

NGSS and CC Standards

1-PS4-2: Make observations to construct an evidence-based account that objects can be seen only when illuminated.

1-PS4-3: Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.

1-PS4-4: Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.

2-PS1-2: Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.

3-PS2-2. Make observations and/or measurements to provide evidence that a pattern can be used to predict future events.

W.2.7: Participate in shared research and writing projects.

W.2.8: Recall information from experiences or gather information from provided sources to answer a question.

W.5.7: Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.

W.5.8: Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work and provide a list of sources.

W.5.9: Draw evidence from literary or informational texts to support analysis, reflection, and research.

K-2-ETS1-1: 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-ETS1-2: 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-ETS1-3: Analyze the data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.

3-5-ETS1-1: Define a simple design problem reflecting a need or want that includes specific criteria for success and constraints on materials, time, or costs.

3-5-ETS1-2: 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-ETS1-3: 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.