SCIENCE · STATES OF MATTER · GRADES 2–3

Solid, Liquid or Gas?

Cut out twelve things and sort them into solids, liquids and gases.



Name: _____ **Date:** _____

Glue each card in the right column.

Solid	Liquid	Gas

✂ Cut out the cards on the dashed lines.

a book	an ice cube	steam from a pot	air in a balloon	bubbles in soda	rain
juice	milk	the air we breathe	a rock	honey	a pencil

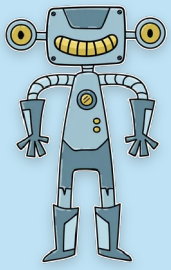
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SCIENCE · STATES OF MATTER · GRADES 3–5

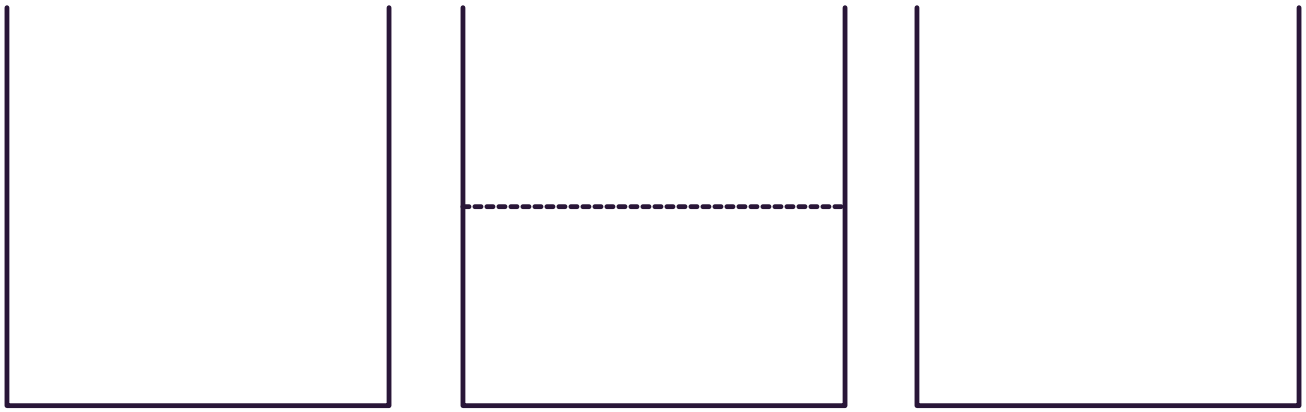
Matter Up Close

Draw the particles in a solid, a liquid and a gas, then check the facts that are true for each state.

Name: _____ **Date:** _____



Draw the particles. Solid: packed tight in rows. Liquid: close together but able to slide. Gas: spread far apart.



Solid Liquid Gas

Check each box that is true.

	Solid	Liquid	Gas
keeps its own shape			
takes the shape of its container			
spreads out to fill the whole container			
can be poured			
particles are packed tightly			
particles are far apart			

Art © Kevin Coulston

SCIENCE · STATES OF MATTER · GRADES 3–5

Changes of State

Label melting, freezing, evaporation and condensation on the water diagram, then fill in five sentences.

Name: _____ **Date:** _____



Word bank

melting | freezing | evaporation | condensation | liquid

Write the name of each change on its arrow.



ice (solid) water (liquid) water vapor (gas)

1. When ice gets warm, it starts _____.

2. A puddle drying up in the sun is _____.

3. Water drops on the outside of a cold glass come from _____.

4. Water turning into ice in the freezer is _____.

5. Heating makes matter change from solid to _____ to gas.

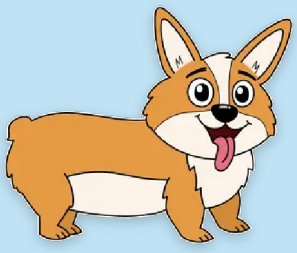
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SCIENCE · STATES OF MATTER · GRADES 2–4

Matter Scavenger Hunt

Find four solids, four liquids and four gases at school or at home.

Name: _____ **Date:** _____



Solids	Liquids	Gases
1. _____	1. _____	1. _____
2. _____	2. _____	2. _____
3. _____	3. _____	3. _____
4. _____	4. _____	4. _____

Which state of matter was hardest to find? Why?

_____

_____

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SCIENCE · STATES OF MATTER · GRADES 2–5

Ice Cube Melt Race

An experiment: predict where ice melts fastest, time three ice cubes and write a conclusion.



Name: _____ **Date:** _____

You need: 3 ice cubes the same size, 3 small plates, a timer. Put one plate in a sunny spot, one in a shady spot and one in the fridge (not the freezer).

I predict the ice cube in this spot will melt first: _____

Every few minutes, write: solid, half melted or all water.

Time	Sunny spot	Shady spot	Fridge
Start			
10 minutes			
20 minutes			
30 minutes			
45 minutes			
60 minutes			

Conclusion: which ice cube melted first? Was your prediction right? Why do you think so?

Art © Kevin Coulston

ANSWER KEY · STATES OF MATTER · GRADES 2–3

Answer Key: Solid, Liquid or Gas?

Answers for grown-ups. Some questions have more than one good answer.



Glue each card in the right column.

Solid	Liquid	Gas
a rock	milk	air in a balloon
an ice cube	juice	steam from a pot
a pencil	rain	bubbles in soda
a book	honey	the air we breathe

✂ **Cut out the cards on the dashed lines.**

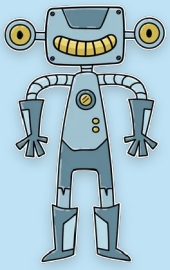
a book	an ice cube	steam from a pot	air in a balloon	bubbles in soda	rain
juice	milk	the air we breathe	a rock	honey	a pencil

Art © Kevin Coulston

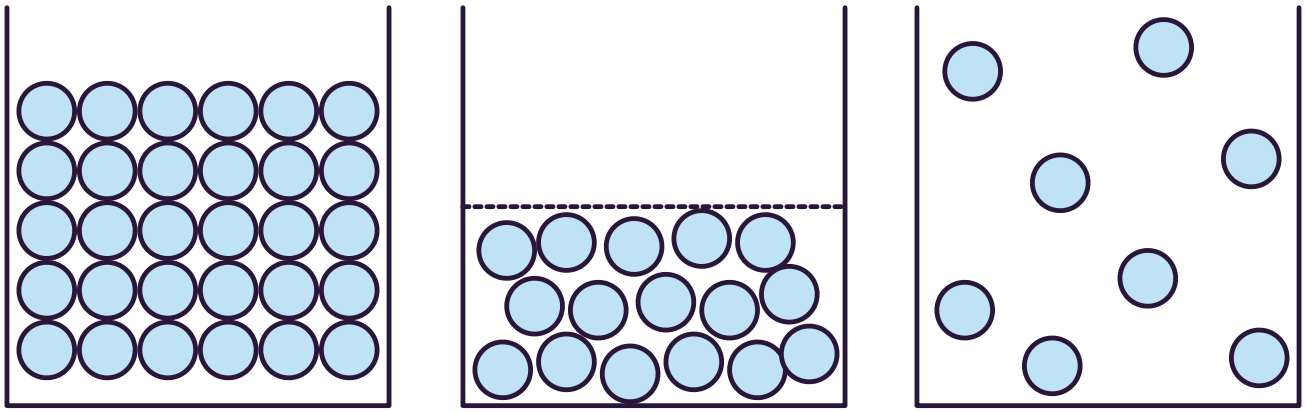
ANSWER KEY · STATES OF MATTER · GRADES 3–5

Answer Key: Matter Up Close

Answers for grown-ups. Some questions have more than one good answer.



Draw the particles. Solid: packed tight in rows. Liquid: close together but able to slide. Gas: spread far apart.



Solid Liquid Gas

Check each box that is true.

	Solid	Liquid	Gas
keeps its own shape	✓		
takes the shape of its container		✓	✓
spreads out to fill the whole container			✓
can be poured		✓	
particles are packed tightly	✓		
particles are far apart			✓

Art © Kevin Coulston

ANSWER KEY · STATES OF MATTER · GRADES 3–5

Answer Key: Changes of State

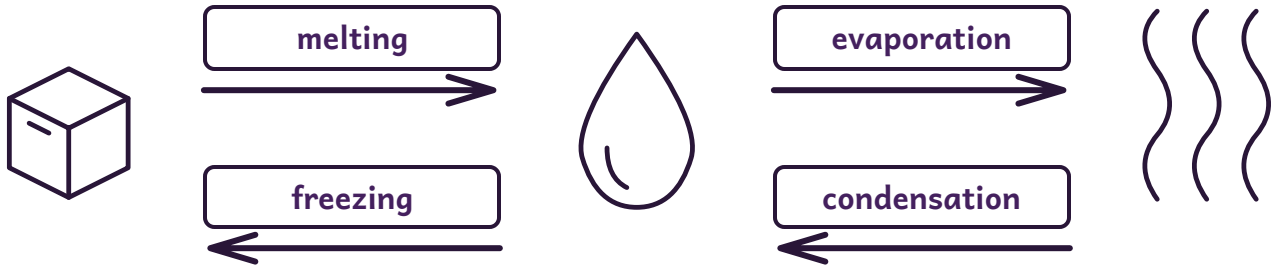
Answers for grown-ups. Some questions have more than one good answer.



Word bank

melting · freezing · evaporation · condensation · liquid

Write the name of each change on its arrow.



ice (solid) — water (liquid) — water vapor (gas)

1. When ice gets warm, it starts **melting**.
2. A puddle drying up in the sun is **evaporation**.
3. Water drops on the outside of a cold glass come from **condensation**.
4. Water turning into ice in the freezer is **freezing**.
5. Heating makes matter change from solid to **liquid** to gas.

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