

# SCIENCE Matter Grade 2

Content Area: **Science**  
Course(s): **Generic Course**  
Time Period: **Marking Period 3**  
Length: **March April May**  
Status: **Published**

## Established Goals/Standards

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Please choose the appropriate Goals/Standards from the Standards tab above.

SCI.K-2.5.2.2.A	All objects and substances in the natural world are composed of matter. Matter has two fundamental properties: matter takes up space, and matter has inertia.
SCI.K-2.5.2.2.A.1	Sort and describe objects based on the materials of which they are made and their physical properties.
SCI.K-2.5.2.2.A.2	Identify common objects as solids, liquids, or gases.
SCI.K-2.5.2.2.A.a	Living and nonliving things are made of parts and can be described in terms of the materials of which they are made and their physical properties.
SCI.K-2.5.2.2.A.b	Matter exists in several different states; the most commonly encountered are solids, liquids, and gases. Liquids take the shape of the part of the container they occupy. Solids retain their shape regardless of the container they occupy.
SCI.K-2.5.2.2.B.a	Some properties of matter can change as a result of processes such as heating and cooling. Not all materials respond the same way to these processes.

## Essential Questions

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Please add your Essential Questions by clicking on the Lists tab above.

- Does all matter take up space?
- Does matter stay constant?
- How can we describe matter?

## Enduring Understanding

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Please add your Enduring Understandings by clicking on the Lists tab above.

- A gas does not have a definite shape or volume; it expands to fill the container it is in.
- A solid has a definite shape, but a liquid does not; a liquid takes the shape of the container it is in.
- All objects occupy space.
- Liquids have properties that can be used to describe and group the liquids
- Solid objects have properties that can be used to describe and group the objects
- Some properties of a material may change when it experiences some external change, while other properties do not.
- Water can be liquid or solid and can go back and forth from one form to the other. If water is turned into ice and then the ice is allowed to melt, the amount of water is the same as it was before

freezing.

- When a liquid is cooled, it changes to a solid; the amount of the material before and after freezing is the same.
- When gaseous water (water vapor) is cooled, the water vapor changes to liquid water.
- When heat energy is applied to water, the liquid water changes to gaseous water (water vapor); if the water is in an open container, the liquid water first evaporates into the air inside the container as liquid water again.
- When heat is applied to ice, the ice (solid water) changes to liquid water.

## **Content**

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Students will be able to:

- describe the properties of solid objects
- group solid objects on the basis of properties such as size, shape, color, and texture
- describe the properties of liquids
- group liquids on the basis of properties such as color and texture
- observe solids and liquids in different containers
- conclude that a solid has a definite shape and a liquid does not; a liquid takes the shape of the container it is in
- describe the properties of a gas
- conclude that a gas does not have a definite size or shape, and it is usually colorless and odorless
- observe what happens when you try to put two kinds of matter into the same space.
- conclude that solids, liquids, and gases occupy space
- conclude that ice is the solid form of water
- discover that heat can change a solid to a liquid
- observe two containers: one in which water is evaporating from an open container and another in which water is evaporating and condensing in a closed container
- conclude that a liquid changes to a gas (evaporates) when heat energy is applied
- observe and identify that water vapor changes to liquid water
- conclude that when a gas is cooled enough, it changes to a liquid
- observe a liquid as it changes to a solid
- discover that the amount of material is the same before and after freezing
- classify objects and substances as a solid, liquid, or a gas
- describe how the properties of a substance called goo change as it experiences an external change

## **Resources**

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Student text: Discovery works

student workbook

nonfiction leveled readers

nonfiction trade books

activity cards

big book

picture cards

plastic bags

ball

empty plastic bottle

round counters

food coloring

gelatin

ice cubes

jars

newspapers

marbles

corn oil

vegetable oil

orange juice

plastic wrap

paper towels

aluminum pans

seltzer water

masking tape

twist ties

cola

[unitedstreating.com](http://unitedstreating.com)

buttons

