

Check In: PROPERTIES



What are some properties of solids?

Overview

In the first part of *Properties*, you will be looking at properties of solids. Solids are one form of matter.

Think About This

Think of different objects that are solid. They might be different colors but they all have a color. Color is a property of solids.

Record What You See

You see four properties of solids in the activity. What are they?



Fill in this table with data about the balls in the activity:

Ball color	Size large or small	Mass in grams	Material plastic or steel
Red			
Blue			
Yellow			
Green			

Use the information from the table to figure out which ball is made of steel. Explain how you know.



What are some properties of liquids?

Overview

In the second part of *Properties*, you will look at a second form of matter: liquid. Liquids have properties that are different from solids.

Think About This

Think of different liquids. What properties do they share?

Record What You See

What are the three properties of liquids shown in the activity?

Fill in this table:

	Mass in grams
Beaker containing red liquid	
Empty beaker	

Use the information from the table to calculate the mass of the red liquid. Then explain how you found the answer.



What are some properties of gases?

Overview

In the third part of *Properties*, you will look at a third form of matter: gas. Gases have very different properties than either liquids or solids.

Think About This

Gases are often invisible and yet we know that they are there. How do we know that?

Record What You See

Use what you learn in the activity to fill in this table:

Does gas have...	Yes or No
shape?	
color?	
volume?	
mass?	

Check Out: PROPERTIES

Use your Check In sheet and what you remember from the activity to answer these questions.



What are some properties of solids?

1. Name four properties that you find in solids.

2. Solids also have other properties. For example, some solids are hard and some are soft. Some solids are flexible and bend. Other solids are stiff and do not bend. Complete the following table:

Solid	Hard or soft	Flexible or stiff
Pillow		
Rock		
Diving board		
Plastic bat		



What are some properties of liquids?

3. Answer yes or no for each property in the table.

	Property of solids	Property of liquids	Property of gases
Color			
Shape			
Volume			
Mass			



What are some properties of liquids?

4. A gas sometimes has a smell. Give three examples where a smell tells you that gas is around.

Check In: CHANGING STATES



What are the three states of matter?

Overview

Matter comes in three forms or states—solid, liquid, and gas.

Think About This

How can you tell if something is a solid, a liquid, or a gas?

Record What You See

Identify the things in the table as solid, liquid, or gas:

Object	States of matter
Wood	
Sand	
Milk	
Juice	
Air	



How does matter change state?

Overview

Matter can change from one form or state to another.

Think About This

What happens when water freezes? Where does the liquid water go? What about when water boils? Where does the liquid water go?

Record What You See

Fill in this table as you go through the activity:

From	To	Activity	Called
Liquid water	Water vapor		Boiling
Water vapor		Remove some heat	Condensing
Liquid water			Freezing
Ice cubes		Add some heat	Melting

Check Out: CHANGING STATES

Use your Check In sheet and what you remember from the activity to answer these questions.



What are the three states of matter?

1. Name the three states of matter. Give one example of each state of matter.



How does matter change state?

2. Name two ways to add heat to liquid water.

3. What happens to liquid water when you add heat?

4. Name two ways to remove heat from liquid water.

5. What happens to liquid water when you remove heat?

6. Name two ways to add heat to solid ice.

7. What happens to solid ice when you add heat?
