Washington Science

Third Grade

Physical Science

How do objects move and interact with other objects?

2 Use evidence and data to investigate and measure an object's motion and how forces affect the motion of objects; use acquired understandings to show how magnetic forces can be used in engineering solutions. WA 3.PS2

1 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

2 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

3 Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other. 3-PS2-3

4 Define a simple design problem that can be solved by applying scientific ideas about magnets. [Engineering] 3-PS2-4

Life Science

How do living things grow and develop over their lifetime?

1 Use modeling to show, compare, and contrast life cycle patterns. WA 3.LS1

1 Develop models to describe that organisms have unique and diverse life cycles, but all have in common birth, growth, reproduction, and death. 3-LS1-1

What makes living things look the way they do? How does appearance affect survival and reproduction?

3 Use evidence and data to show and explain inherited and acquired traits; apply understanding of traits to explain how variations can affect survival and reproduction. WA 3.LS3

1 Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms. 3-LS3-1

2 Use evidence to support the explanation that traits can be influenced by the environment. [ESE] 3-LS3-2

3 Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing. 3-LS4-2

How are characteristics, behaviors, and needs of living things related to their environments where they live?

4 Use evidence, data, and modeling to show and explain how characteristics and behaviors of living things are related to how well they can survive in their environment; use learned understandings to analyze solutions to problems caused by environmental changes. WA 3.LS4

1 Construct an argument that some animals form groups that help members survive. 3-LS2-1

2 Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago. 3-LS4-1

3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all. [Climate] [ESE] 3-LS4-3

4 Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change. [Engineering] [ESE] 3-LS4-4

Earth and Space Sciences

What is weather and climate like in different places and how does it affect living things?

2 Use research, data, and modeling to show and explain patterns in weather and climate. WA 3.ESS2

1 Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. [Climate] [ESE] 3-ESS2-1

2 Obtain and combine information to describe climates in different regions of the world. [Climate] 3-ESS2-2

3 Use engineering thinking to compare and analyze solutions to weather related problems. WA 3.ESS3

1 Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard. [Climate] [Engineering] [ESE] 3-ESS3-1

K–2 Engineering, Technology, and Applications of Science

How do we engineer solutions to a problem?

1. Use modeling, investigation, and data to design, test, and improve solutions to problems that can be solved through engineering; include criteria, constraints, and elements of fair tests. WA 3.ETS1
    1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. 3-5-ETS1-1
    2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 3-5-ETS1-2
    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

Environmental and Sustainability Education

How do we work together to ensure a healthy environment and sustainable economy for future generations?

1. Through project-based learning, synthesize information from multiple sources about local ecological, social, and economic systems, collaborating with partners and tribes in ways that foster solutions to local environmental problems. 3.ESE.1-1
    1. Cite multiple sources and perspectives in an analysis of and presentation about environmental sustainability in the community, considering values at the individual, community, and tribal level. 3.ESE.1-1
    2. Design an investigation on school grounds to gather, analyze, and present data about how the built environment of the school improves or reduces environmental quality (e.g. impacts on/benefits to water quality, air quality, biodiversity, waste). 3.ESE.1-2
    3. Gather, analyze, and evaluate information, building the knowledge, attitudes, and understanding needed to demonstrate personal and civic responsibility for improved environmental sustainability at the local level. 3.ESE.1-3