)** Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred. **(MS-PS1-2)** Develop and use a model to describe how the total number of atoms does not change in a chemical reaction and thus mass is conserved. **(MS-PS1-5)** Grade Seven Ask questions about data to determine the factors that affect the strength of electric and magnetic forces. **(MS-PS2-3)** Construct and present arguments using evidence to support the claim that gravitational interactions are attractive and depend on the masses of interacting objects. **(MS-PS2-4)** Conduct an investigation and evaluate the experimental design to provide evidence that fields exist between objects exerting forces on each other even though the objects are not in contact. **(MS-PS2-5)** Grade Eight Construct and interpret graphical displays of data to describe the relationships of kinetic energy to the mass of an object and to the speed of an object. **(MS-PS3-1)** Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials. **(MS-PS4-2)** Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object. **(MS-PS2-2)** Grade Nine Analyze data to support the claim that Newton's second law of motion describes the mathematical relationship among the net force on a macroscopic object, its mass, and its acceleration. **(HS-PS2-1)**

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Funtivities Level 2	6-9	16	Physical Science	Plan and conduct an investigation to provide evidence that an electric current can produce a magnetic field and that a changing magnetic field can produce an electric current. **(HS-PS2-5)** Develop and use a model of two objects interacting through electric or magnetic fields to illustrate the forces between objects and the changes in energy of the objects due to the interaction. **(HS-PS3-5)**