

MAINE SCIENCE AND ENGINEERING STANDARDS

2-PS1 Matter and Its Interactions

2-PS1-1 Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.

Further explanation: Observations could include color, texture, hardness, and flexibility. Patterns could include the similar properties that different materials share.

Planning and Carrying out Investigations, Structure and Properties of Matter, Patterns

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.

Further explanation: Examples of properties could include strength, flexibility, hardness, texture, and absorbency. Potential Maine connections include snow tires vs. regular tires and mittens made of varying materials (e.g. wool, cotton, Gortex, etc.)

Analyzing and Interpreting Data, Structure and Properties of Matter, Cause and Effect

2-PS1-3 Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.

Further explanation: Examples of pieces could include blocks, building bricks, or other assorted small objects.

Constructing Explanations and Designing Solutions, Structure and Properties of Matter, Energy and Matter

2-PS1-4 Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.

Further explanation: Examples of reversible changes could include materials such as water and butter at different temperatures. Potential Maine examples include snow and ice having reversible properties (e.g. water freezes and thaws which allows for ice fishing and skating in colder months). Examples of irreversible changes could include cooking an egg, freezing a plant leaf, heating paper and burning wood in a campfire or woodstove.

Engaging in Argument from Evidence, Chemical Reactions, Cause and Effect