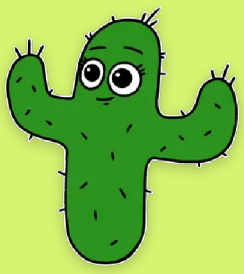
ANSWER KEY · PLANT LIFE CYCLE · GRADES K–2

Answer Key: Plant Life Cycle Cut and Paste

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

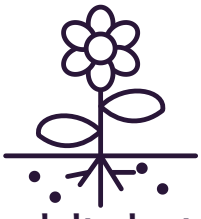


Glue the pictures in order. The seed goes in box 1.

1. seed
2. sprout
3. seedling
4. adult plant

Plant Life Cycle

✂ Cut out the cards on the dashed lines.


adult plant


seed


seedling

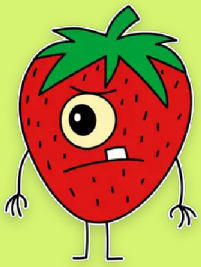

sprout

Art © Kevin Coulston

ANSWER KEY · PLANT LIFE CYCLE · GRADES 1–3

Answer Key: Parts of a Plant

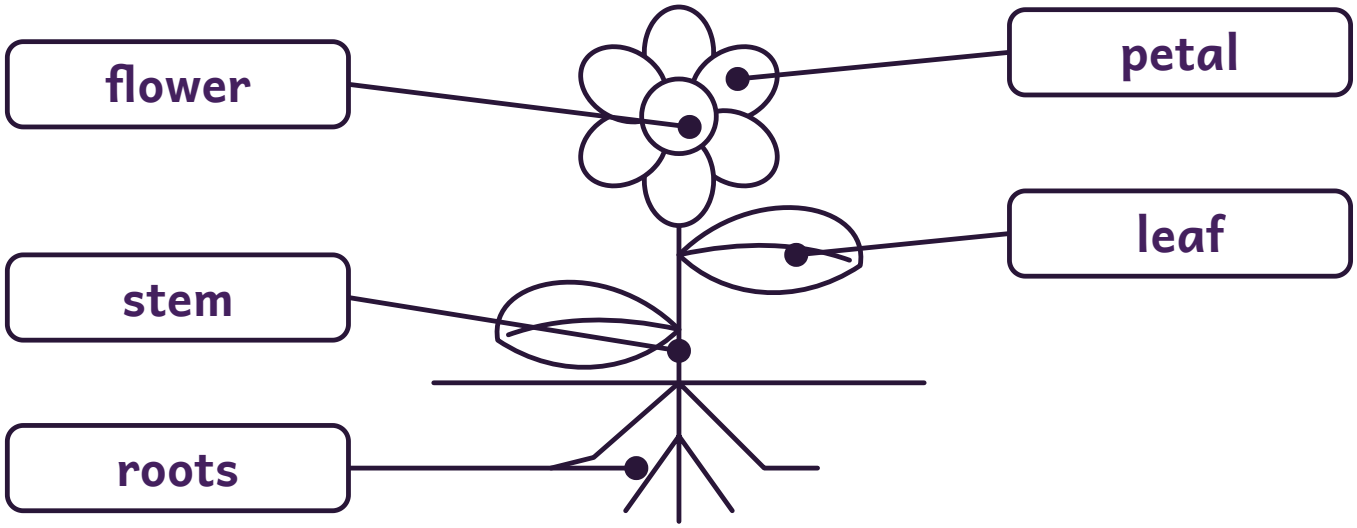
Answers for grown-ups. Some questions have more than one good answer.



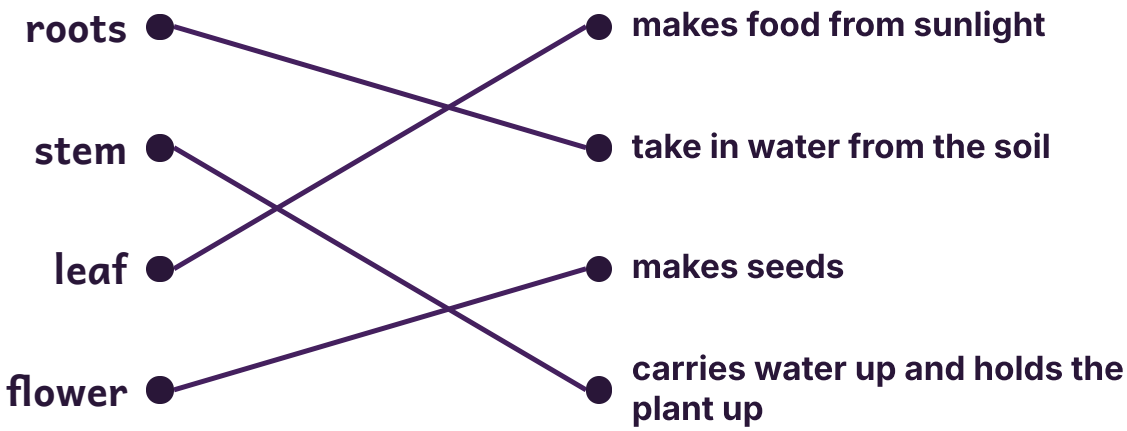
Word bank

flower · petal · leaf · stem · roots

Write the name of each part.



Draw a line from each part to its job.



Art © Kevin Coulston

ANSWER KEY · PLANT LIFE CYCLE · GRADES K–2

Answer Key: What Do Plants Need?

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



Color the 5 things a plant needs to grow. Put an X on the others.

sunlight	candy	water	a toy car
shoes	air	a pillow	soil
a TV	space to grow	a book	a hat

Draw a plant that gets water every day.

Draw a plant that gets no water for two weeks.

What do you think happens to the plant with no water?

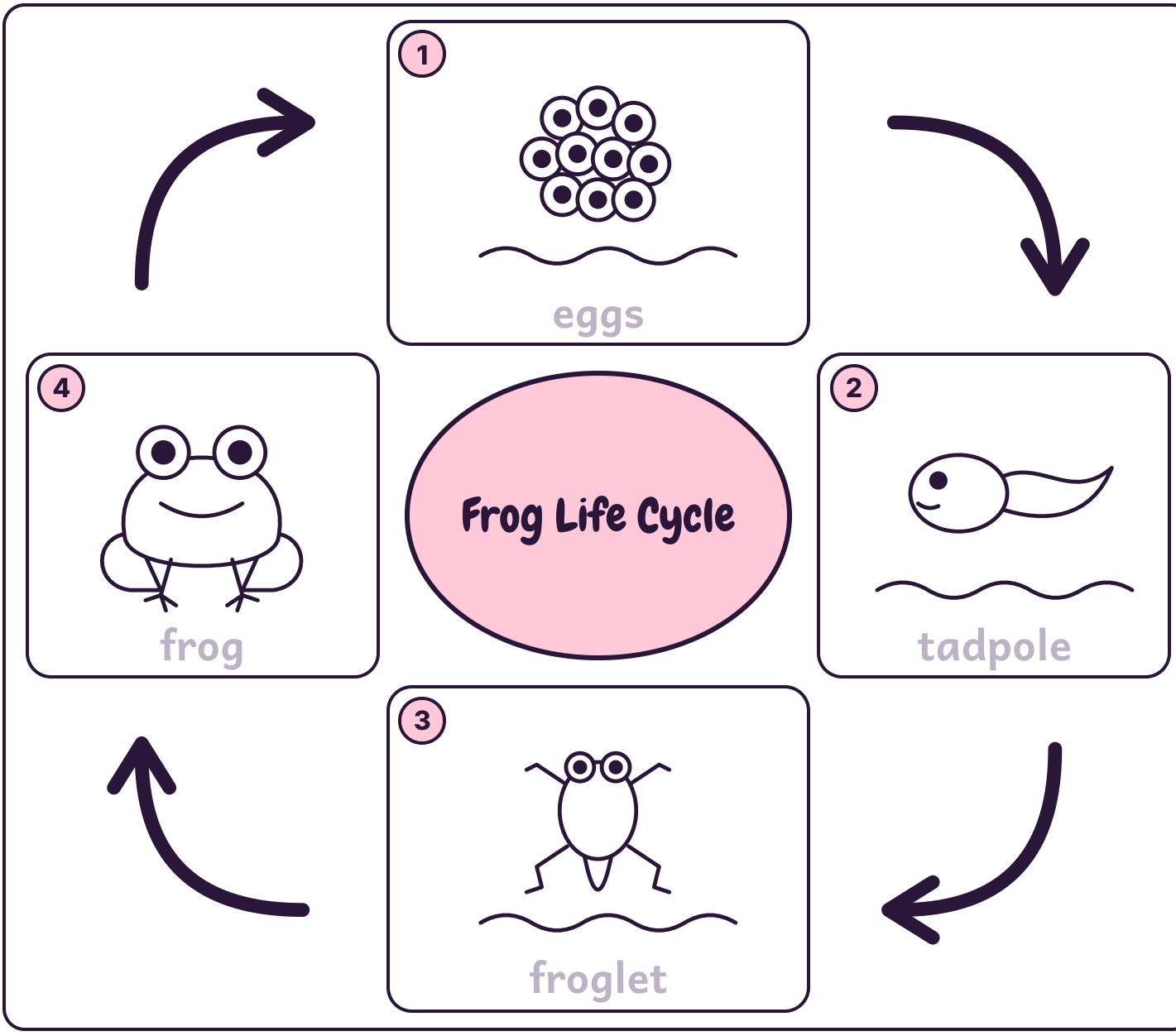
Art © Kevin Coulston

ANSWER KEY · BUTTERFLY AND FROG LIFE CYCLES · GRADES K–2

Answer Key: The Life Cycle of a Frog

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





Circle the answer.

Tadpoles live in — **water** / sand / trees

A frog starts life as an — apple / **egg** / ant

Art © Kevin Coulston

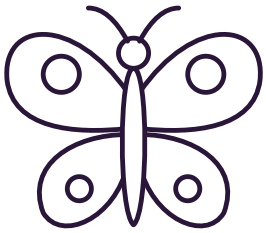
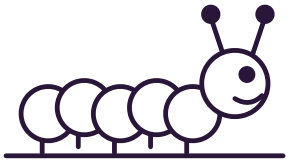
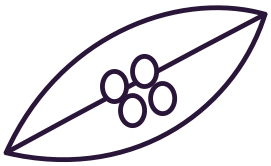
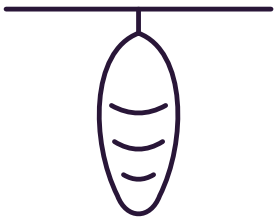
ANSWER KEY · BUTTERFLY AND FROG LIFE CYCLES · GRADES K–3

Answer Key: Put the Life Cycles in Order

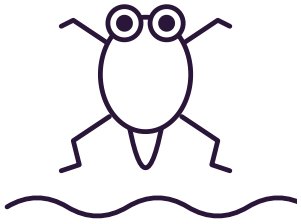
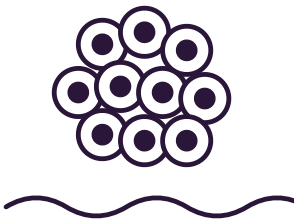
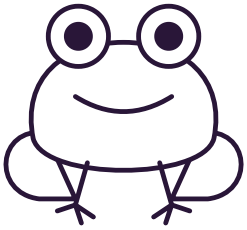
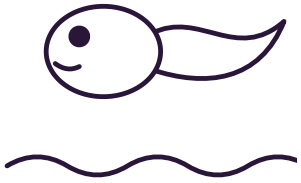
Answers for grown-ups. Some questions have more than one good answer.



Butterfly: write 1, 2, 3 and 4 to put the stages in order.

4	2	1	3
			
butterfly	caterpillar	egg	chrysalis

Frog: write 1, 2, 3 and 4 to put the stages in order.

3	1	4	2
			
froglet	eggs	frog	tadpole

How are the two life cycles alike?

Art © Kevin Coulston

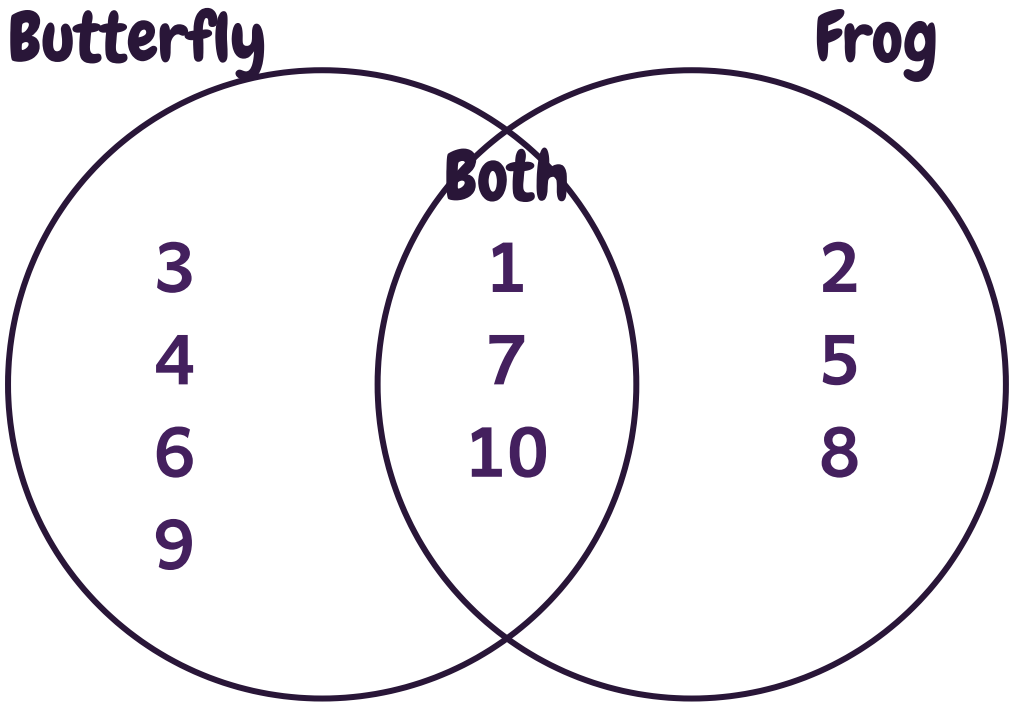
ANSWER KEY · BUTTERFLY AND FROG LIFE CYCLES · GRADES 1–3

Answer Key: Butterfly, Frog or Both?

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



Write the number of each fact in the right part of the diagram.



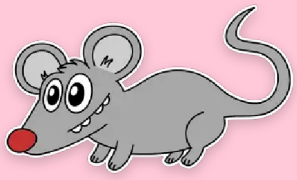
1. starts life as an egg
2. lays eggs in water
3. lays eggs on a leaf
4. makes a chrysalis
5. has a tail as a baby
6. the adult has wings
7. goes through metamorphosis
8. babies breathe with gills
9. the adult has six legs
10. changes shape as it grows

Art © Kevin Coulston

ANSWER KEY · BUTTERFLY AND FROG LIFE CYCLES · GRADES 2–3

Answer Key: Life Cycle Words

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



Draw a line from each word to its meaning.

larva	the caterpillar stage of a butterfly
pupa	the stage inside a chrysalis, when the body changes
metamorphosis	a big change in body shape as an animal grows
tadpole	a baby frog with a tail that lives in water
froglet	a young frog with legs and a short tail
gills	body parts a tadpole uses to breathe underwater

Word bank

egg · leaves · chrysalis · wings · larva

1. A butterfly lays an **egg** on a leaf.
2. A caterpillar, or **larva**, hatches out.
3. The caterpillar eats lots of **leaves** and grows.
4. It makes a **chrysalis** around itself.
5. A butterfly with **wings** comes out.

Art © Kevin Coulston

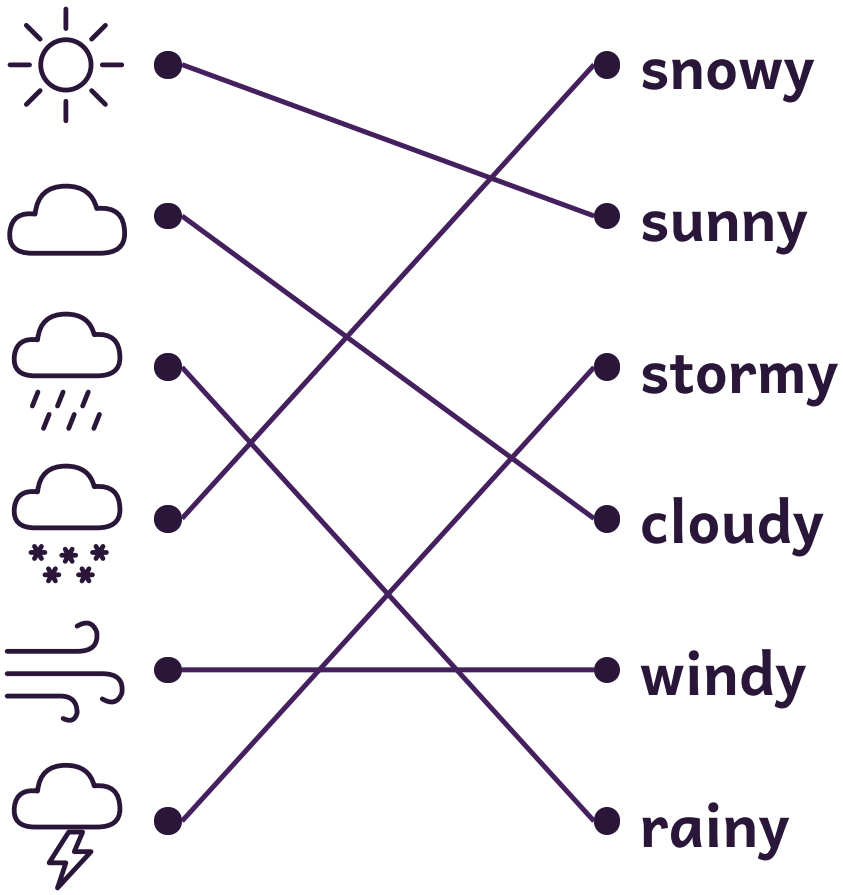
ANSWER KEY · WEATHER · GRADES K–2

Answer Key: Weather Words and Symbols

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



Draw a line from each symbol to its word.



Draw what you wear on a rainy day.

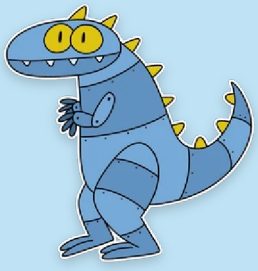
Draw what you wear on a snowy day.

Art © Kevin Coulston

ANSWER KEY · WEATHER · GRADES 3–5

Answer Key: Weather Tools

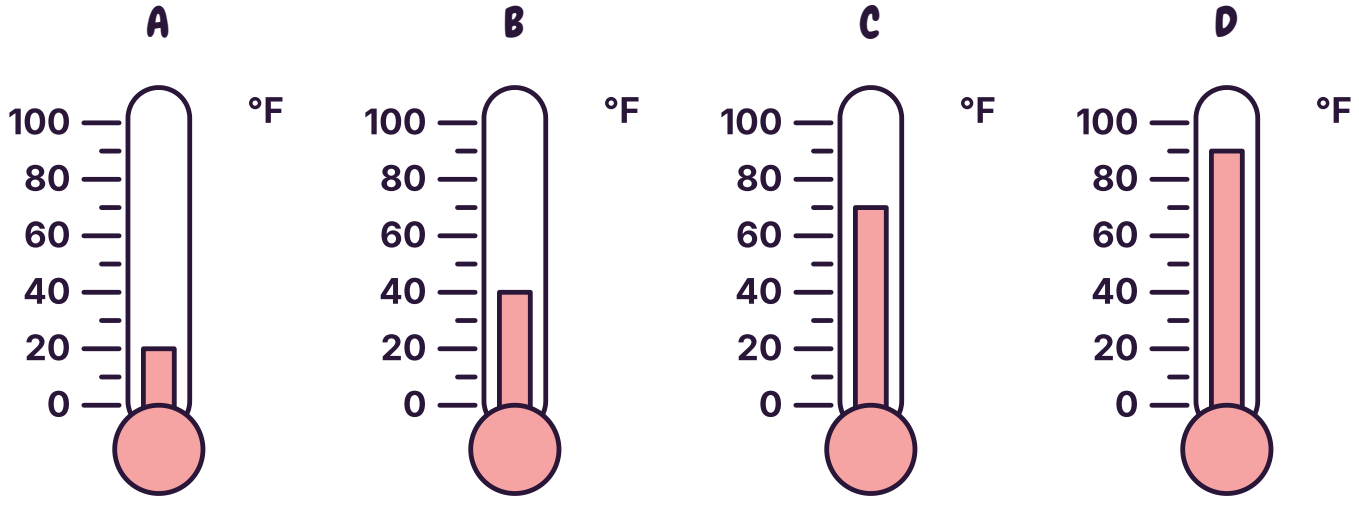
Answers for grown-ups. Some questions have more than one good answer.



1. Draw a line from each tool to what it measures.

thermometer	temperature (how hot or cold)
rain gauge	how much rain falls
wind vane	which way the wind blows
anemometer	how fast the wind blows
barometer	air pressure

2. Read each thermometer. Write the temperature.



A: 20 °F

B: 40 °F

C: 70 °F

D: 90 °F

3. Which thermometer shows freezing weather (below 32 °F)? Letter: A (20 °F)

Art © Kevin Coulston

ANSWER KEY · SOLAR SYSTEM · GRADES 1–3

Answer Key: The Planets in Order

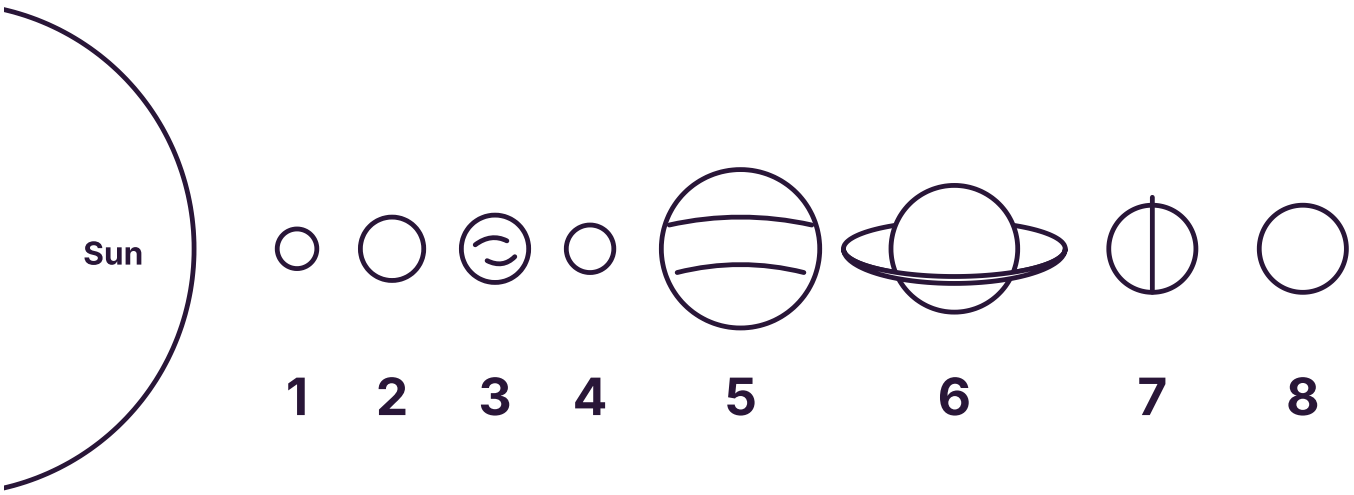
Answers for grown-ups. Some questions have more than one good answer.



Word bank

Jupiter · Earth · Uranus · Mercury · Mars · Venus · Neptune · Saturn

Write the name of each planet in order from the sun.



1. Mercury
2. Venus
3. Earth
4. Mars
5. Jupiter
6. Saturn
7. Uranus
8. Neptune

Remember the order: **M**y **V**ery **E**asy **M**ethod **J**ust **S**peeds **U**p **N**aming. Each word starts with the same letter as a planet.

The planet we live on is Earth

The biggest planet is Jupiter

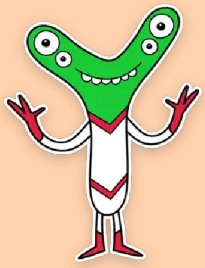
The planet closest to the sun is Mercury

Art © Kevin Coulston

ANSWER KEY · SOLAR SYSTEM · GRADES 2–4

Answer Key: Rocky Planets and Giant Planets

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



The four planets closest to the sun are small and **rocky**. The four planets farther out are **giant planets** made mostly of gas and ice.

Write each planet in the right box.

Rocky planets	Giant planets
Earth	Jupiter
Mars	Neptune
Mercury	Saturn
Venus	Uranus

Circle the answer.

Which planet is the Red Planet? **Mars** · Venus · Neptune

Which is a giant planet? Earth · **Saturn** · Mercury

Which giant planet is the biggest? **Jupiter** · Uranus · Neptune

Where would you find a solid surface to stand on? **Mars** · Jupiter · Uranus

Which planet is farthest from the sun? Saturn · Uranus · **Neptune**

Art © Kevin Coulston

ANSWER KEY · SOLAR SYSTEM · GRADES 3–5

Answer Key: Phases of the Moon

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

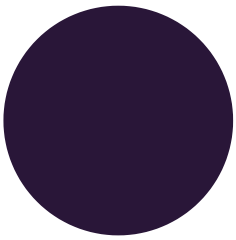


Word bank

new moon · waxing crescent · first quarter · waxing gibbous · full moon · waning gibbous · third quarter · waning crescent

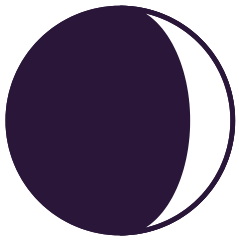
Label each phase. The moon goes through all eight in about 29½ days.

1



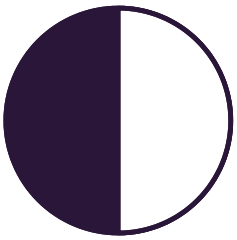
new moon

2



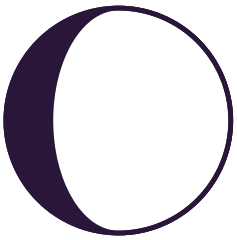
waxing crescent

3



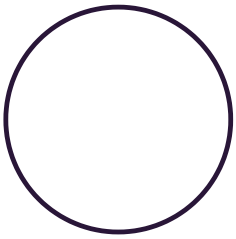
first quarter

4



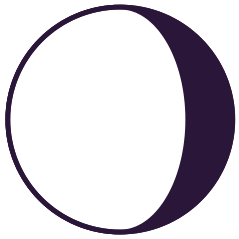
waxing gibbous

5



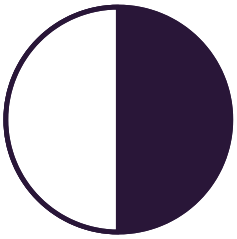
full moon

6



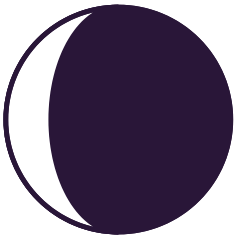
waning gibbous

7



third quarter

8



waning crescent

Circle the answer.

The moon shines because it

makes its own light · **reflects light from the sun**

"Waxing" means the lit part is

getting bigger · **getting smaller**

A full moon looks like

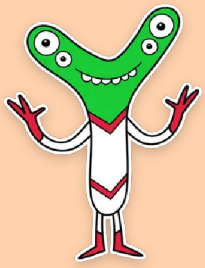
a whole bright circle · **a thin sliver**

Art © Kevin Coulston

ANSWER KEY · SOLAR SYSTEM · GRADES 2–5

Answer Key: Space: True or False?

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



Circle True or False.

The sun is a star.	**True**	False
Earth is the third planet from the sun.	**True**	False
The moon makes its own light.	True	**False**
Jupiter is the biggest planet.	**True**	False
Mars is called the Red Planet.	**True**	False
Saturn is the only planet with rings.	True	**False**
Earth takes about 365 days to go around the sun.	**True**	False
Venus is the hottest planet.	**True**	False
Earth spins around once every week.	True	**False**
Neptune is the closest planet to the sun.	True	**False**

Pick two false sentences and fix them so they are true.

Art © Kevin Coulston

ANSWER KEY · HABITATS AND ADAPTATIONS · GRADES 1–3

Answer Key: Animal Habitat Sort

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



Glue each animal under its habitat.

Ocean	Desert	Arctic	Rainforest
shark	camel	polar bear	toucan
octopus	scorpion	walrus	sloth
sea turtle	roadrunner	arctic fox	poison dart frog

✂ Cut out the cards on the dashed lines.

arctic fox	walrus	poison dart frog	octopus	sea turtle	polar bear
camel	toucan	roadrunner	sloth	scorpion	shark

Art © Kevin Coulston

ANSWER KEY · HABITATS AND ADAPTATIONS · GRADES 2–5

Answer Key: Animal Adaptations Match

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



An **adaptation** is a body part or a behavior that helps an animal live in its habitat.

Draw a line from each animal to the adaptation that helps it.

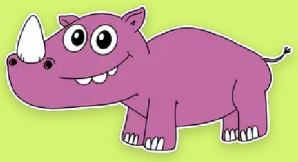


Pick one animal. How would it do in a different habitat?

Art © Kevin Coulston

ANSWER KEY · HABITATS AND ADAPTATIONS · GRADES 3–5

Answer Key: Physical or Behavioral?



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

Physical adaptations are body parts, like a beak or fur. **Behavioral** adaptations are things an animal does, like sleeping all winter.

Write each adaptation in the right column.

colors that blend in · hunting at night · a long, sharp beak · flying south for winter · sharp claws · sleeping all winter (hibernating) · webbed feet · living in a herd · playing dead · thick fur

Physical	Behavioral
thick fur	flying south for winter
sharp claws	sleeping all winter (hibernating)
webbed feet	hunting at night
colors that blend in	living in a herd
a long, sharp beak	playing dead

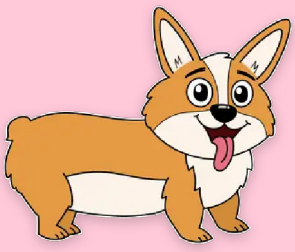
Name one adaptation people have. Is it physical or behavioral?

Art © Kevin Coulston

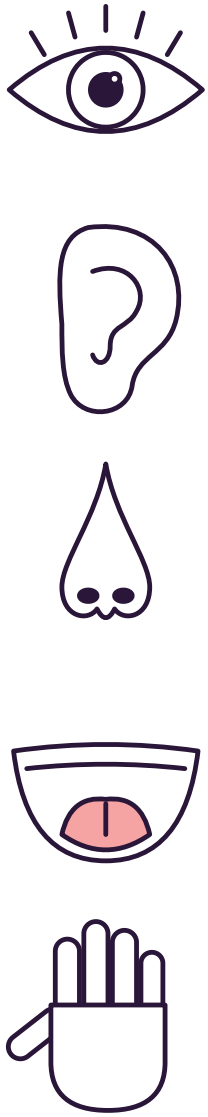
ANSWER KEY · FIVE SENSES · GRADES K–1

Answer Key: My Five Senses

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



Draw a line from each body part to its sense.



smell

touch

see

taste

hear

Trace the sentence.

I have five senses.

Art © Kevin Coulston

ANSWER KEY · FIVE SENSES · GRADES 1–2

Answer Key: Which Sense Would You Use?

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



Glue each card under the sense you would use most.

see	hear	smell	taste	touch
a rainbow	a drum	a flower	a sour lemon	soft kitten fur
the stars	a dog barking	cookies baking	salty popcorn	a prickly cactus

✂ Cut out the cards on the dashed lines.

a rainbow	a dog barking	a sour lemon	cookies baking	the stars
soft kitten fur	a drum	a flower	salty popcorn	a prickly cactus

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.**

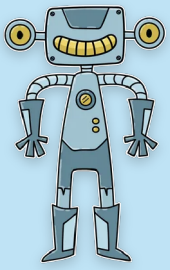
a book	an ice cube	steam from a pot	air in a balloon	bubbles in soda	rain
juice	milk	the air we breathe	a rock	honey	a pencil

Art © Kevin Coulston

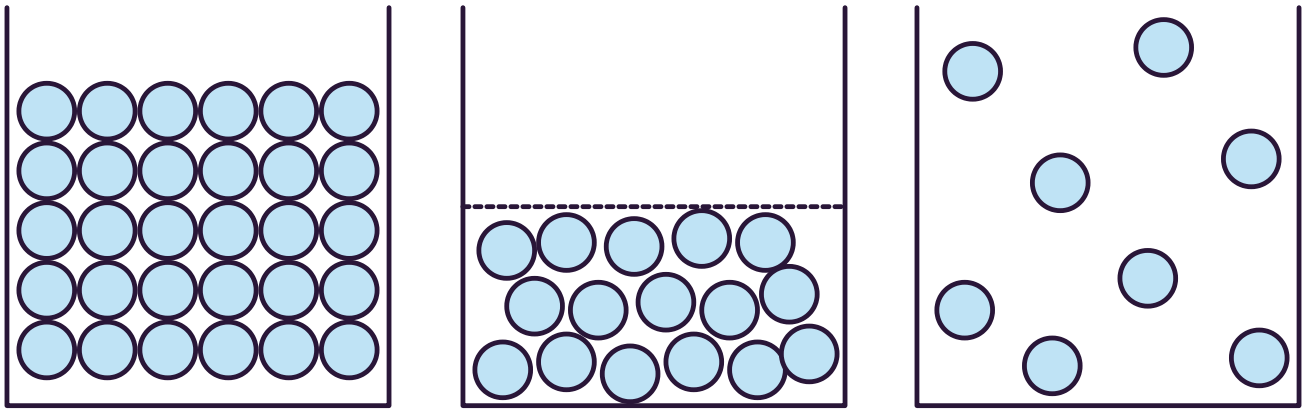
ANSWER KEY · STATES OF MATTER · GRADES 3–5

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

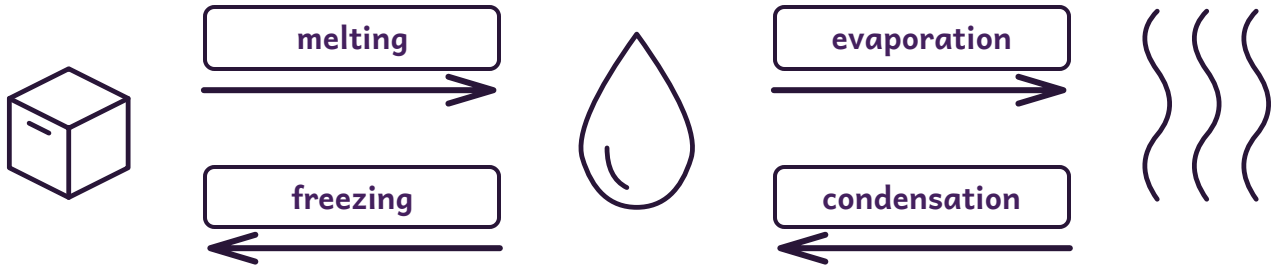
Answers for grown-ups. Some questions have more than one good answer.



Word bank

melting · freezing · evaporation · condensation · liquid

Write the name of each change on its arrow.



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

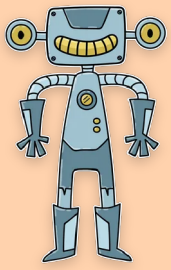
1. When ice gets warm, it starts **melting**.
2. A puddle drying up in the sun is **evaporation**.
3. Water drops on the outside of a cold glass come from **condensation**.
4. Water turning into ice in the freezer is **freezing**.
5. Heating makes matter change from solid to **liquid** to gas.

Art © Kevin Coulston

ANSWER KEY · SIMPLE MACHINES AND ENGINEERING · GRADES 2–4

Answer Key: The Six Simple Machines

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

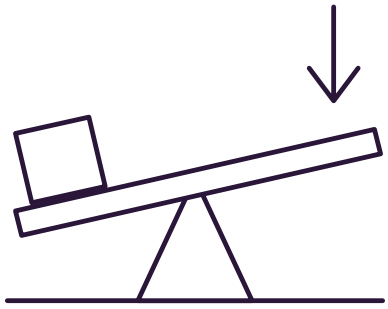


Word bank

wheel and axle | inclined plane | screw | pulley | lever | wedge

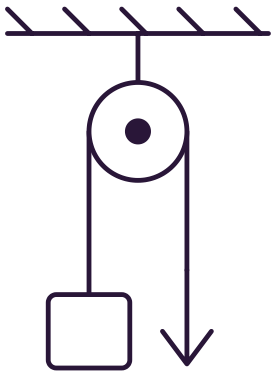
Write the name of each simple machine.

1



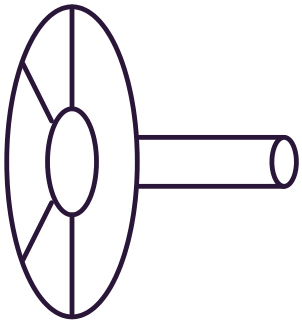
lever

2



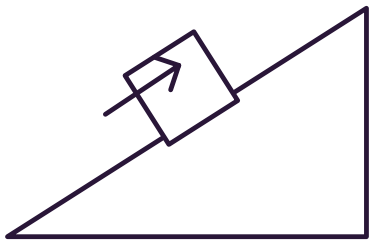
pulley

3



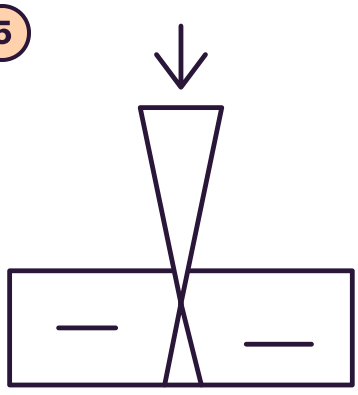
wheel and axle

4



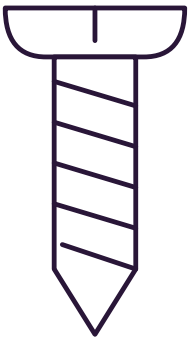
inclined plane

5



wedge

6



screw

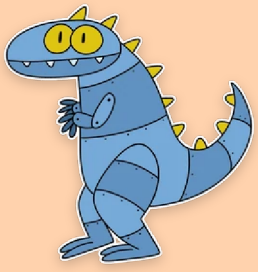
A simple machine makes work easier. Which one would you use to lift a heavy box onto a truck?

Art © Kevin Coulston

ANSWER KEY · SIMPLE MACHINES AND ENGINEERING · GRADES 2–5

Answer Key: Simple Machines All Around

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



Word bank

lever | pulley | wheel and axle | inclined plane | wedge | screw

Write the simple machine you find in each thing.

a seesaw: lever

a wheelchair ramp: inclined plane

a flagpole rope: pulley

a doorknob: wheel and axle

an axe: wedge

a jar lid: screw

a bottle opener: lever

a zipper: wedge

a light bulb base: screw

a steering wheel: wheel and axle

Find a simple machine in your classroom or home. Draw it and name it.

Art © Kevin Coulston

ANSWER KEY · SCIENTIFIC METHOD · GRADES 2–4

Answer Key: Steps of the Scientific Method

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



Write 1 to 7 to put the steps of the scientific method in order.

3 Make a hypothesis: a guess you can test.

7 Share your results.

1 Ask a question.

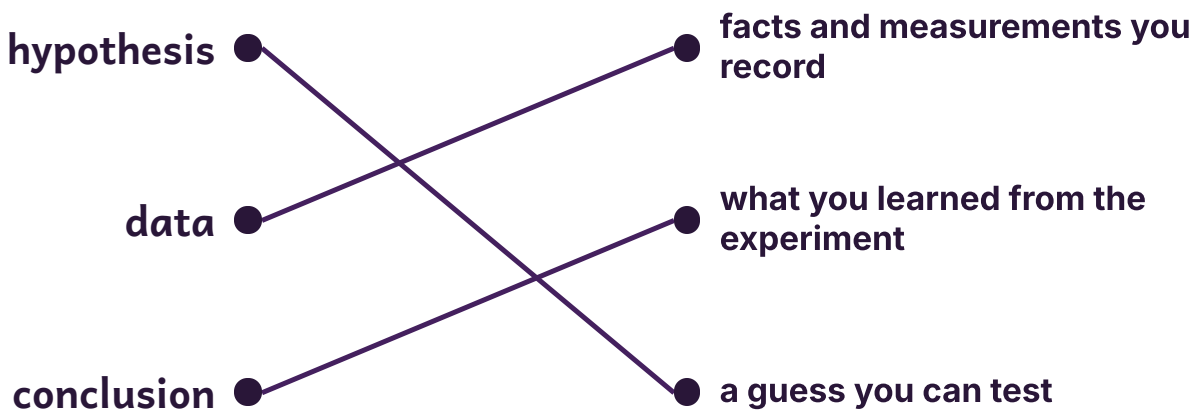
5 Record and look at the data.

2 Do some research.

6 Draw a conclusion.

4 Test it with an experiment.

Draw a line from each word to its meaning.

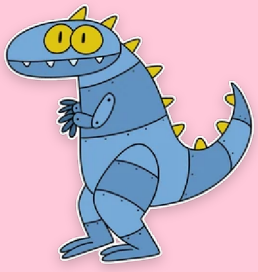


Art © Kevin Coulston

ANSWER KEY · SCIENTIFIC METHOD · GRADES 3–5

Answer Key: Hypotheses and Variables

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



In a fair test, you **change** one thing, **measure** one thing and keep **everything else the same**.

1. Does a higher ramp make a toy car roll farther?

I change: the height of the ramp

I measure: how far the car rolls

I keep the same: the car, the ramp and the floor

If-then hypothesis: If the ramp is higher, then the car will roll farther.

2. Do bean plants grow taller with more sunlight?

I change: how much sunlight the plants get

I measure: how tall the plants grow

I keep the same: the kind of bean, the water and the soil

If-then hypothesis: If a plant gets more sunlight, then it will grow taller.

3. Does salt make ice melt faster?

I change: salt or no salt on the ice

I measure: how long the ice takes to melt

I keep the same: the size of the ice cubes and the room

If-then hypothesis: If we put salt on ice, then it will melt faster.

Art © Kevin Coulston

ANSWER KEY · SCIENTIFIC METHOD · GRADES 3–5

Answer Key: Observation or Inference?

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



An **observation** is something you notice with your senses. An **inference** is something you figure out from what you notice.

Circle O for observation or I for inference.

The leaf is green and yellow.	**O**	I
The leaf fell because it is fall.	O	**I**
The sidewalk is wet.	**O**	I
It rained last night.	O	**I**
The dog is wagging its tail.	**O**	I
The dog is happy to see us.	O	**I**
The ice cube is getting smaller.	**O**	I
The ice is melting because the room is warm.	O	**I**
The rock has three gray stripes.	**O**	I
Someone ate the last cookie.	O	**I**

Write one observation and one inference about your classroom.

Art © Kevin Coulston

ANSWER KEY · FOOD CHAINS AND ECOSYSTEMS · GRADES 3–4

Answer Key: Put the Food Chains in Order

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



A food chain shows who eats what. It starts with a **producer**, a plant that makes food from sunlight. The arrow points to the animal that eats it.

Meadow: snake, grass, frog, grasshopper



Forest: hawk, acorns, snake, mouse



Ocean: seal, krill, algae, penguin



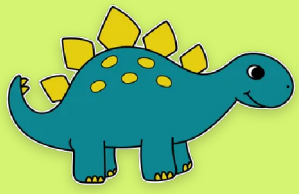
Where does the energy in every food chain first come from?

Art © Kevin Coulston

ANSWER KEY · FOOD CHAINS AND ECOSYSTEMS · GRADES 3–5

Answer Key: Producers, Consumers and Decomposers

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



Producers make their own food from sunlight. **Consumers** eat other living things. **Decomposers** break down dead plants and animals.

Write each living thing in the right column.

deer · frog · oak tree · earthworm · rabbit · bacteria · mushroom · owl · algae · sunflower · mold · grass

Producers	Consumers	Decomposers
grass	rabbit	mushroom
oak tree	owl	earthworm
algae	deer	bacteria
sunflower	frog	mold

What would happen to a forest with no decomposers?

Art © Kevin Coulston

ANSWER KEY · FOOD CHAINS AND ECOSYSTEMS · GRADES 3–5

Answer Key: Herbivore, Carnivore or Omnivore?

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



Herbivores eat only plants. **Carnivores** eat only meat. **Omnivores** eat plants and meat.

Write each animal in the right column.

wolf · owl · deer · raccoon · lion · chicken · bear · shark · rabbit · giraffe · people · cow

Herbivores	Carnivores	Omnivores
cow	lion	bear
deer	shark	raccoon
rabbit	wolf	chicken
giraffe	owl	people

Are you an herbivore, carnivore or omnivore? How do you know?

Art © Kevin Coulston

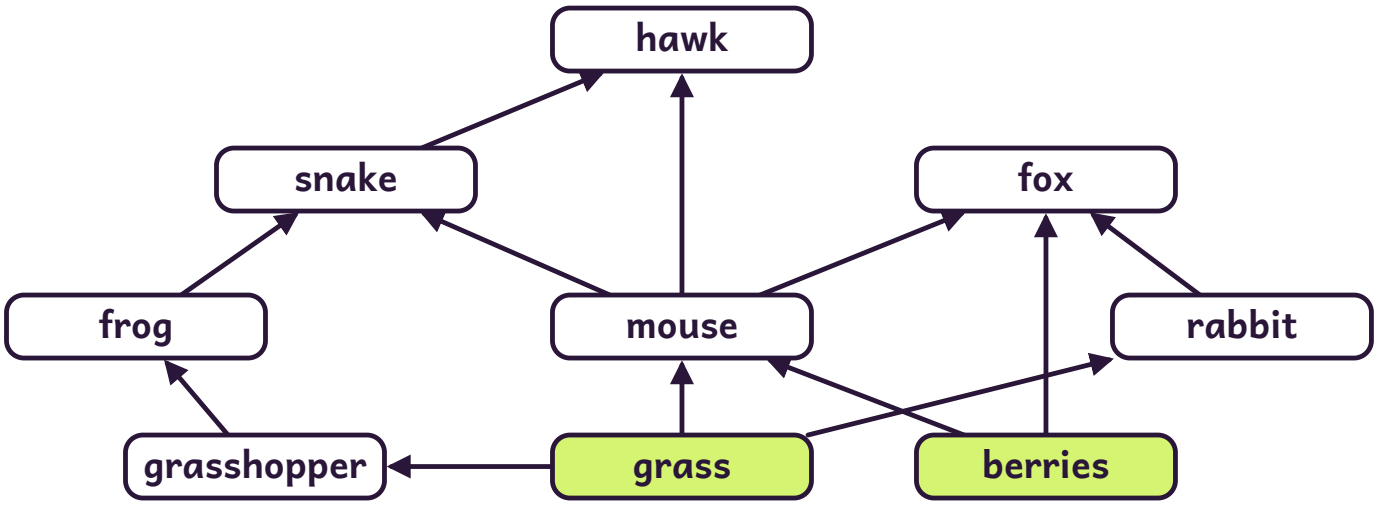
ANSWER KEY · FOOD CHAINS AND ECOSYSTEMS · GRADES 4–5

Answer Key: Read a Food Web

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



Arrows point from the food to the animal that eats it.



1. Name a producer. grass or berries

2. What does the frog eat? grasshoppers

3. Which animals eat mice? snakes, foxes and hawks

4. Write a food chain with four living things. grass → grasshopper → frog → snake

5. If the grasshoppers disappeared, what would happen to the frogs? fewer frogs: they would lose their food

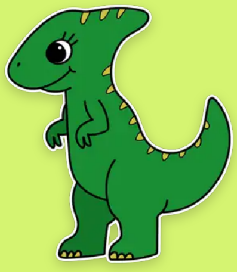
6. Which animal is the top predator? the hawk

Art © Kevin Coulston

ANSWER KEY · FOOD CHAINS AND ECOSYSTEMS · GRADES 3–5

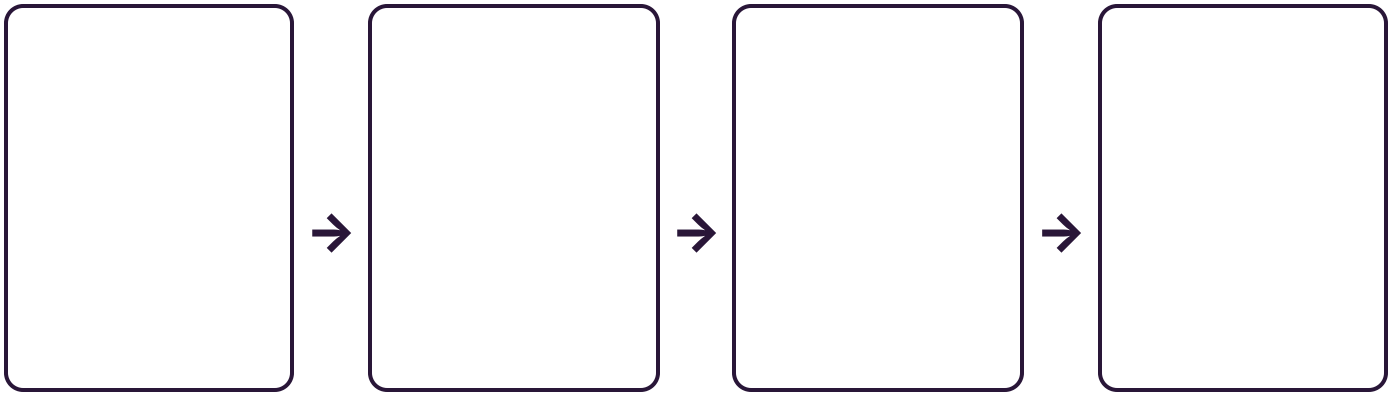
Answer Key: Build a Food Chain

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



My habitat: ☐ ocean ☐ forest ☐ desert ☐ pond ☐ grassland

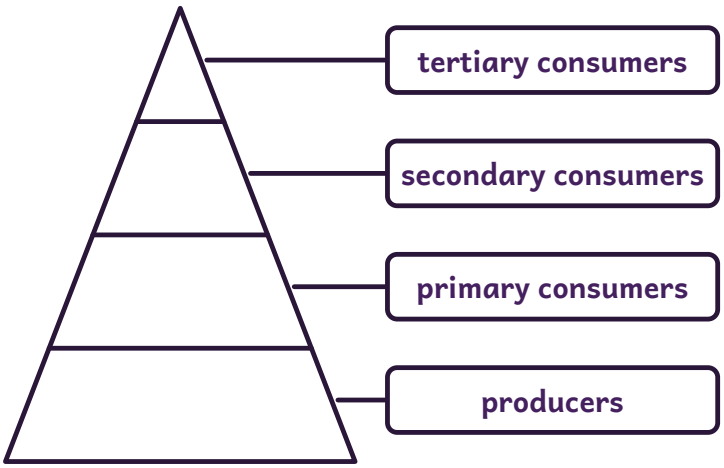
Draw a food chain with four living things. Label each one: producer or consumer.



Word bank

producers · primary consumers · secondary consumers · tertiary consumers

Label the energy pyramid.



Only about **one tenth** of the energy at each level moves up to the next. That is why there are lots of plants, fewer plant eaters and only a few top predators.

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