Our 10 Best Second Grade Science Printables

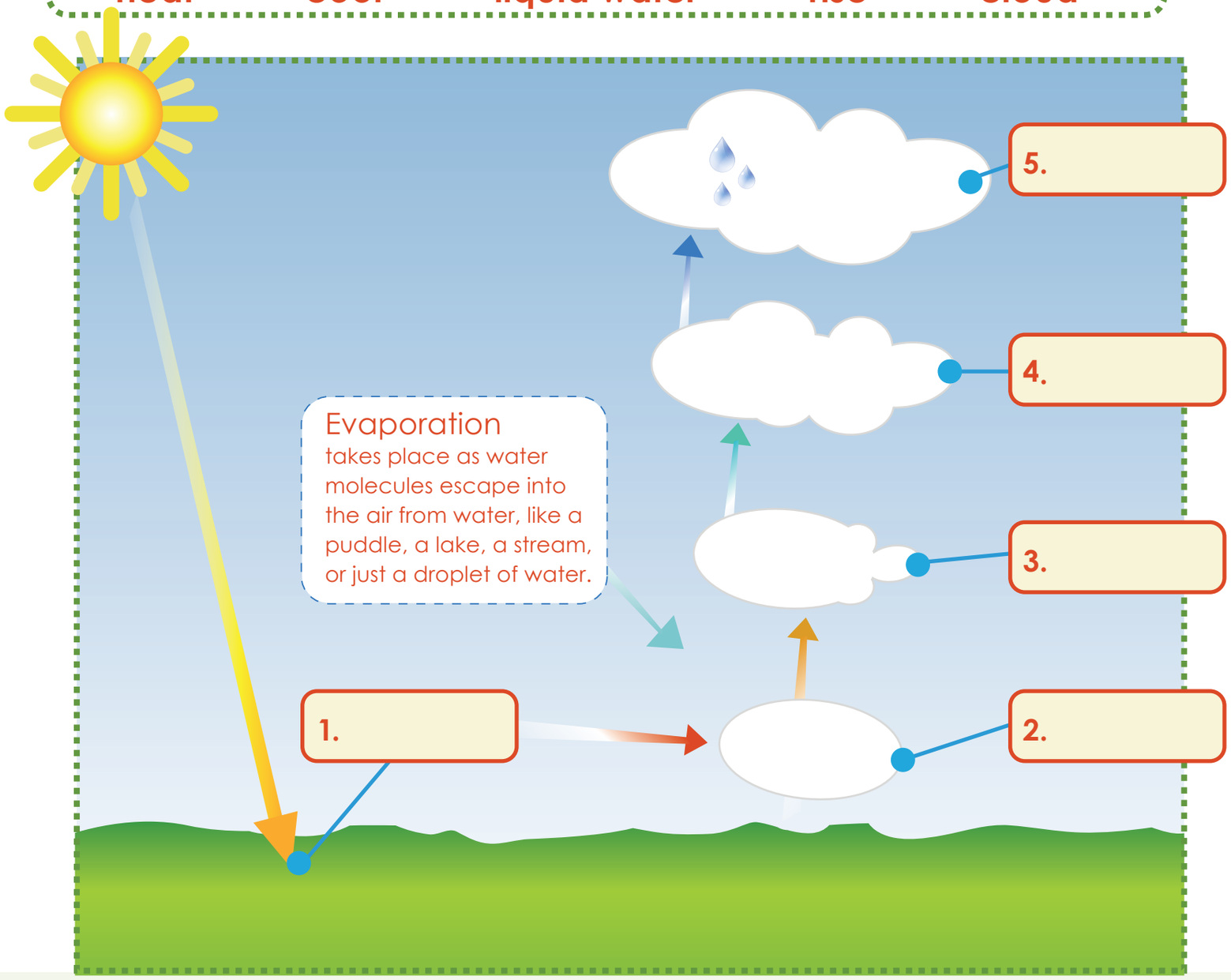
Nurture a passion for science with these physical, life and earth science worksheets. Your child will learn about everything from life cycles and weather to simple machines and the solar system with this collection of printables.

Table of Contents

How Do Clouds Form?

Use the words below and clues at the bottom to fill in the labels that describe how a cloud is formed.

heat **cool** **liquid water** **rise** **cloud**



1. Rays of the sun _____ up the moisture in the air close to the ground.
2. As these pockets of air are heated they begin to _____ .
3. As these heated pockets of air rise they _____ .
4. As it cools, the water vapor turns to tiny droplets of _____ .
5. The droplets crowd together and form a _____ .

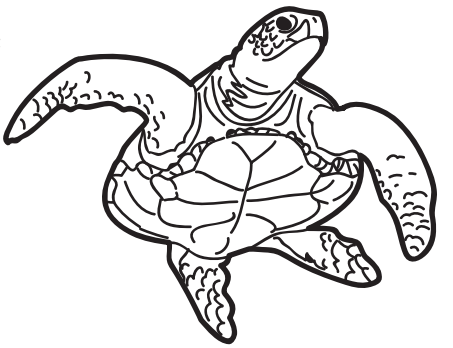
Name Date

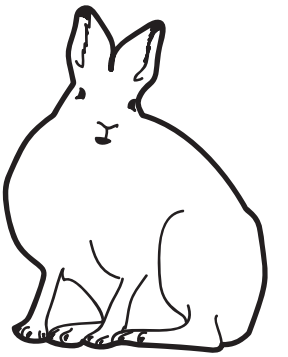
IDENTIFY INVERTEBRATES AND VERTEBRATES

Many different animals share our planet with us. Many are alike, and many are different. Scientists **classify** animals based on their similarities. One way scientists group animals is whether or not those animals have a backbone.

Some animals, like dogs, cats, birds, lizards, fish, and even humans have backbones - Scientists classify backboned animals as **vertebrate**.

Other animals, such as squid, worms, bugs, and clams do not have backbones. Scientists call these animals **invertebrates.**





Choose **five animals** from the list below. Write the animal's name, whether it is a vertebrate or invertebrate, and two important traits in the spreadsheet. An example has been provided for you.

Scorpion **Fox** **Octopus** **Snail** ~~**Rabbit**~~ **Wolf** **Deer**

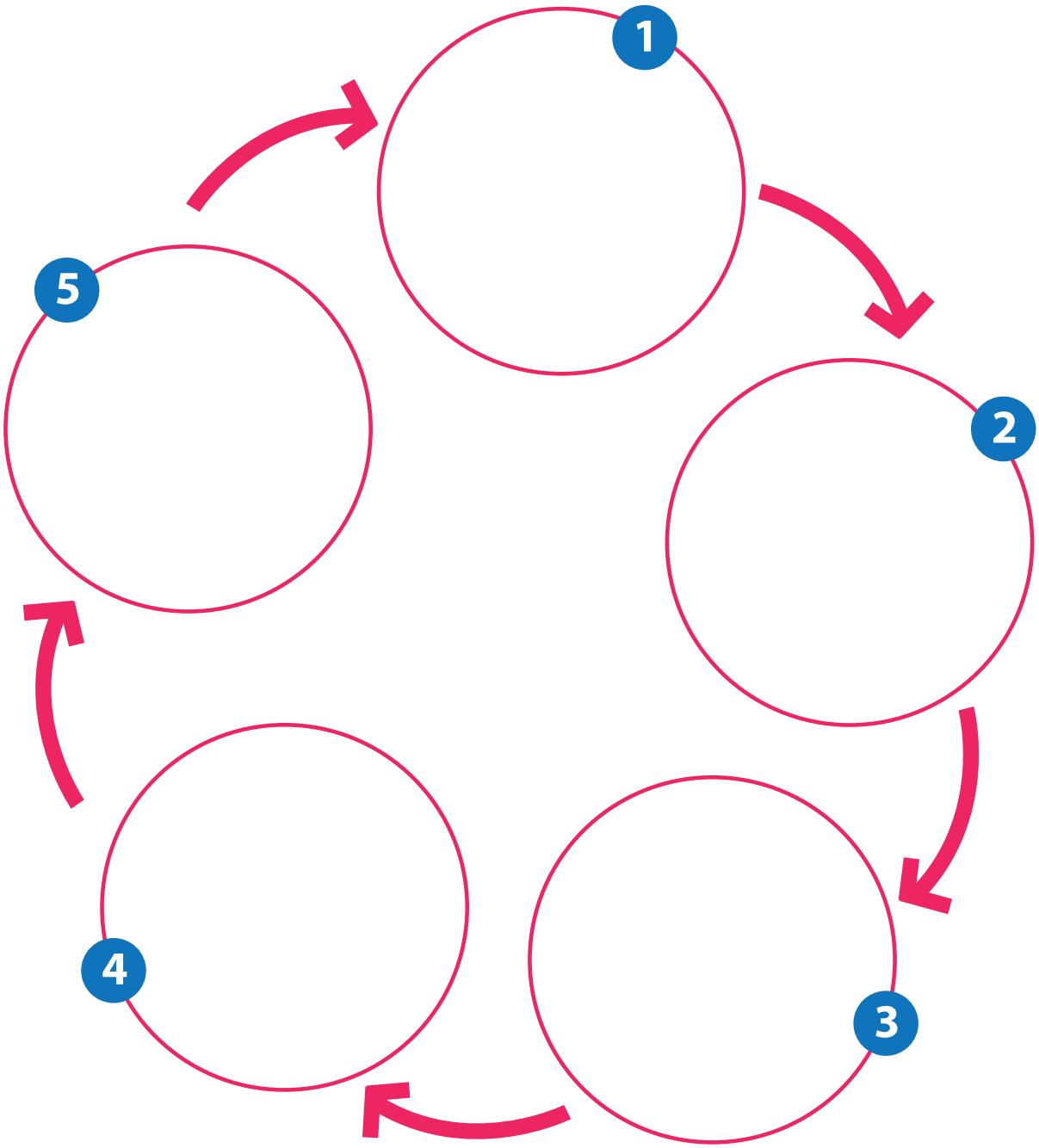
T-Rex **Spider** **Fish** **Jellyfish** **Turtle** **Beetle** **Hawk**

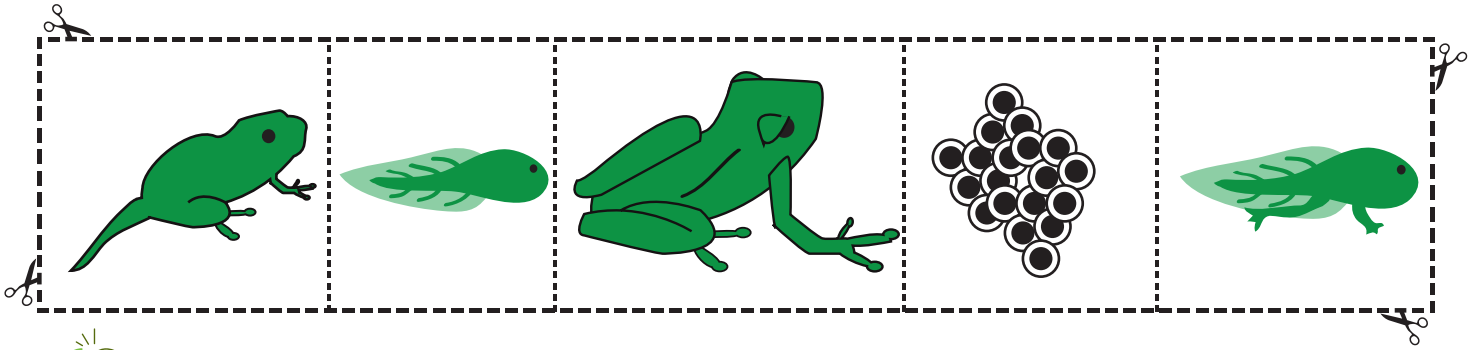
Animal	Vertebrate / Invertebrate	Two important traits
Rabbit	Vertebrate	1. A rabbit has long ears. 2. A rabbit is a mammal.

Science
Life Science

Life Cycle of a Frog

Cut out the pictures and paste them in the correct order on the life cycle chart.
Then order the sentences on the page 2 by labeling them with the correct number.





Science
Life Science

Life Cycle of a Frog

Put the sentences in order by labeling them with the correct number according to a frog's life cycle.

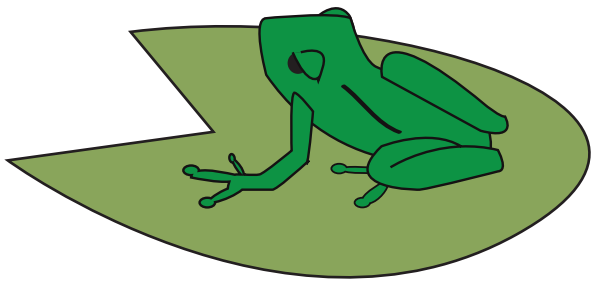
○ The cell inside the egg splits into two, then into four.
This process continues until there are many cells in the egg.
These cells develop into an embryo with living organs.
After about 21 days the egg hatches.

○ The tadpole now looks more like a frog with a very long tail.
It starts to eat insects. Over the next 12 weeks the tadpole's tail shortens and at the end it becomes an adult frog and leaves the water.

○ The tadpole gets stronger over the next 6-9 weeks.
It grows arms and legs, and its body gets longer.

○ Now the frog is fully grown. Later, it will return to the water to lay eggs.

○ After the egg hatches, a baby frog, or tadpole, comes out.
It has a long tail. It swims in the water and eats algae to build up strength.



Science
Physical

Forces

Forces are everywhere! You use force to pull a door handle, park a bike,or even stir soup! When you make something move, you exert force on the object. Look at the pictures below and describe how the person is exerting force. See the example.

Blowing to make bubbles move

Now draw three activities that you do that exert force.

Science Word Search!

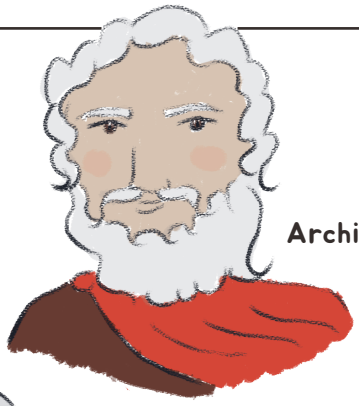
Find each of the words in the box below. Words may go across, down, or diagonally.

ATTRACT	CONSTELLATION	CRATER	EARTH
GAS	GENETICS	GLACIER	GRAVITY
LARVA	LIQUID	PHOTOSYNTHESIS	
REPEL	SKELETON	SOLID	

G A S Y C Z Z K D P G A R I
E G V R O Z I P Y H A E B H
N R C E N A H S N O T A L H
F A K P S Z G O H T T R A Y
H V G E T O T L F O R T R F
X I C L E E C I U S A H V X
G T L D L C I D L Y C U A S
L Y X E L V R A T N T T C T
A K K L A X D A W T Z I O P
C S C I T H V G T H T V I A
I B L Q I W Y X P E S A O A
E L F U O F L M N S R O S F
R H I I N X Q E W I X S S L
X B E D G S G F L S X M P L

Name _____ Date _____

Simple Machines



Archimedes

In ancient Greece a scientist named Archimedes came up with the idea that there are simple machines which can be used to make work easier. These machines could change the direction of movement and could lessen the amount of work needed for moving things. Later, scientists and artists like Galileo and Da Vinci advanced this idea and came up with the six simple machines we have today:

Galileo

da Vinci

pulley
screw
wheel and axle
wedge
lever
inclined plane

Almost all modern machines use one or more of these six simple machines.

Directions: Read the descriptions of the simple machines and match them to the correct image.

1. A **pulley** uses grooved wheels and ropes/chains to raise, lower, or move a load by pulling on the rope. ☐

2. A **wheel**, when combined with a rod through its center as an **axle**, can be used to lift or move loads. ☐

3. A **wedge** is an object with a slanted edge which is sharp. It can be used to cut or push two objects apart. ☐

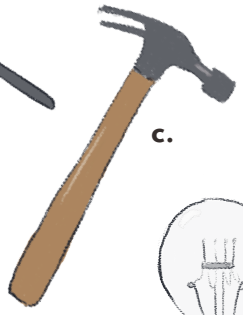
4. A **lever** is a bar that rests on a support, called a fulcrum, and can be used to lift or move loads. ☐

5. An **inclined plane** is any slanted surface that is used to connect a lower surface to a higher one. Heavy objects slide up the surface. ☐

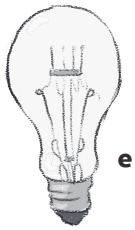
6. Screws are special kinds of inclined planes that are wrapped around a pole, which holds things together or lifts things. ☐

a.

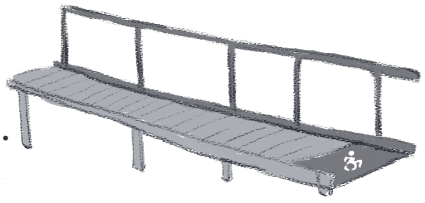
b.



c.



e.

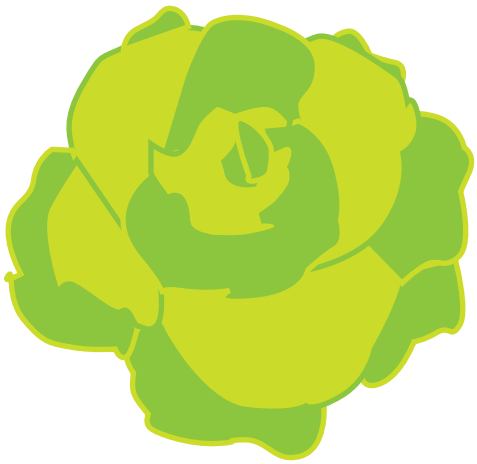


d.

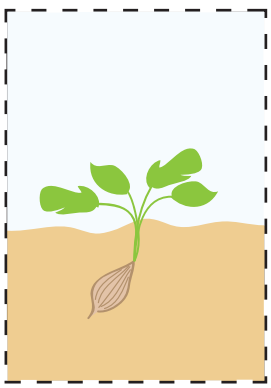
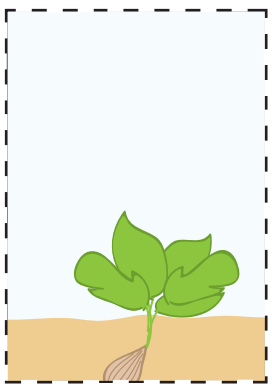
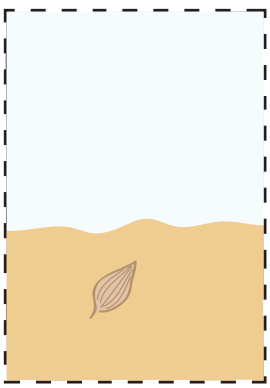
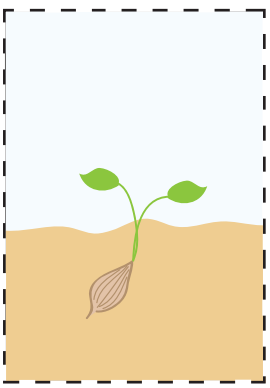
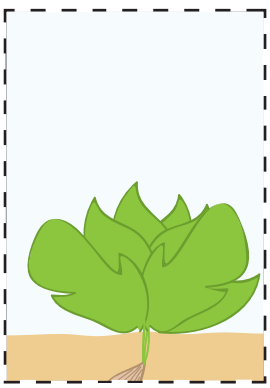
f.

How Does Lettuce Grow?

Lettuce grows when the average daily temperature is between 60° and 70°F.
It should be planted in early spring or late summer.



CUT OUT THE PIECES AND PASTE THEM IN ORDER OF GROWTH

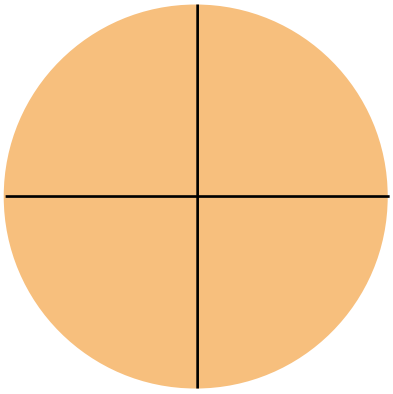






Created by:

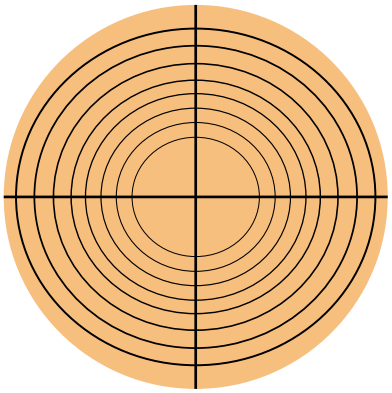
Make a Solar System Mobile

You will need:

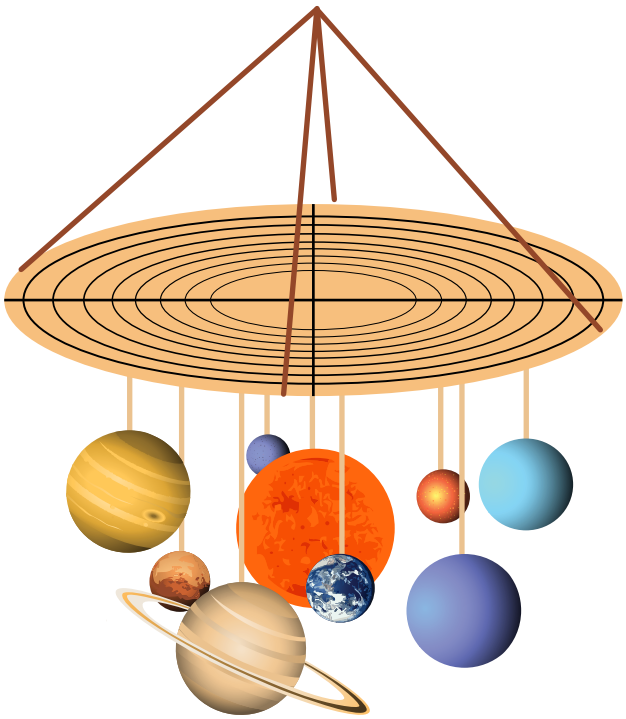
- String or yarn
- Tape or glue
- Scissors
- Hole punch or large nail
- Cardboard circle (one from a pizza works great)



1. Print out the sun and 8 planets on the following pages. Cut out each planet. (If you want, print out two of each planet and glue them together so that each planet has two sides.) Attach a piece of string to each with a piece of tape.



2. Draw a cross down the center of a round piece of cardboard.Then, using a compass, draw 8 circles, each bigger than the last. These will be the orbits of your planets.



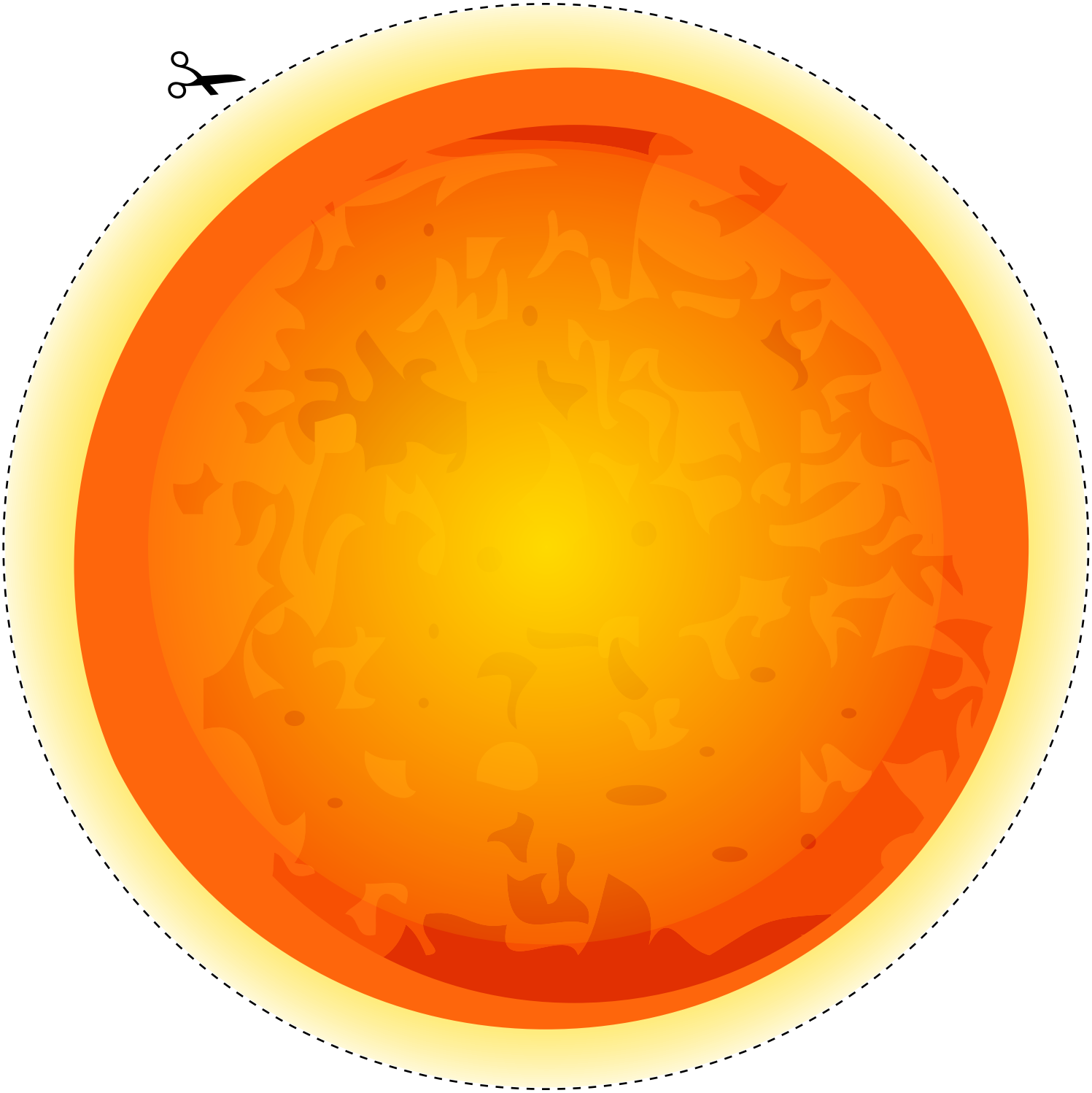
3. With a hole punch or a large nail, make holes in the middle of the cardboard for the sun. Then punch a hole on each orbit, spacing them out. Attach the sun in the middle, and each planet on its orbit in this order, from closest to the sun to farthest: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

4. To hang your solar system mobile, make four holes on the edge of the cardboard circle and tie on four pieces of string, then tie them together.

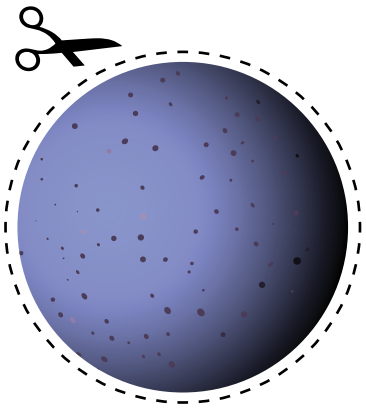
Make a Solar System Mobile

The Sun

The sun is much too big to show in accurate proportion to the planets, so we will just make it the biggest. Without the warmth and light of the sun, nothing could survive on our planet.



Make a Solar System Mobile

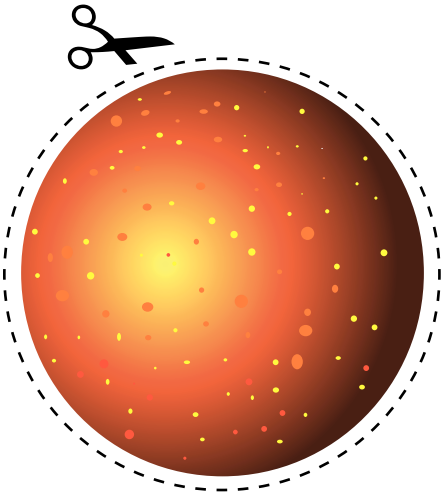


Mercury

Mercury is the closest planet to the sun. The surface of this barren planet is covered with craters. These craters have been created by thousands of years of being hit with asteroids and comets. There is no atmosphere on Mercury.

Venus

Venus is second closest to the sun. It is the hottest planet in the solar system. It is the brightest of all the planets, and is also known as the evening star and the morning star.



Make a Solar System Mobile

Earth

The Earth is the third planet from the sun, and the fifth largest of the eight planets in our solar system. It was formed 4.5 billion years ago, and life appeared on its surface within 1 billion years. Earth is home to millions of species, including humans — and that means you!

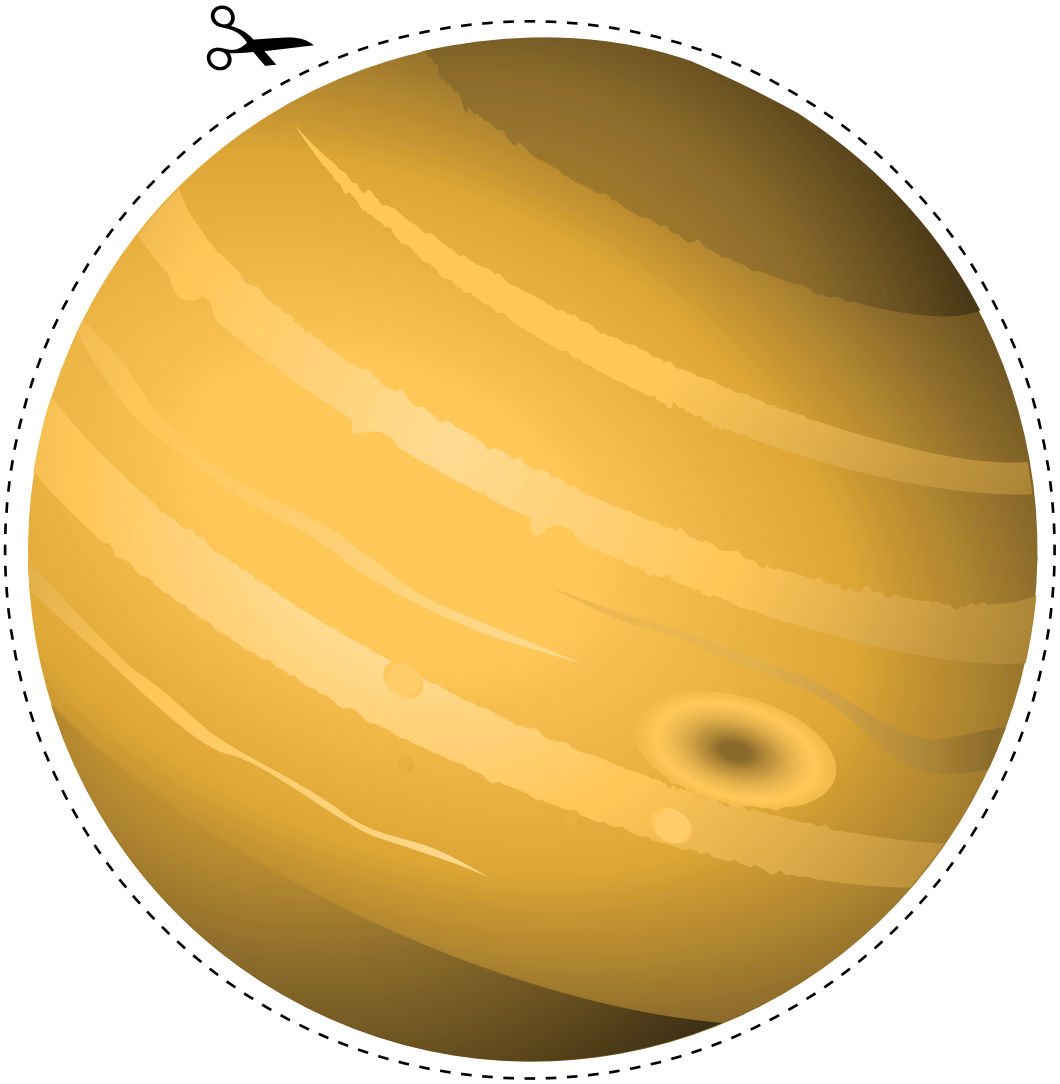
Mars

Mars has three moons, and has the nickname "The Red Planet." Mars is the only planet whose surface can be seen in detail from the Earth. Mars is the fourth closest planet to the sun.

Make a Solar System Mobile

Jupiter

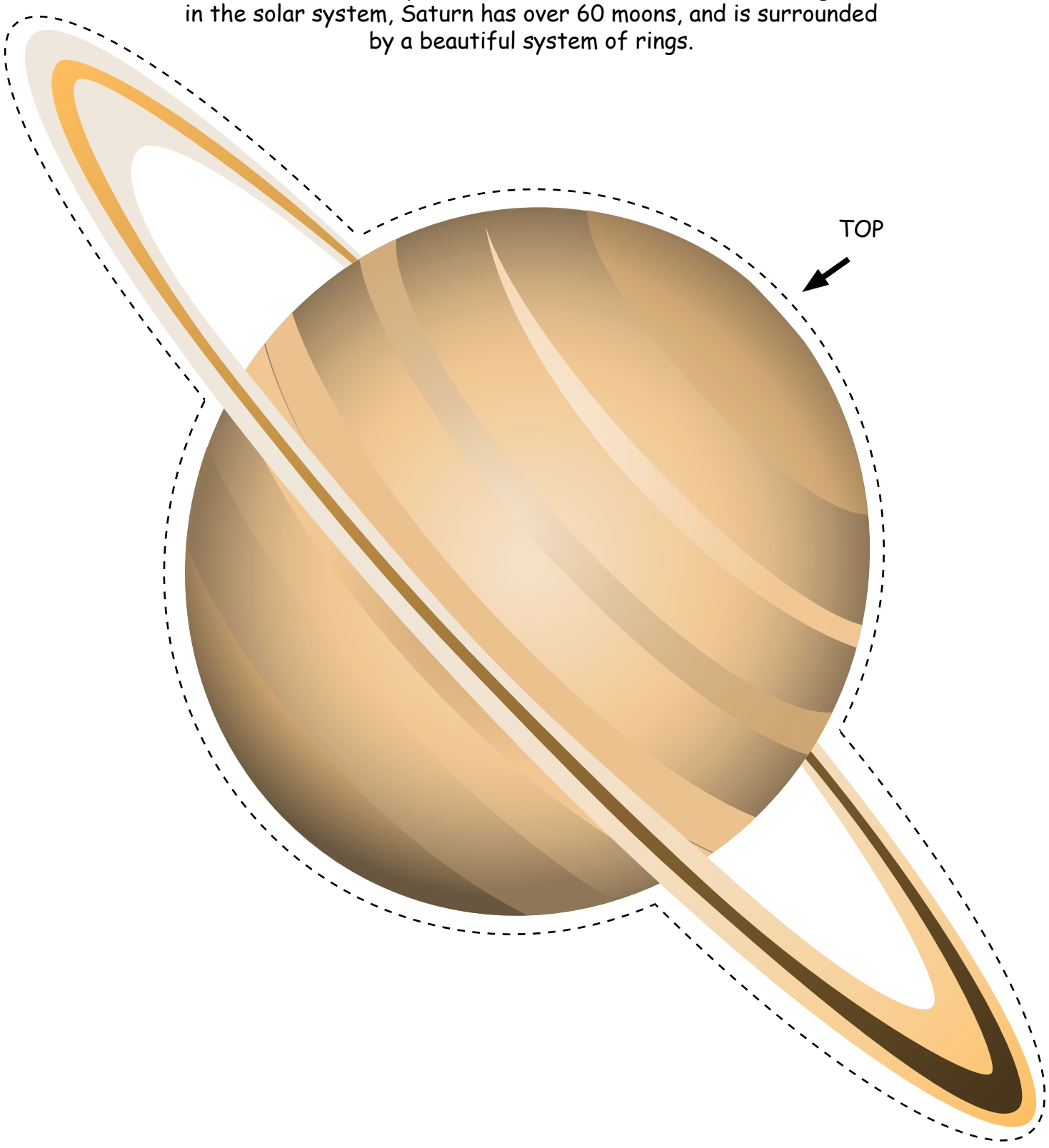
Jupiter is the largest planet in the solar system, and the fifth closest planet to our sun. If you weigh 100 pounds on Earth, you would weigh 264 pounds on Jupiter. Jupiter rotates faster than any other planet. It rotates so quickly that the days are only 10 hours long. The great red spot on Jupiter is a storm that has been going on for over 300 years.



Make a Solar System Mobile

Saturn

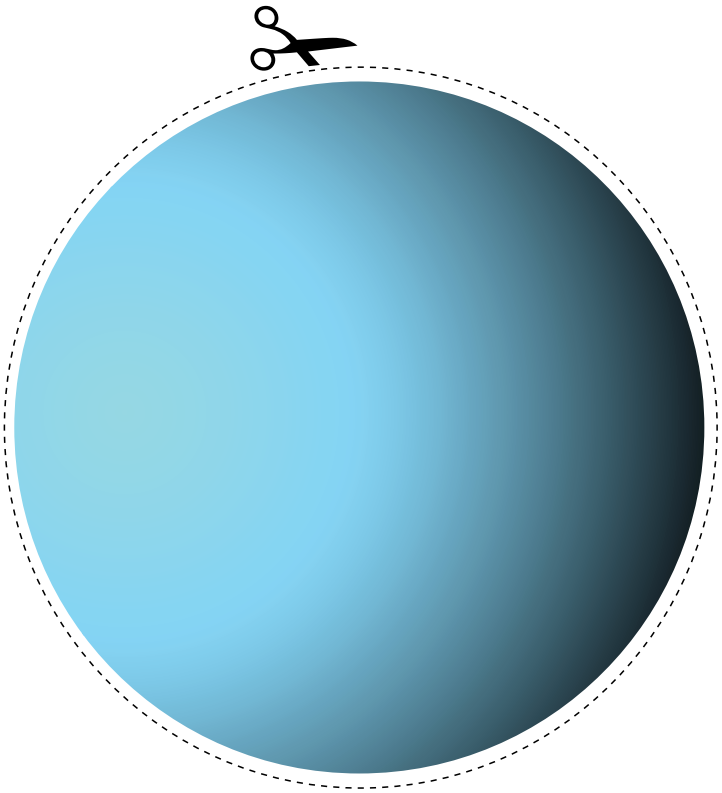
Saturn is the sixth planet from the sun and the second largest in the solar system, Saturn has over 60 moons, and is surrounded by a beautiful system of rings.



Make a Solar System Mobile

Uranus

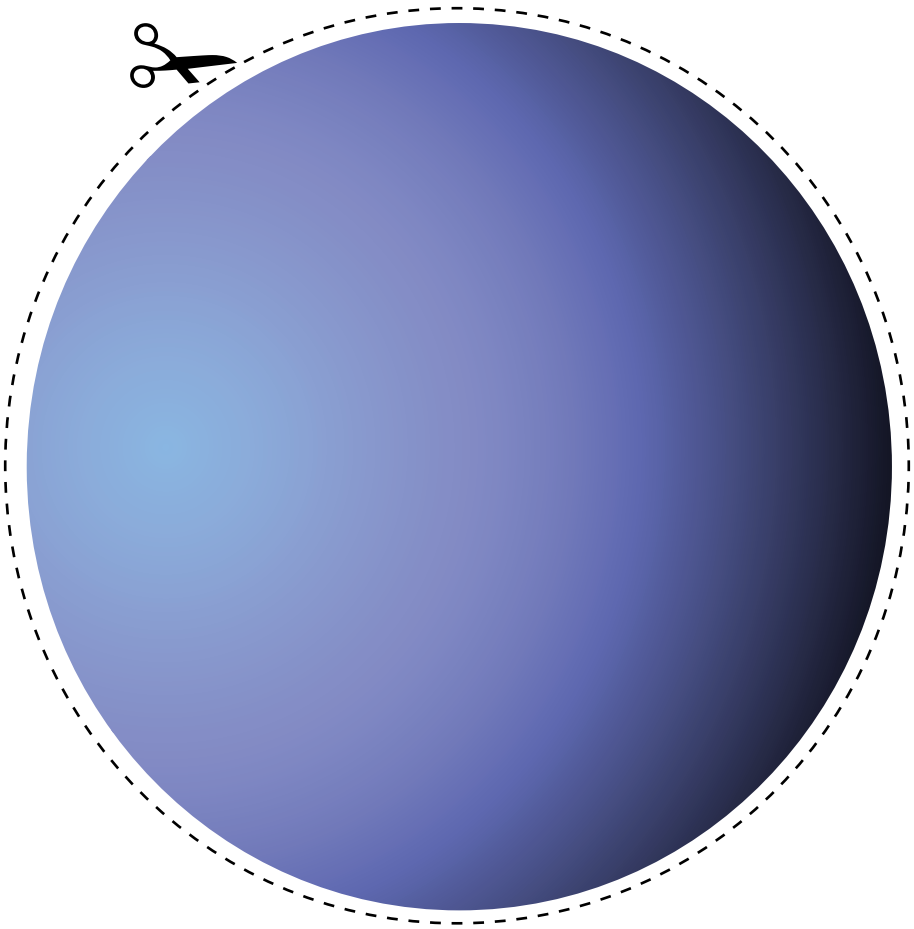
Uranus is the seventh planet from the sun. Because of the strange way it spins, nights on some parts of Uranus can last for more than 40 years. Uranus is a very cold planet. It is made up of rock and ice and has a large rocky core. It has the nickname "Ice Giant." It is possible there are diamonds on the surface of this planet.



Make a Solar System Mobile

Neptune

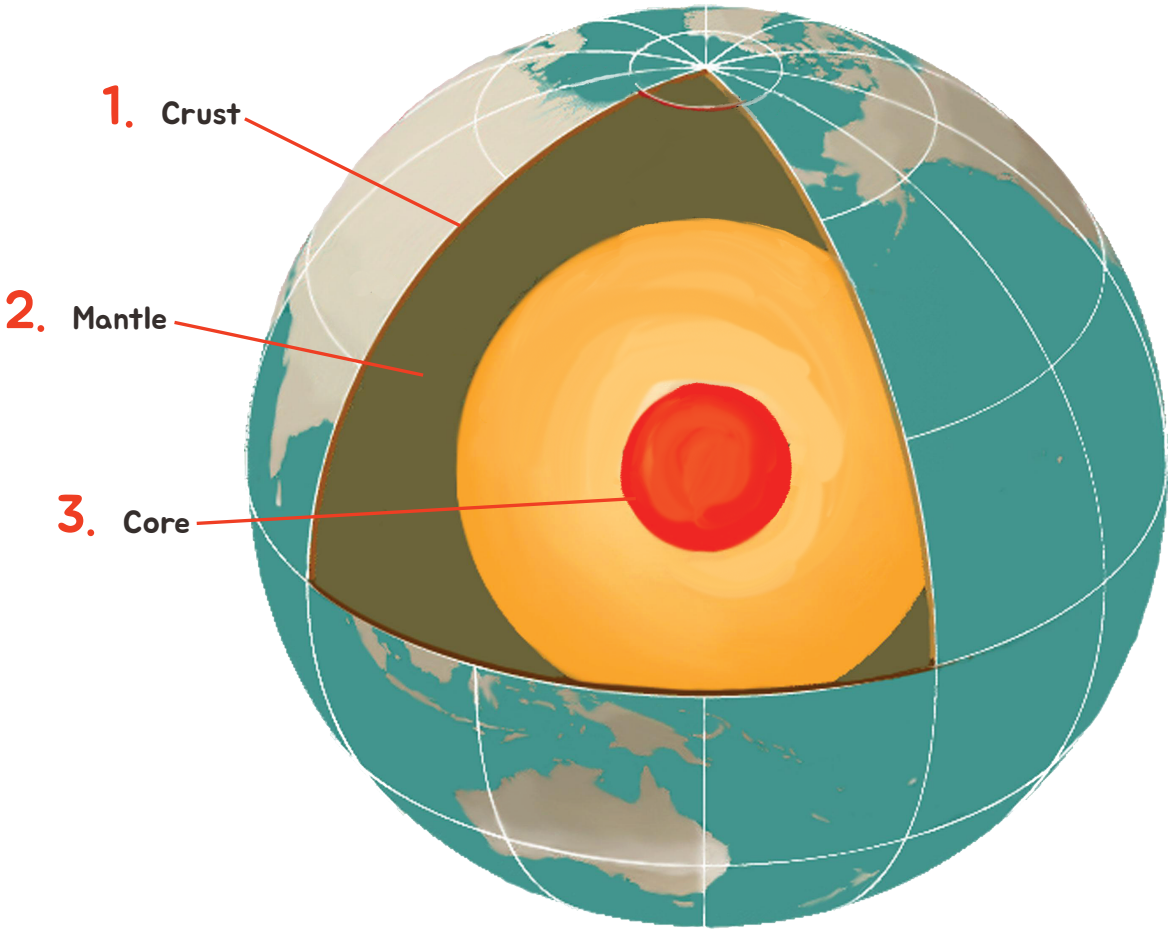
Neptune is the eighth planet. It is the farthest planet from the sun.
It is the fourth largest planet. The interior of Neptune,
like that of Uranus, is made mostly of ice and rock.
A gas called methane causes Neptune to look blue.



Name _____ Date _____

Layers of the Earth

Can you name of each of earth's layers? Fill in the name of each layer of the earth, then number each description in the boxes provided.



☐ The _____ is made of molten metal.

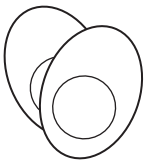
☐ The _____ is where we live, and where the oceans are.

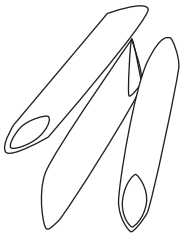
☐ The _____ is where most of the earth's heat is stored.

Healthy Eating:
Food Pyramid Match-Up

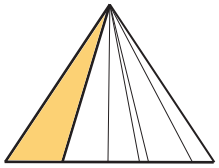
Eating healthy foods gives you more energy to play and can even help you do better in school! Below are pictures of food pyramids: diagrams that tell us the foods that are healthy to eat.

MATCH each food to its CORRECT place in the food pyramid.

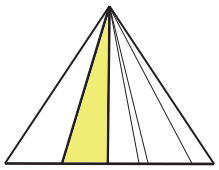




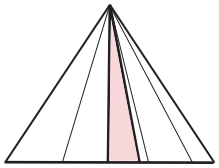
GRAINS



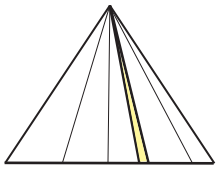
VEGETABLES



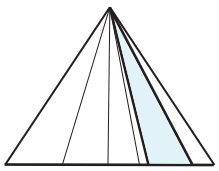
FRUITS



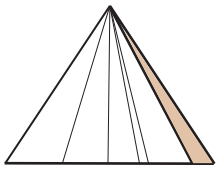
OILS



DAIRY



MEAT & BEANS (eggs included)



Answer Sheets

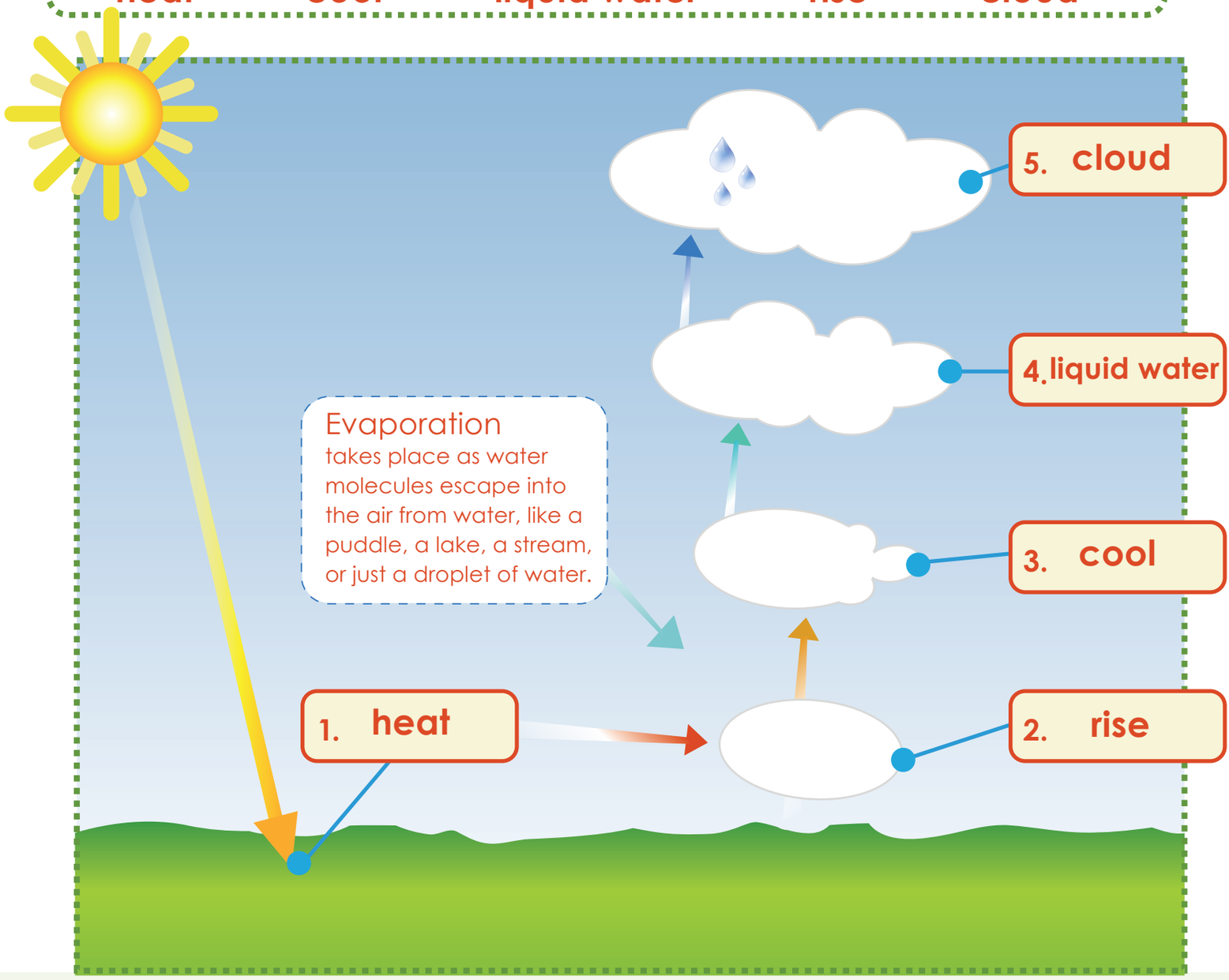
Our 10 Best Second Grade Science Printables

How Do Clouds Form?
Vertebrates and Invertebrates
Life Science Learning: Life Cycle of a Frog
Science Vocabulary Word Search
Simple Machines
Layers of the Earth

How Do Clouds Form?

Use the words below and clues at the bottom to fill in the labels that describe how a cloud is formed.

heat cool liquid water rise cloud



1. Rays of the sun _____heat_____ up the moisture in the air close to the ground.
2. As these pockets of air are heated they begin to _____rise_____ .
3. As these heated pockets of air rise they_____cool_____.
4. As it cools, the water vapor turns to tiny droplets of _____liquid water_____ .
5. The droplets crowd together and form a _____cloud_____.

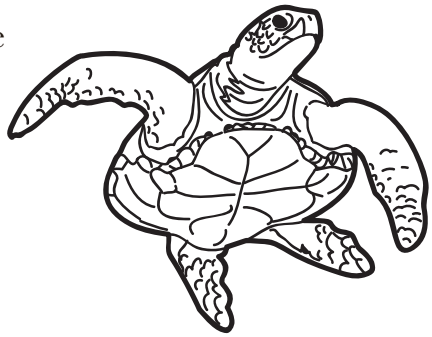
Name ANSWER SHEET Date

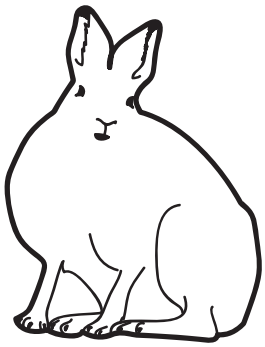
IDENTIFY INVERTEBRATES AND VERTEBRATES

Many different animals share our planet with us. Many are alike, and many are different. Scientists **classify** animals based on their similarities. One way scientists group animals is whether or not those animals have a backbone.

Some animals, like dogs, cats, birds, lizards, fish, and even humans have backbones - Scientists classify backboned animals as **vertebrate**.

Other animals, such as squid, worms, bugs, and clams do not have backbones. Scientists call these animals **invertebrates.**





Choose **five animals** from the list below. Write the animal's name, whether it is a vertebrate or invertebrate, and two important traits in the spreadsheet. An example has been provided for you.

Scorpion **Fox** **Octopus** **Snail** ~~**Rabbit**~~ **Wolf** **Deer**

T-Rex **Spider** **Fish** **Jellyfish** **Turtle** **Beetle** **Hawk**

Answers may vary

Animal	Vertebrate / Invertebrate	Two important traits
Rabbit	Vertebrate	1. A rabbit has long ears. 2. A rabbit is a mammal.
Spider	Invertebrate	1. Spiders have eight legs. 2. Spiders are not insects.
Turtle	Vertebrate	1. Turtles have shells. 2. Turtles are reptiles.
Octopus	Invertebrate	1. Octopi have eight legs. 2. Octopi live in the water.
Hawk	Vertebrate	1. Hawks have wings. 2. Hawks can fly.
Deer	Vertebrate	1. Male deer have antlers. 2. Deer have good eyesight.
Beetle	Invertebrate	1. Beetles are insects. 2. Beetles have wings.

Name ANSWER SHEET Date

IDENTIFY INVERTEBRATES AND VERTEBRATES

Vertebrates

Fish
Fox
Rabbit
Wolf
Deer
T-Rex
Hawk
Turtle

Invertebrates

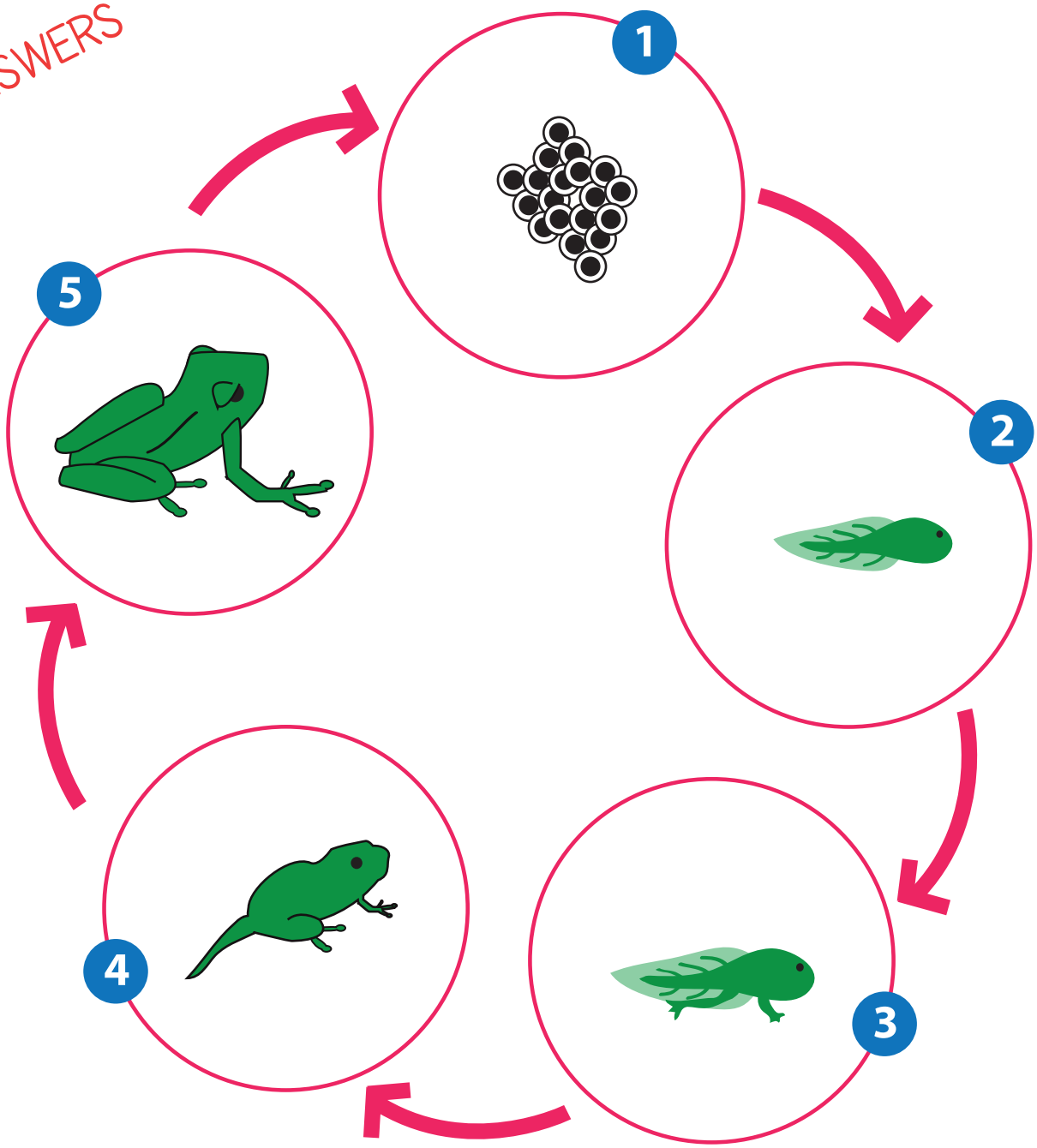
Spider
Jellyfish
Beetle
Scorpion
Snail
Octopus

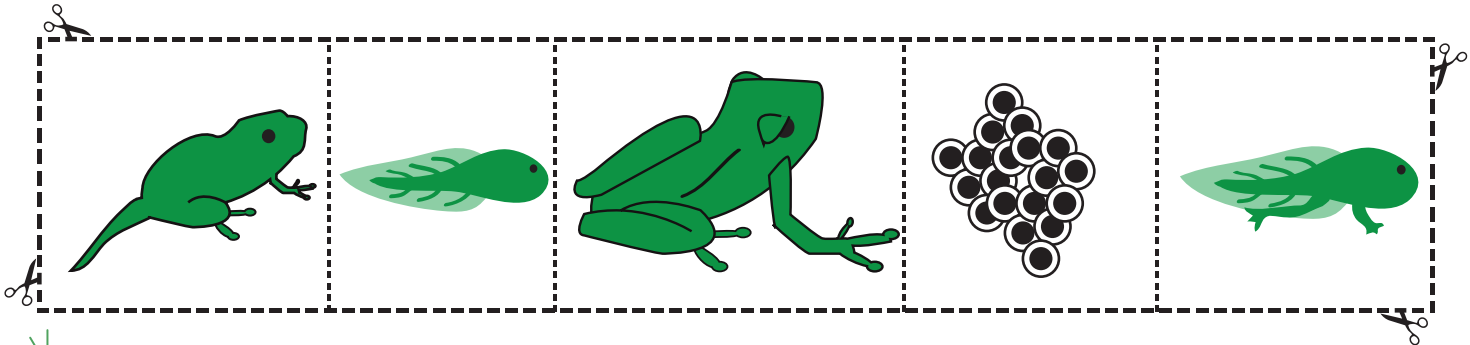
Science
Life Science

Life Cycle of a Frog

Cut out the pictures and paste them in the correct order on the life cycle chart.
Then order the sentences on the page 2 by labeling them with the correct number.

ANSWERS





Science
Life Science

Life Cycle of a Frog

Put the sentences in order by labeling them with the correct number according to a frog's life cycle.

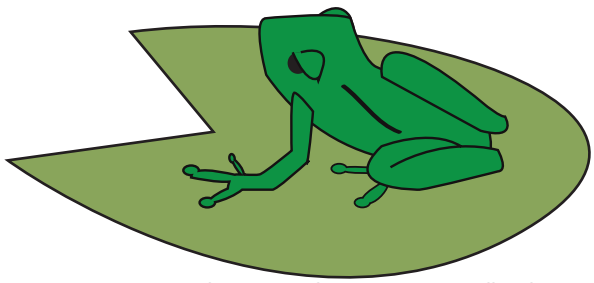
1 The cell inside the egg splits into two, then into four.
This process continues until there are many cells in the egg.
These cells develop into an embryo with living organs.
After about 21 days the egg hatches.

4 The tadpole now looks more like a frog with a very long tail.
It starts to eat insects. Over the next 12 weeks the tadpole's tail shortens and at the end it becomes an adult frog and leaves the water.

3 The tadpole gets stronger over the next 6-9 weeks.
It grows arms and legs, and its body gets longer.

5 Now the frog is fully grown. Later, it will return to the water to lay eggs.

2 After the egg hatches, a baby frog, or tadpole, comes out.
It has a long tail. It swims in the water and eats algae to build up strength.



Science Word Search!

ANSWERS

Find each of the words in the box below. Words may go across, down, or diagonally.

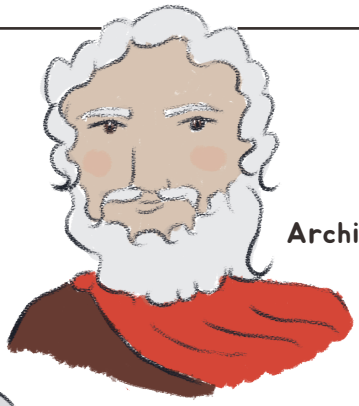
ATTRACT	CONSTELLATION	CRATER	EARTH
GAS	GENETICS	GLACIER	GRAVITY
LARVA	LIQUID	PHOTOSYNTHESIS	
REPEL	SKELETON	SOLID	

G	A	S	Y	C	Z	Z	K	D	P	G	A	R	I
E	G	V	R	O	Z	I	P	Y	H	A	E	B	H
N	R	C	E	N	A	H	S	N	O	T	A	L	H
F	A	K	P	S	Z	G	O	H	T	T	R	A	Y
H	V	G	E	T	O	T	L	F	O	R	T	R	F
X	I	C	L	E	E	C	I	U	S	A	H	V	X
G	T	L	D	L	C	I	D	L	Y	C	U	A	S
L	Y	X	E	L	V	R	A	T	N	T	T	C	T
A	K	K	L	A	X	D	A	W	T	Z	I	O	P
C	S	C	I	T	H	V	G	T	H	T	V	I	A
I	B	L	Q	I	W	Y	X	P	E	S	A	O	A
E	L	F	U	O	F	L	M	N	S	R	O	S	F
R	H	I	I	N	X	Q	E	W	I	X	S	S	L
X	B	E	D	G	S	G	F	L	S	X	M	P	L

Name _____ Date _____

Answers

Simple Machines



Archimedes

In ancient Greece a scientist named Archimedes came up with the idea that there are simple machines which can be used to make work easier. These machines could change the direction of movement and could lessen the amount of work needed for moving things. Later, scientists and artists like Galileo and Da Vinci advanced this idea and came up with the six simple machines we have today:

Galileo

da Vinci

pulley
screw
wheel and axle
wedge
lever
inclined plane

Almost all modern machines use one or more of these six simple machines.

Directions: Read the descriptions of the simple machines and match them to the correct image.

1. A **pulley** uses grooved wheels and ropes/chains to raise, lower, or move a load by pulling on the rope. [b]

2. A **wheel**, when combined with a rod through its center as an **axle**, can be used to lift or move loads. [f]

3. A **wedge** is an object with a slanted edge which is sharp. It can be used to cut or push two objects apart. [a]

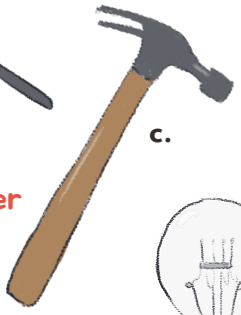
4. A **lever** is a bar that rests on a support, called a fulcrum, and can be used to lift or move loads. [c]

5. An **inclined plane** is any slanted surface that is used to connect a lower surface to a higher one. Heavy objects slide up the surface. [d]

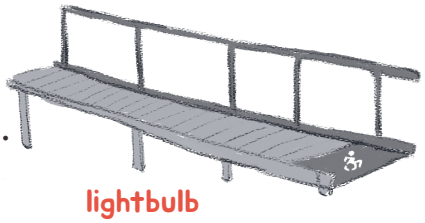
6. Screws are special kinds of inclined planes that are wrapped around a pole, which holds things together or lifts things. [e]

a. scissors

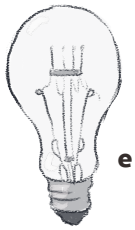
b. flag pole



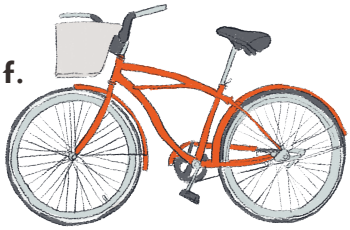
c. hammer



d. lightbulb



e. lightbulb



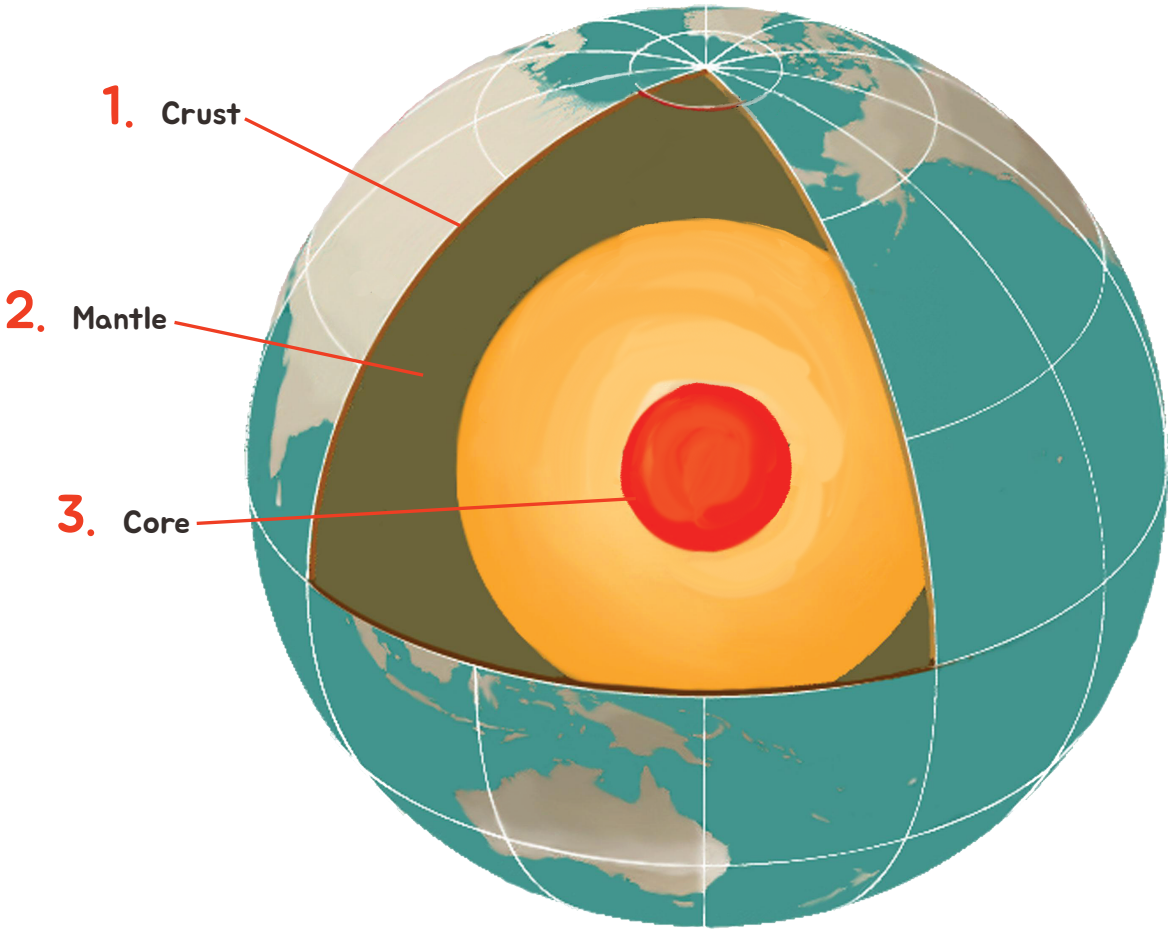
f. bicycle

Name _____ Date _____

Layers of the Earth

Answers

Can you name of each of earth's layers? Fill in the name of each layer of the earth, then number each description in the boxes provided.



3 The core is made of molten metal.

1 The crust is where we live, and where the oceans are.

2 The mantle is where most of the earth's heat is stored.