

Let's Do **SCIENCE**

Grade 3 Gamebook



Let's Do SCIENCE

Grade 3 Gamebook

Name: _____
Class: _____

EDUCATION



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Let`s Do Science Gamebook **Grade 3**

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Gamebook is a supplementary material to be used in the classroom and at home to diversify the learning routine, provide students with engaging materials that would help them to improve not only their academic, but also cognitive and social skills.

Games offered in this book allow children to use their creativity while:

- ✓ developing dexterity,
- ✓ training memory and attention span,
- ✓ developing cognitive and emotional strength,
- ✓ learning the importance of teamwork and collaboration,
- ✓ improving cognitive and interpersonal skills.



- **Cut out the vocabulary cards.**
- **Check how many words you remember.**
- **At the back of each card write down any information you find to be important about this word.**
- **Compare your notes with your friends`.**
- **Play with your friends.**
- **Mix all the cards together.**
- **Draw (take) a card. Read the word and try to guess what is written at the back of the card.**
- **Read what is written at the back of a card and try to guess the word.**
- *You can make up your own rules. Write them down here.*



Organism

Respond

Reproduce

Cells

Photosynthesis

Carbon
Dioxide

Oxygen

Fungi



Microorganism

Plants

Animals

Water

Cells

Movement

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Growth

Seeding



Microscope

Gills

Lungs

Regal
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Salmon

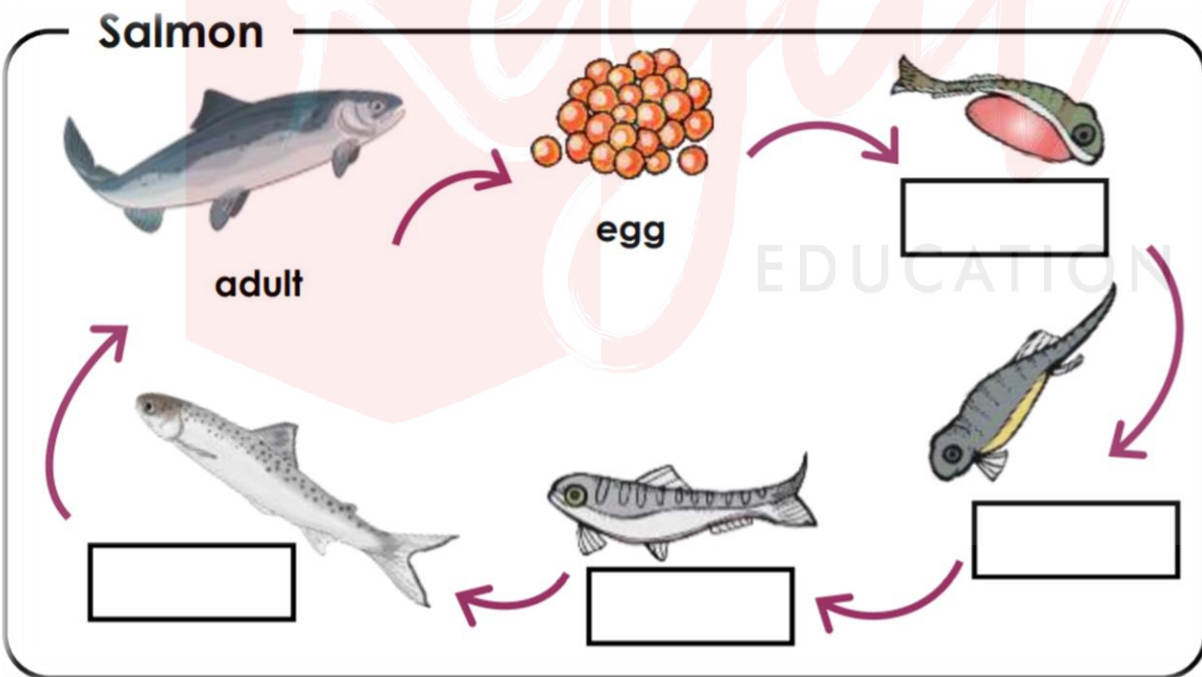
✓ When a young salmon develops stripes across his back, it's called a parr.

✓ An alevin is a newly spawned salmon.

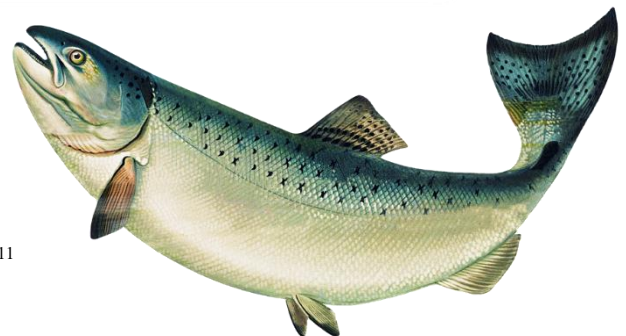
✓ When salmon leave their nest, they are called fry.

✓ Smolts are salmon that are finally ready to go out to the sea.

Label the diagram, based on the information you have read.



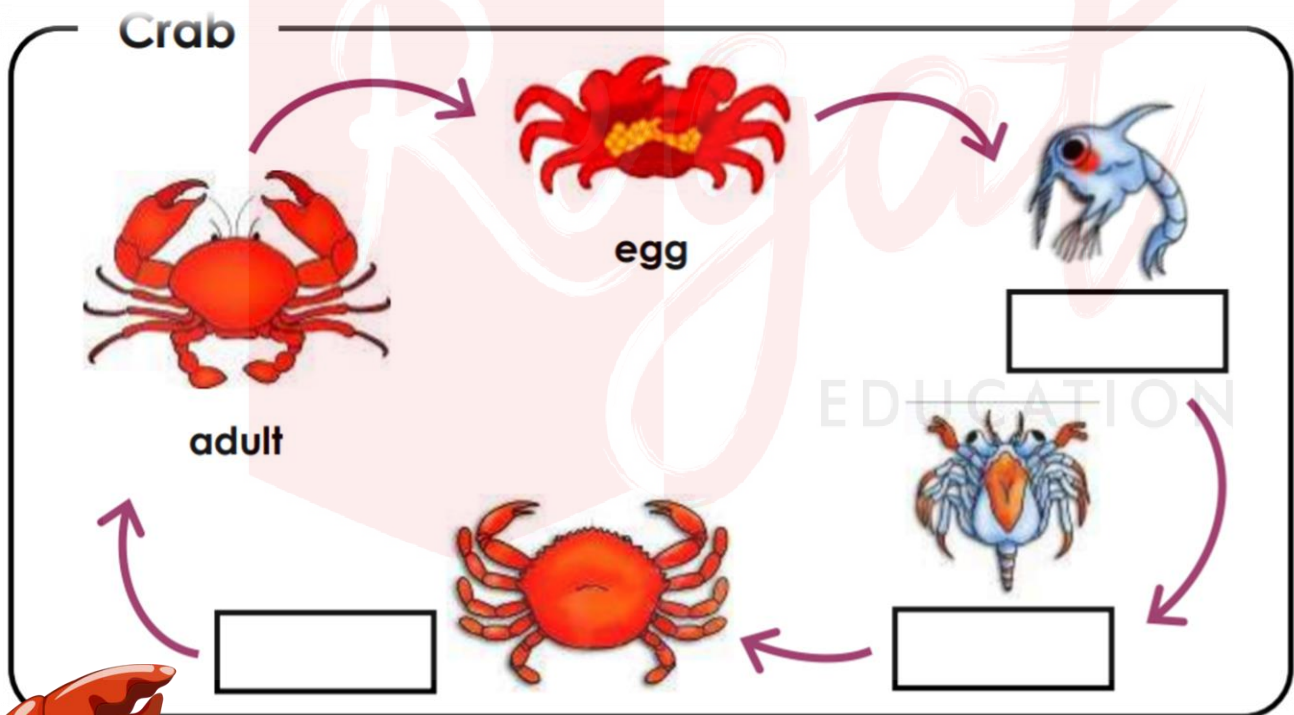
Compare your answers with your friends'.



Crabs

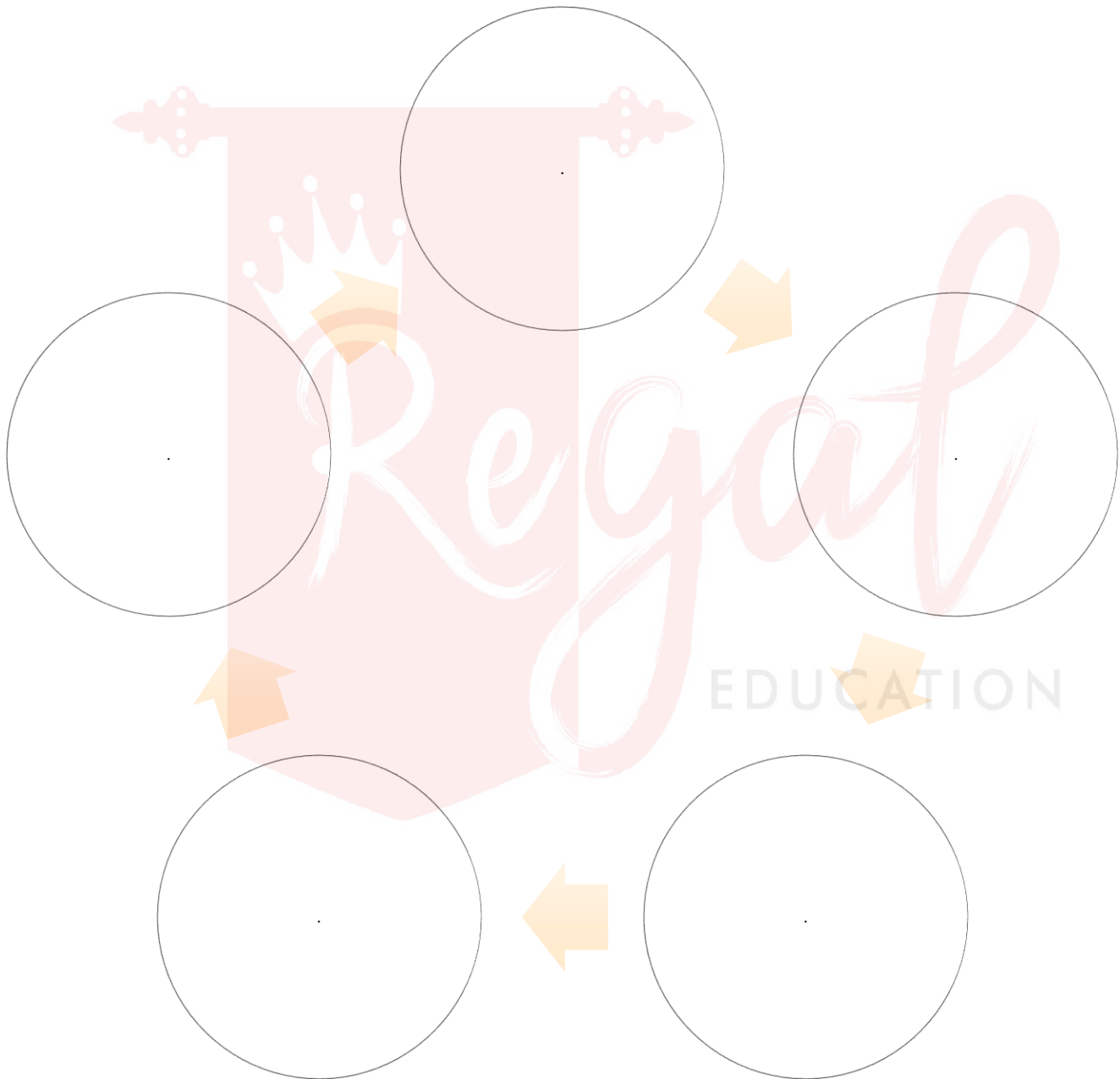
- ✓ A megalops is a crab's first stage after it is no longer a larva.
- ✓ A zoea is a type of larva which occurs after crab eggs hatch.
- ✓ Juvenile crabs can be 4 inches long and live in shallow water.

Label the diagram, based on the information you have read.



Compare your answers with your friends`.

Draw a diagram of development (growth) of your favorite animal or fruit/ vegetable.



To play online, scan the QR codes.



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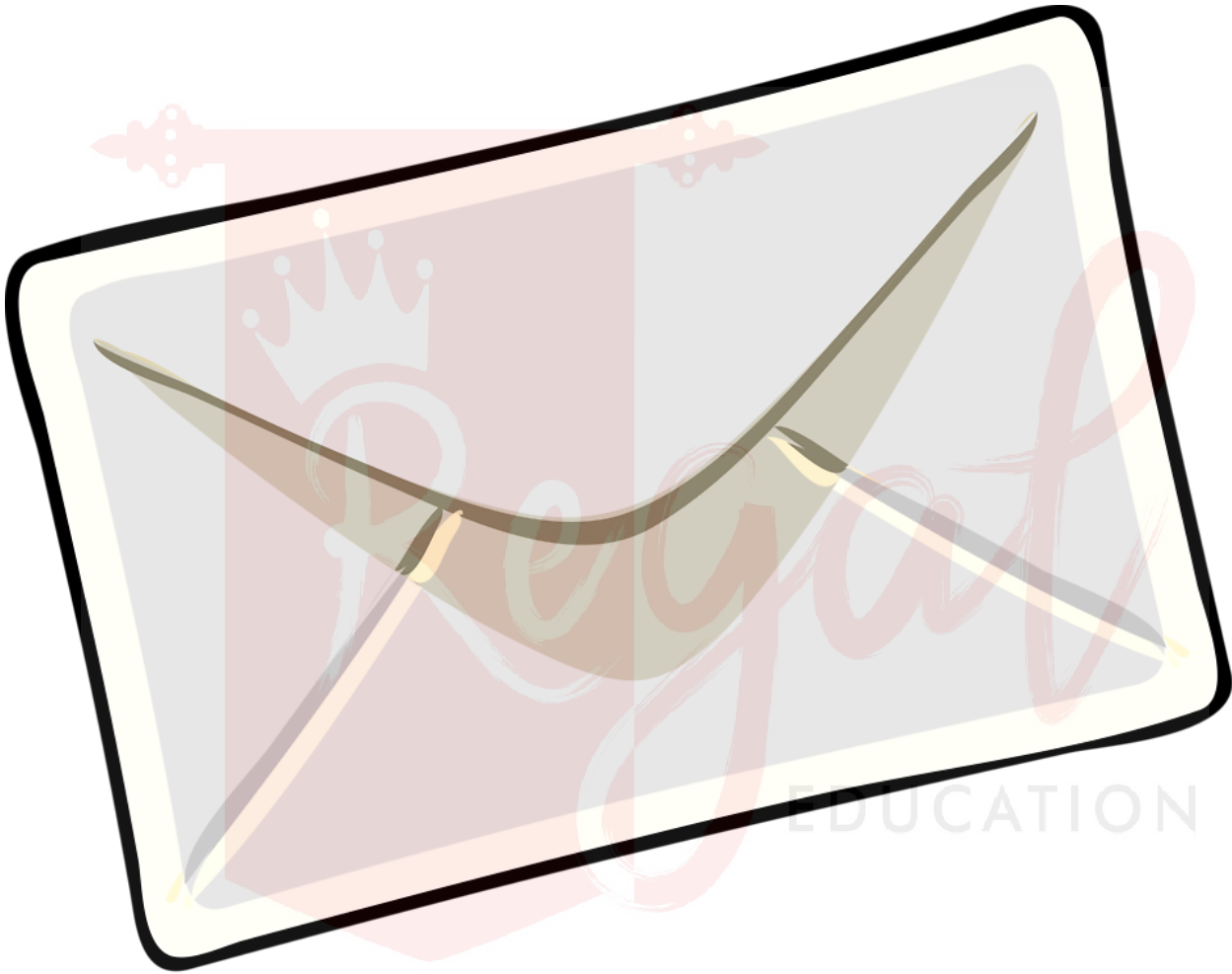


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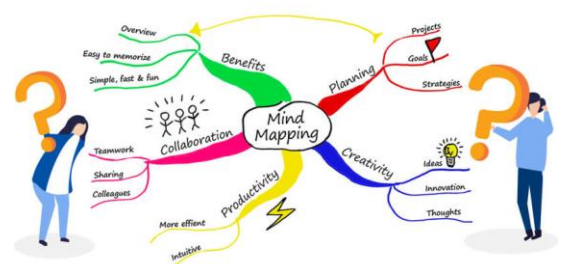
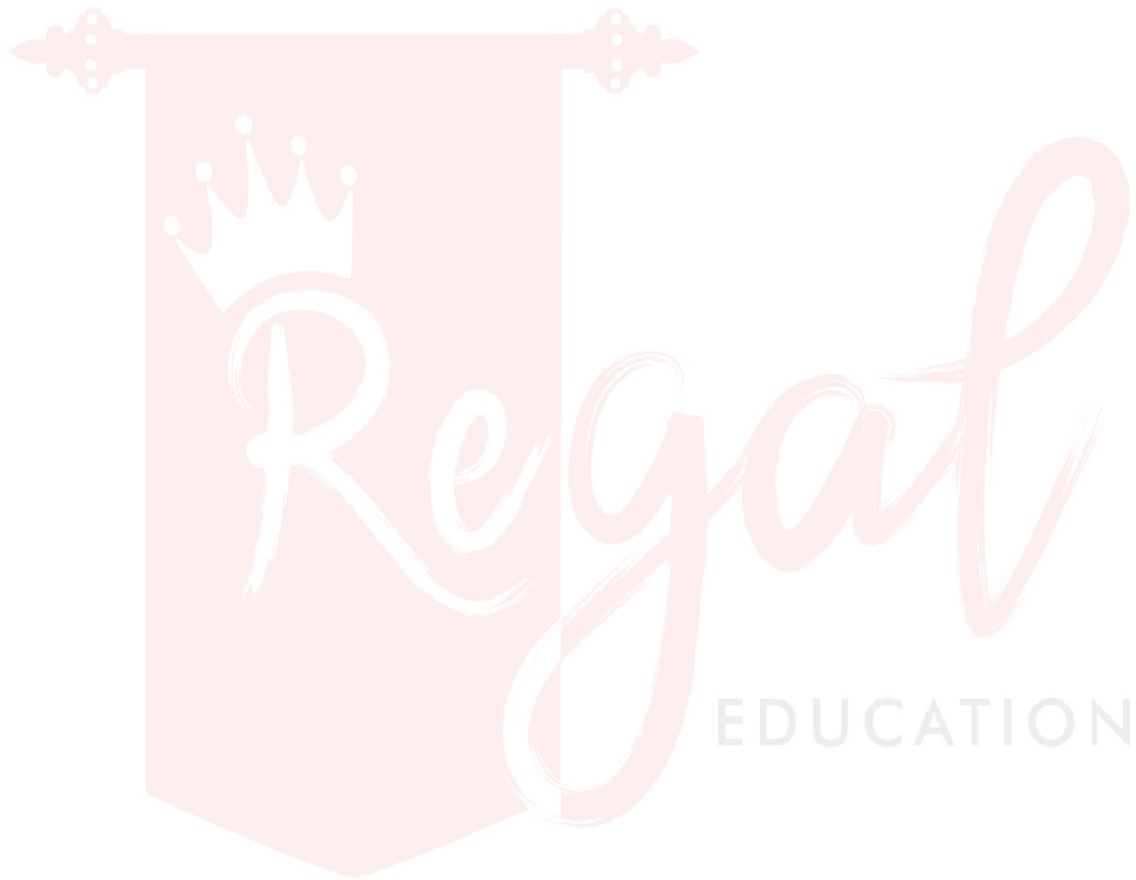


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Glue an envelope for the flashcards here.



Create a mindmap of the most important things you have learned. You can work alone or with friends. If you don't know how to make a mindmap, scan the QR code.



Find and circle the words in a
WORD-SNAIL.

Unit 2

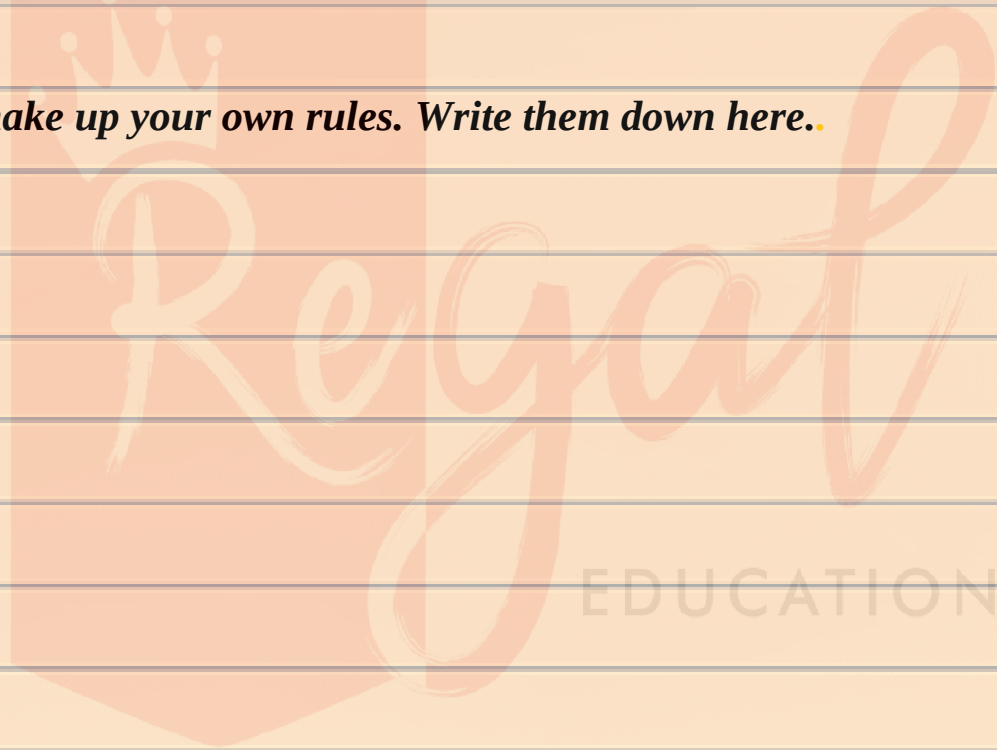


Compare your
answers with your
friends`.



- 
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 - **Read what is written at the back of a card and try to guess the word.**

You can make up your own rules. Write them down here.



Nutrient

Leaves

Root

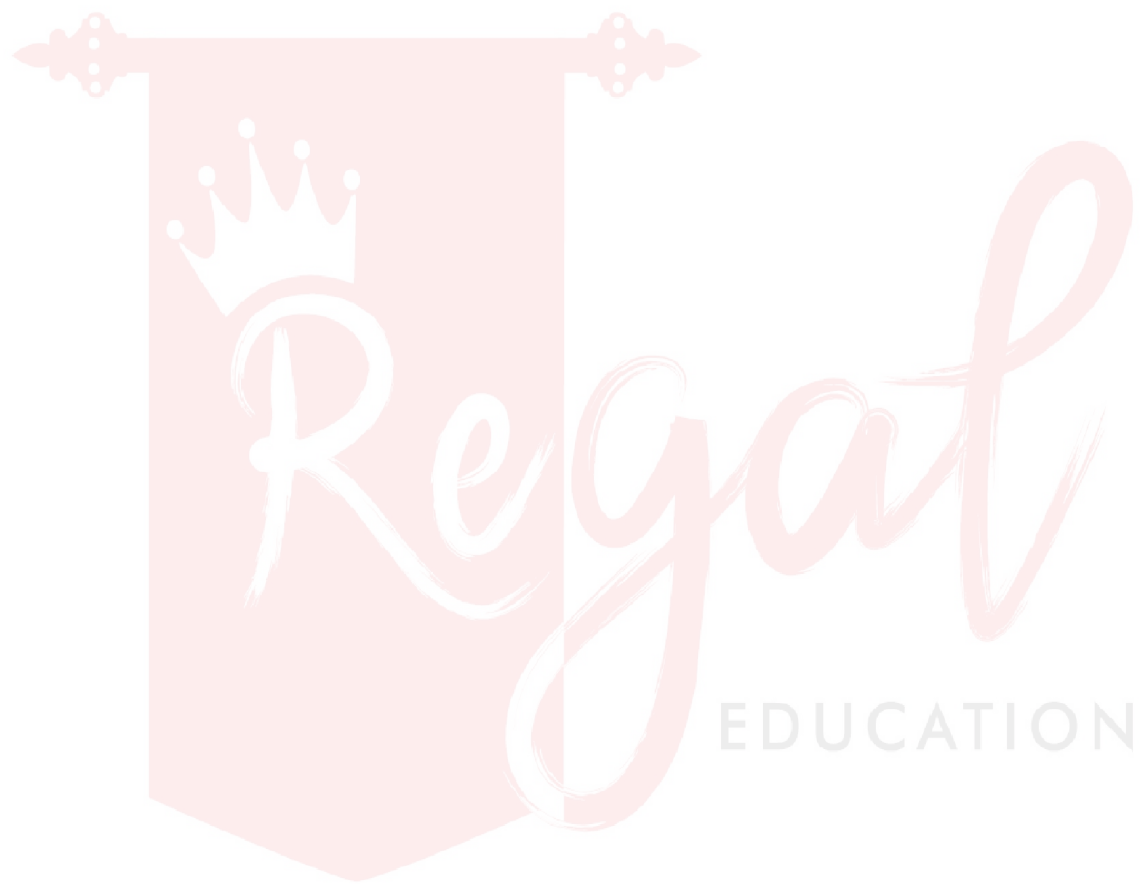
Life cycle

Flowering
plant

Germinate

Carbon
dioxide

Non-flowering
plant



Environment

Flowers

Seeds

Seeding

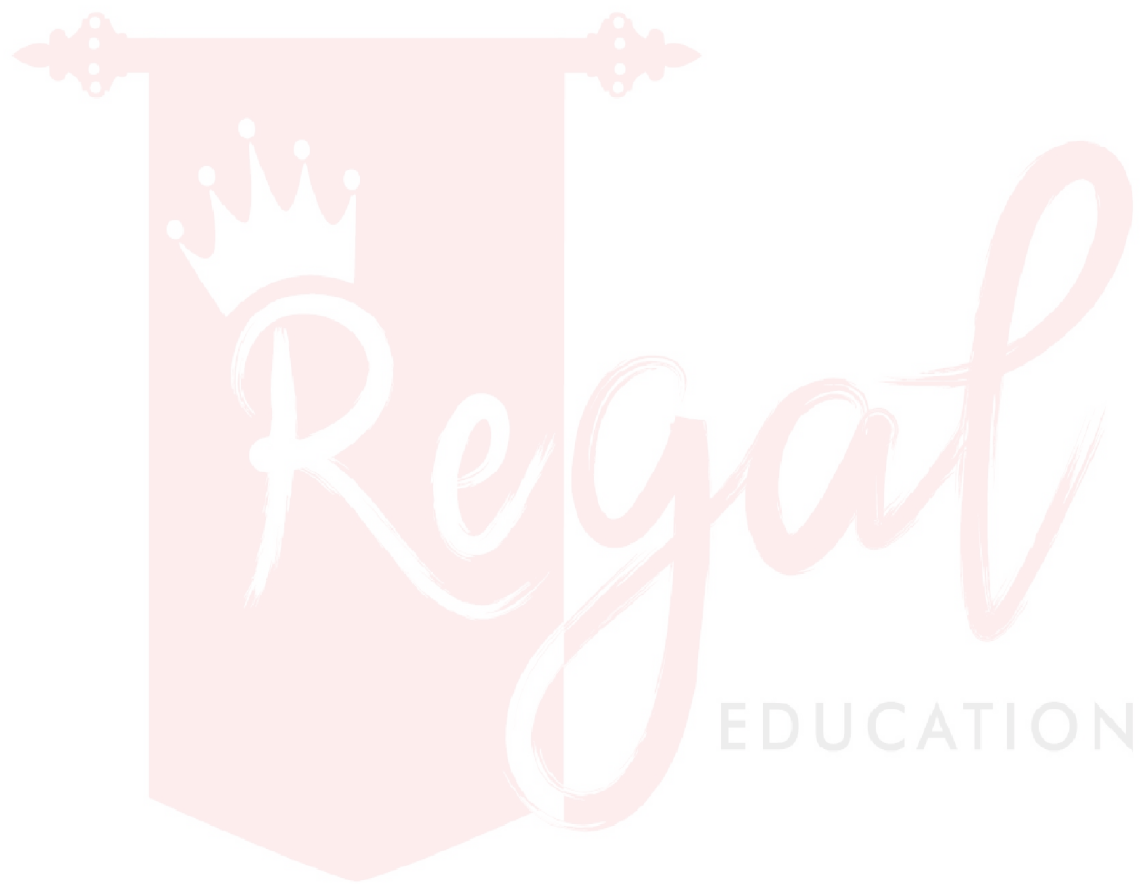
Photosynthesis

Fruits

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Stem

Pollination



Seed coat

Embryo

Radicle

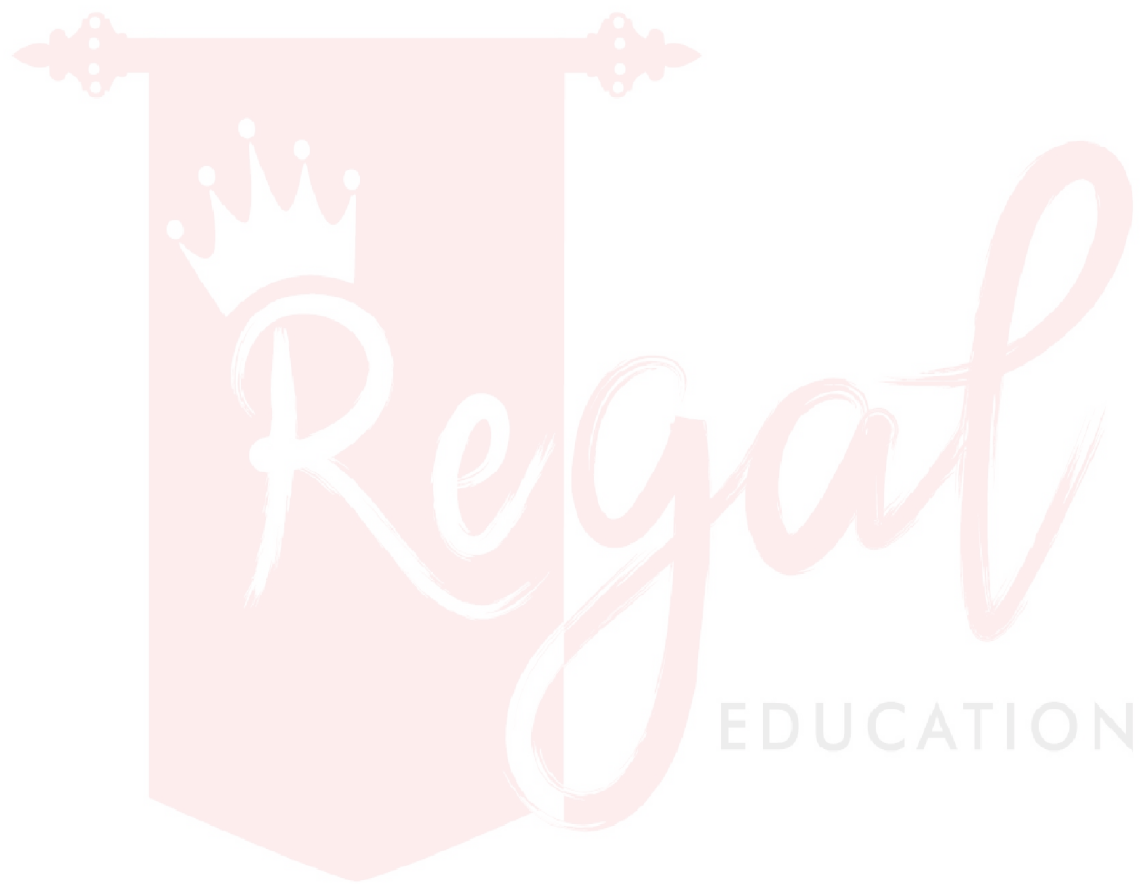
Pollen

Moss

Fern

Absorb

Root hairs



Label the orange tree lifecycle. Match the pictures and the words into the cycle.

seed

fruit

flower

young tree

mature tree



Label the diagram with the words from the box.

pollination

germination

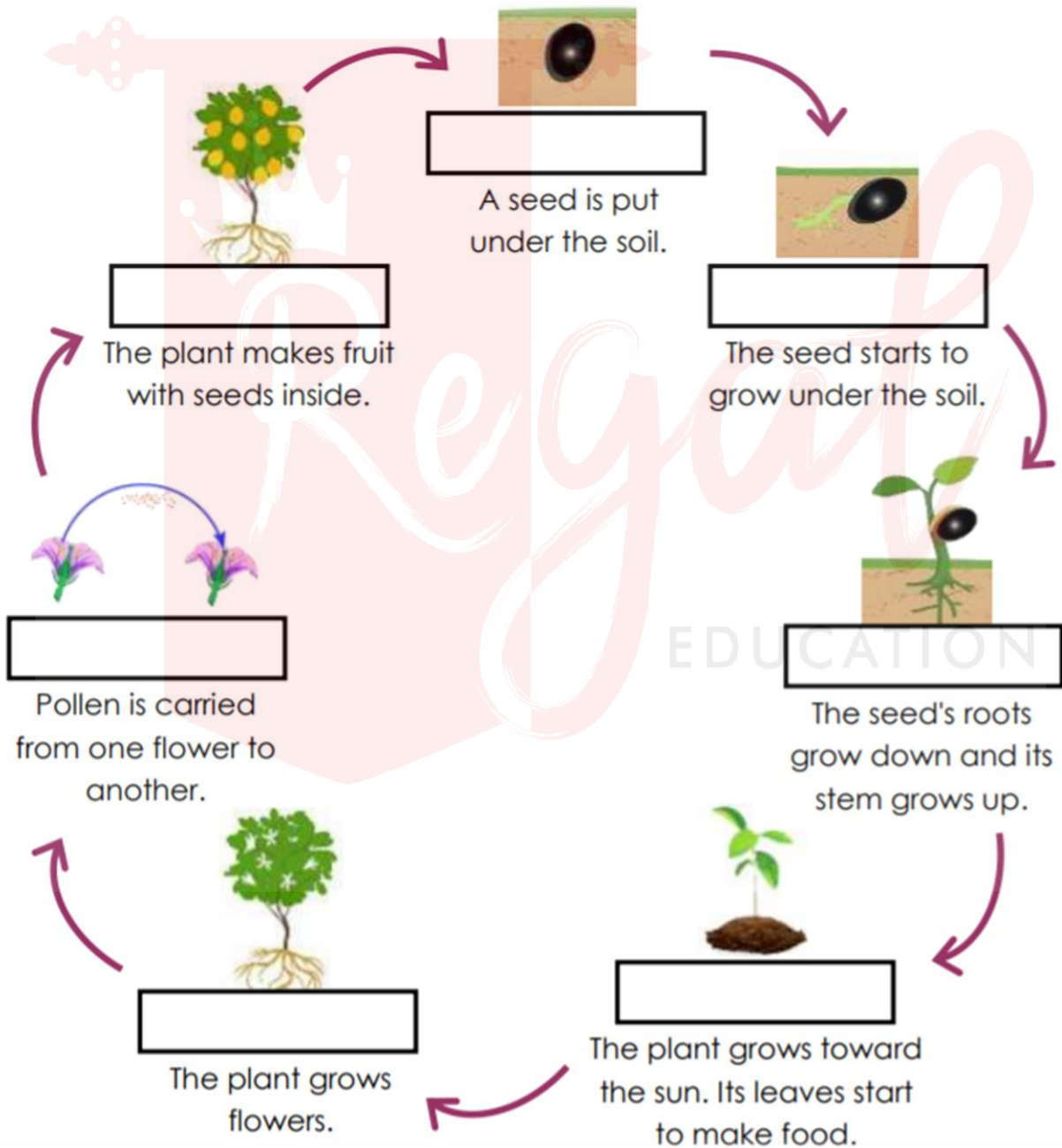
planting

seedling

sprouting

mature plant

fruiting



To play online, scan the QR codes.



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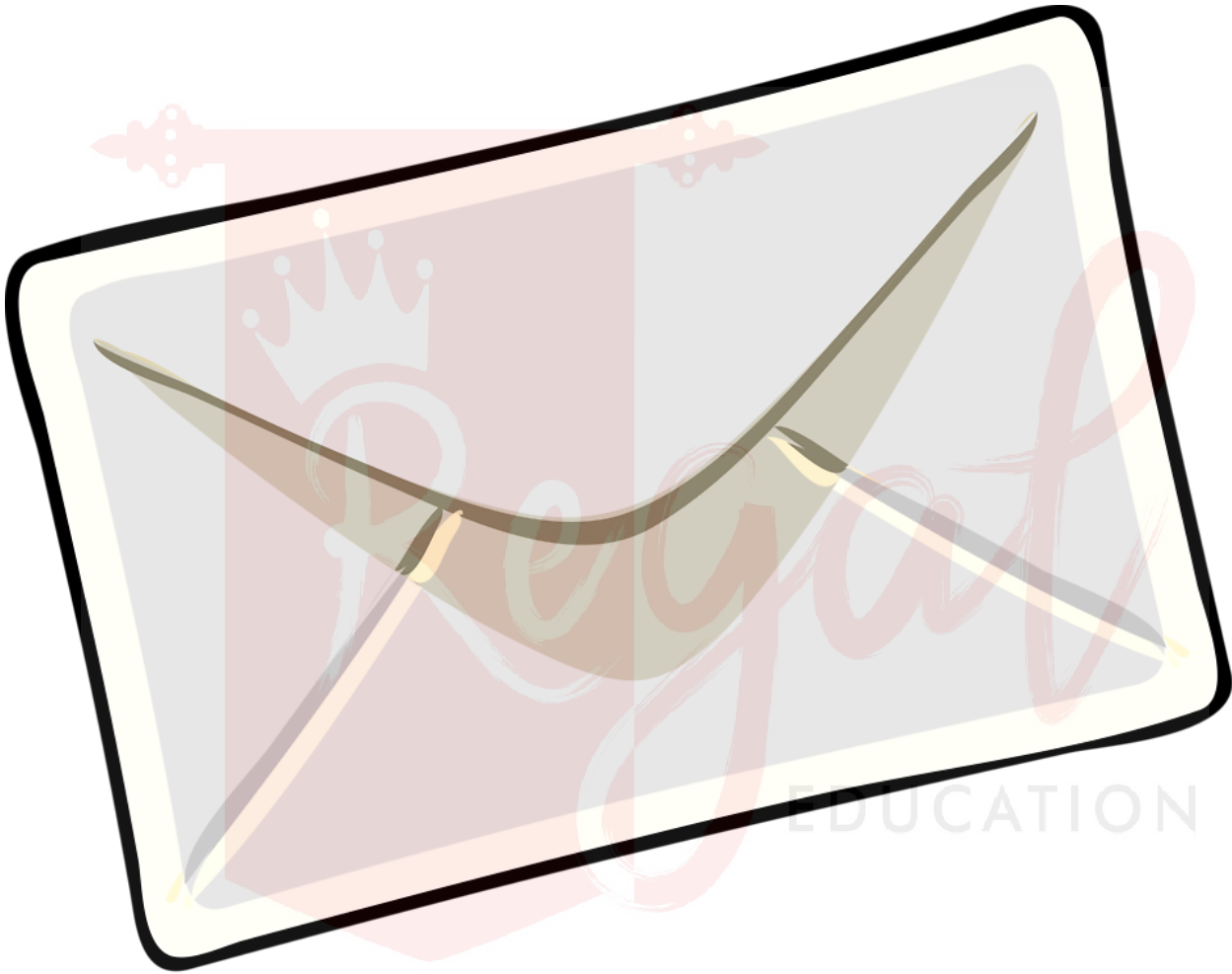


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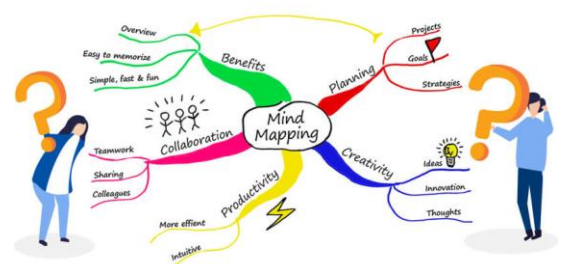
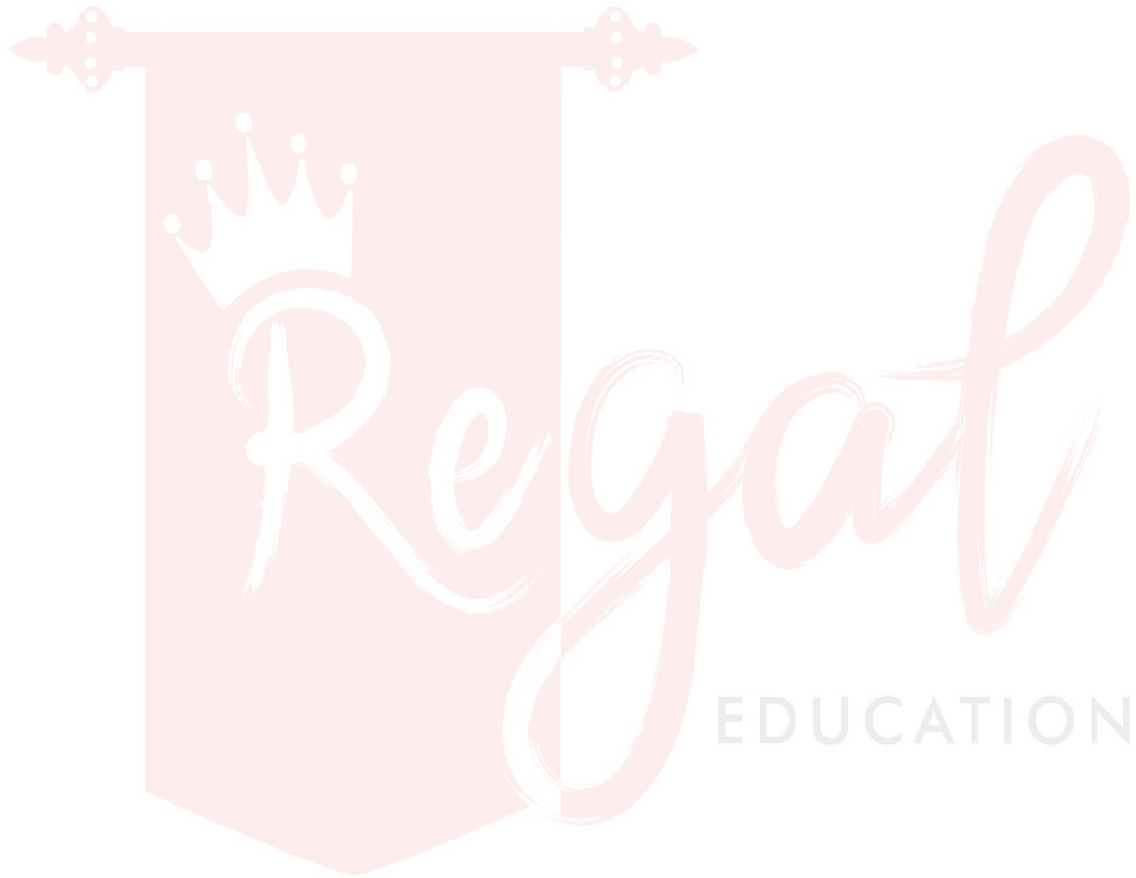


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Moth lifecycle

caterpillars

moths

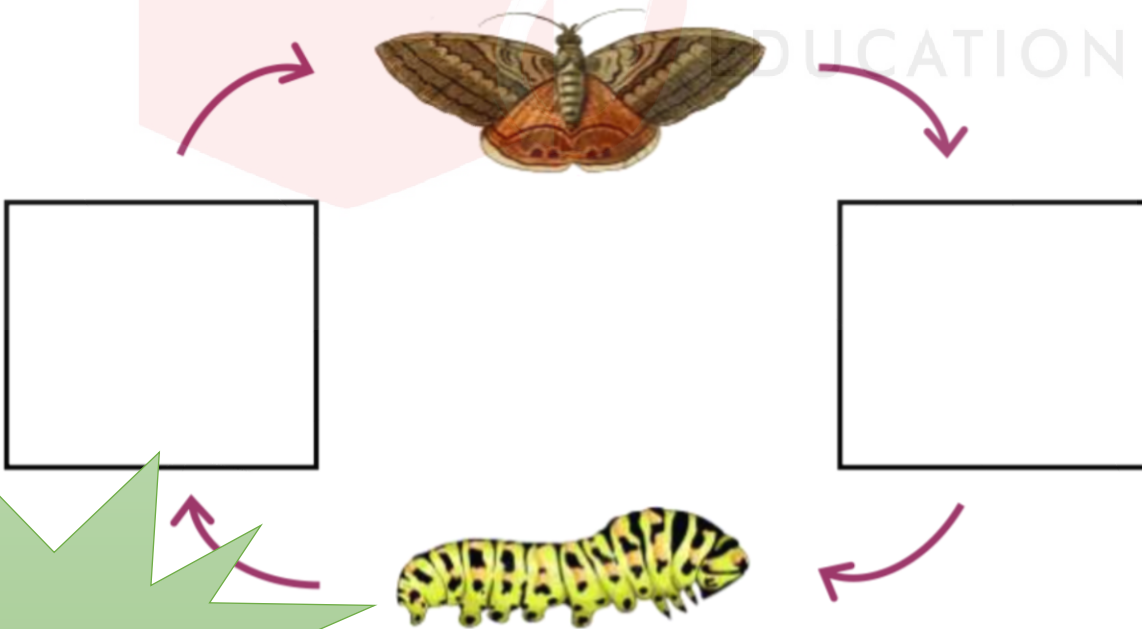
adult

pupae

Fill in with the words from the box above.

- ❖ An _____ moth lays eggs.
- ❖ _____ hatch from the eggs. They eat leaves and grow.
- ❖ The caterpillars form _____ or cocoons.
- ❖ Adult _____ emerge from the pupae.

Draw the missing stages of the moth lifecycle.



Compare your answers with your friends`.

Frog lifecycle

Fill in the text with the words from the box.

fish	frog	tails	legs	front	gills
land	cycle	immature	froglet	lungs	
	tadpoles	nutrients	adult		

An adult, female _____ lays fertilized eggs in the water. _____ hatch from the eggs. They look and swim like _____. They breathe under the water through _____. They eat plants in the water.

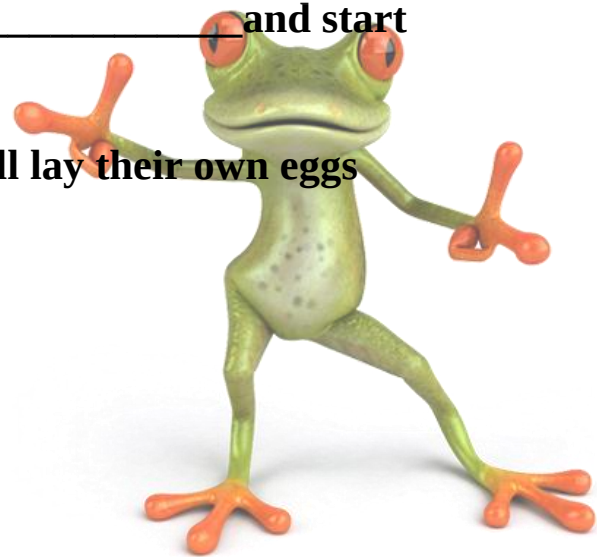
The tadpoles grow back _____ first. A tadpole with legs is called a _____.

The froglets start to grow _____ legs. Their _____ get smaller. They consume the _____ in their tails so they don't need to eat! Their _____ develop so they can breathe out of water.

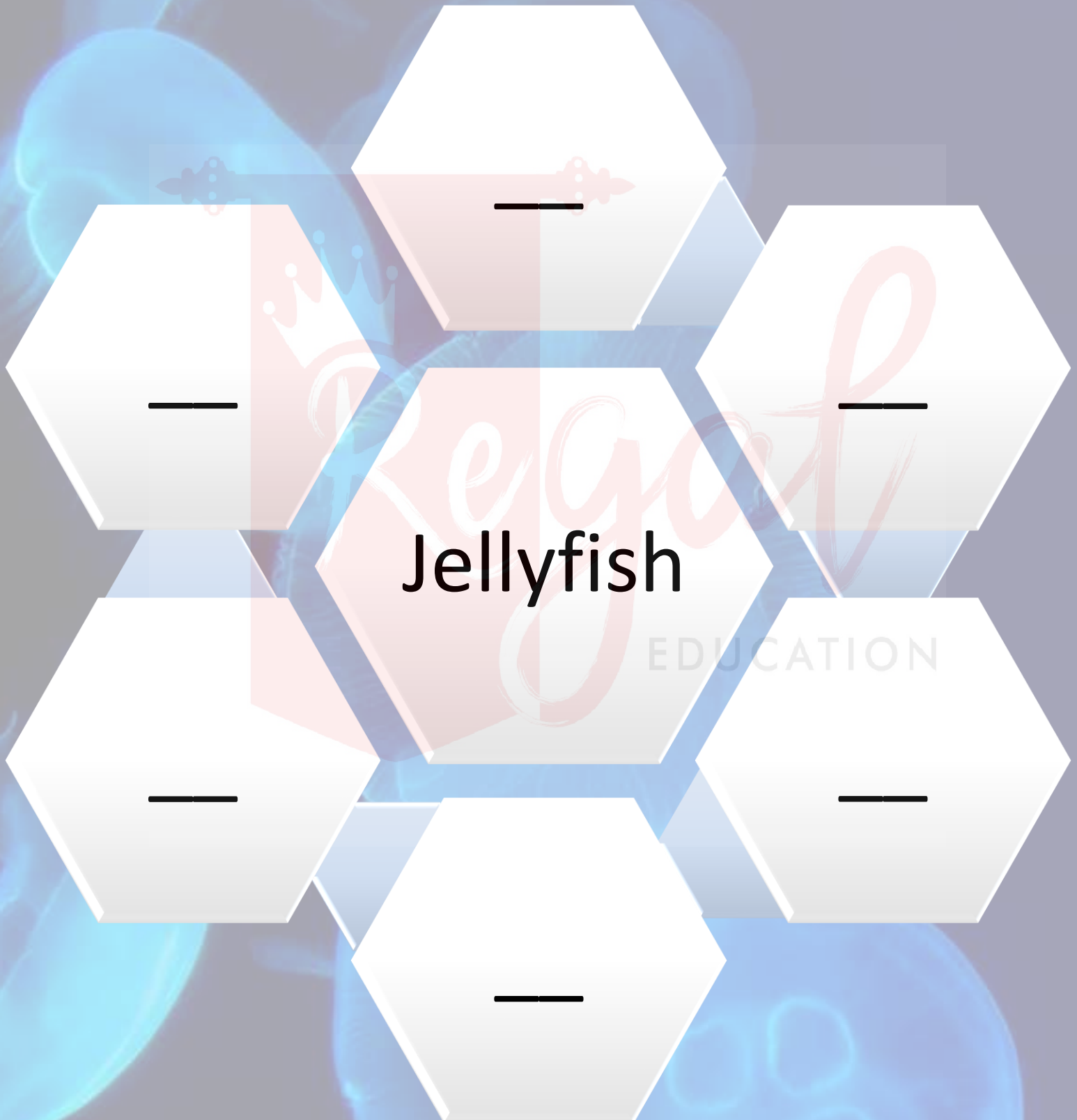
When they have just a little stub of a tail left, they are _____ frogs. They can hop out of the water and onto the _____ and start to eat insects.

They grow into _____ frogs. They will lay their own eggs and the _____ will begin again.

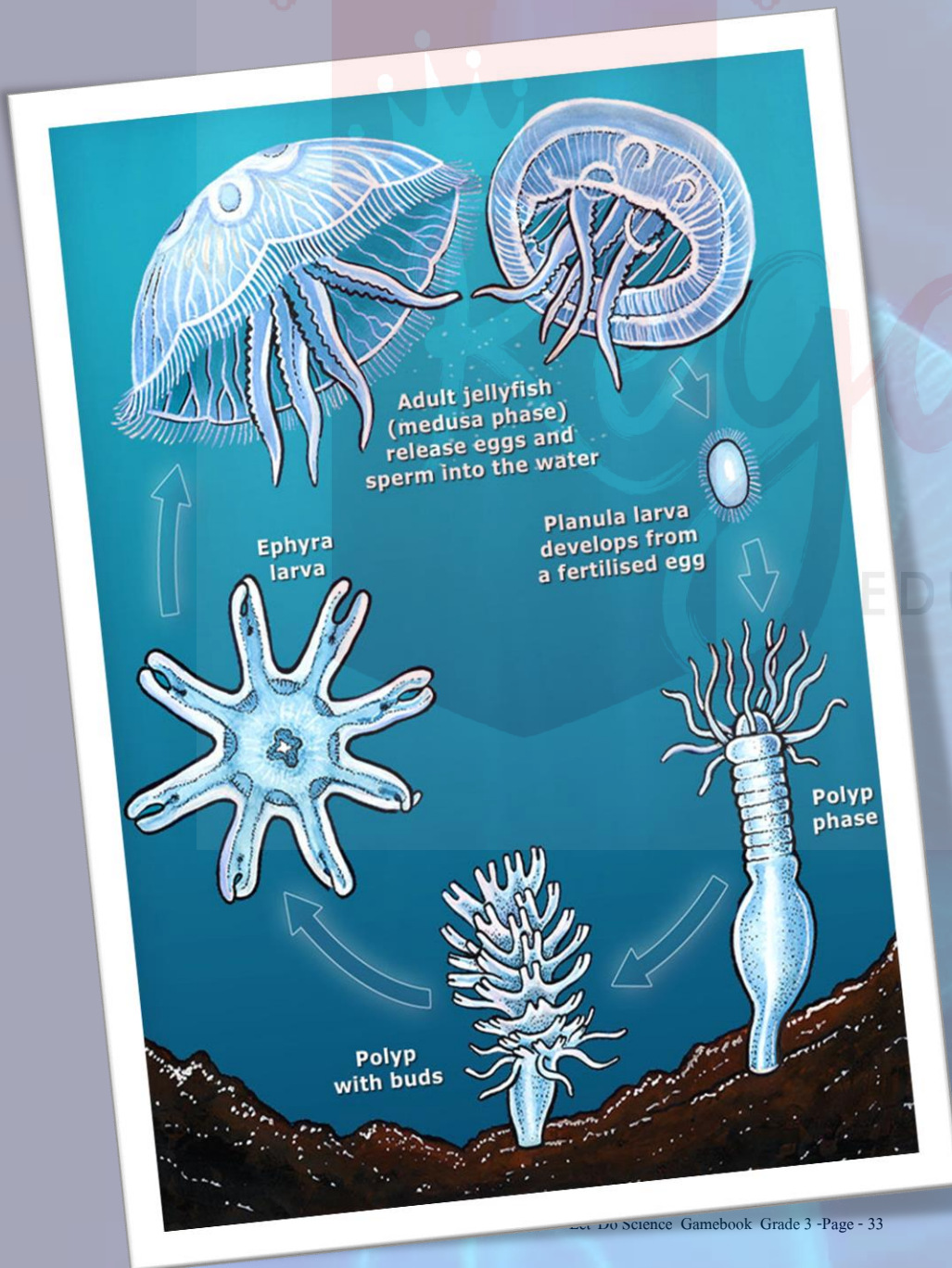
Compare your answers with your friends`.



Label each stage of the **jellyfish life cycle**.
Use the words given in the text.



Adult jellyfish, called medusa, release eggs and sperm. A fertilized egg develops into a free-swimming planula. The planula attaches itself to a firm surface. It develops into a flower-like polyp with a mouth and tentacles. The polyp develops buds. The buds turn into ephyra, or immature jellyfish and float away. The ephyra develops into a mature medusa.



Label each stage of the animal lifecycles.
Get together with your friends.
Compare both life cycles, find similarities and differences.

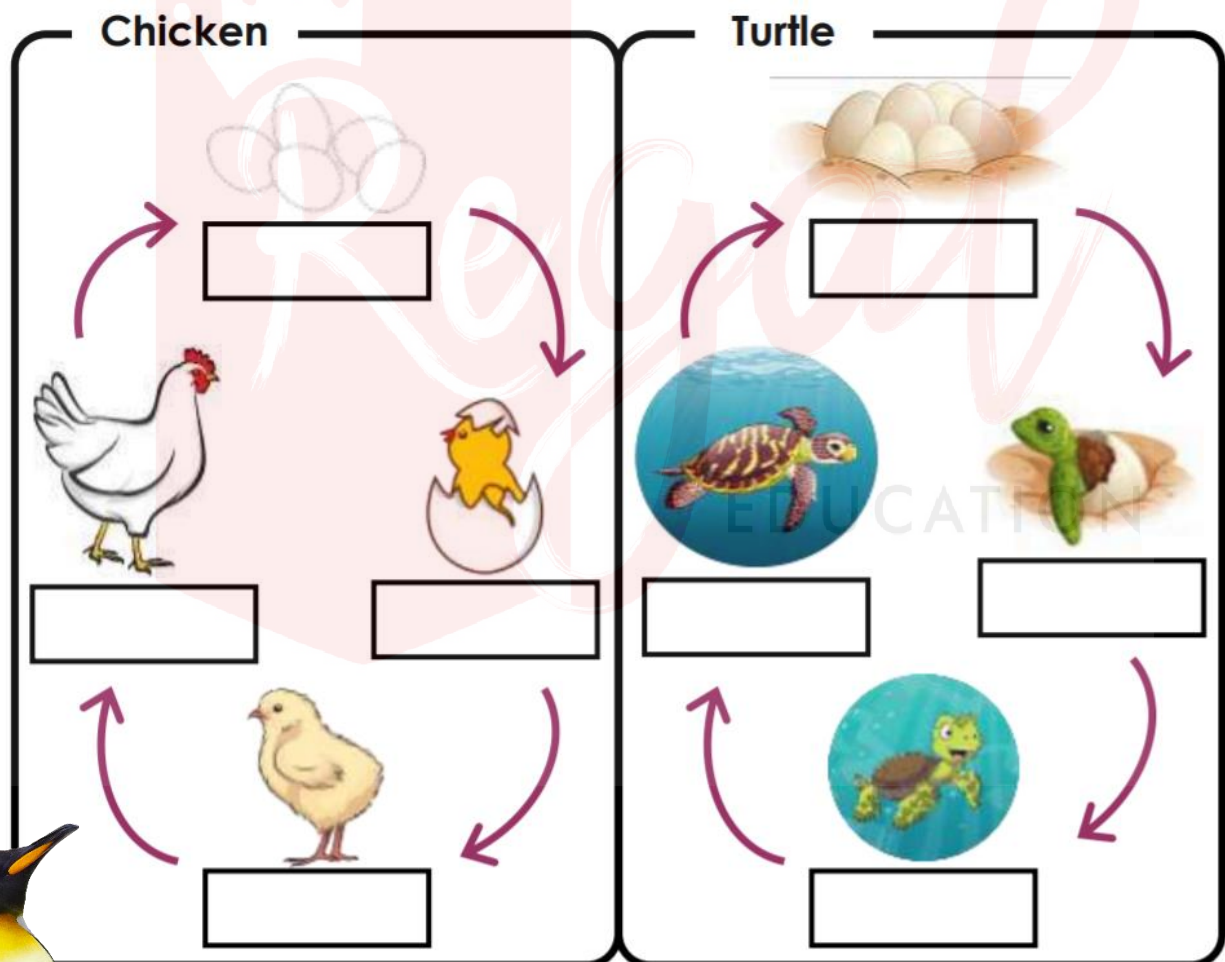
egg

hatchling

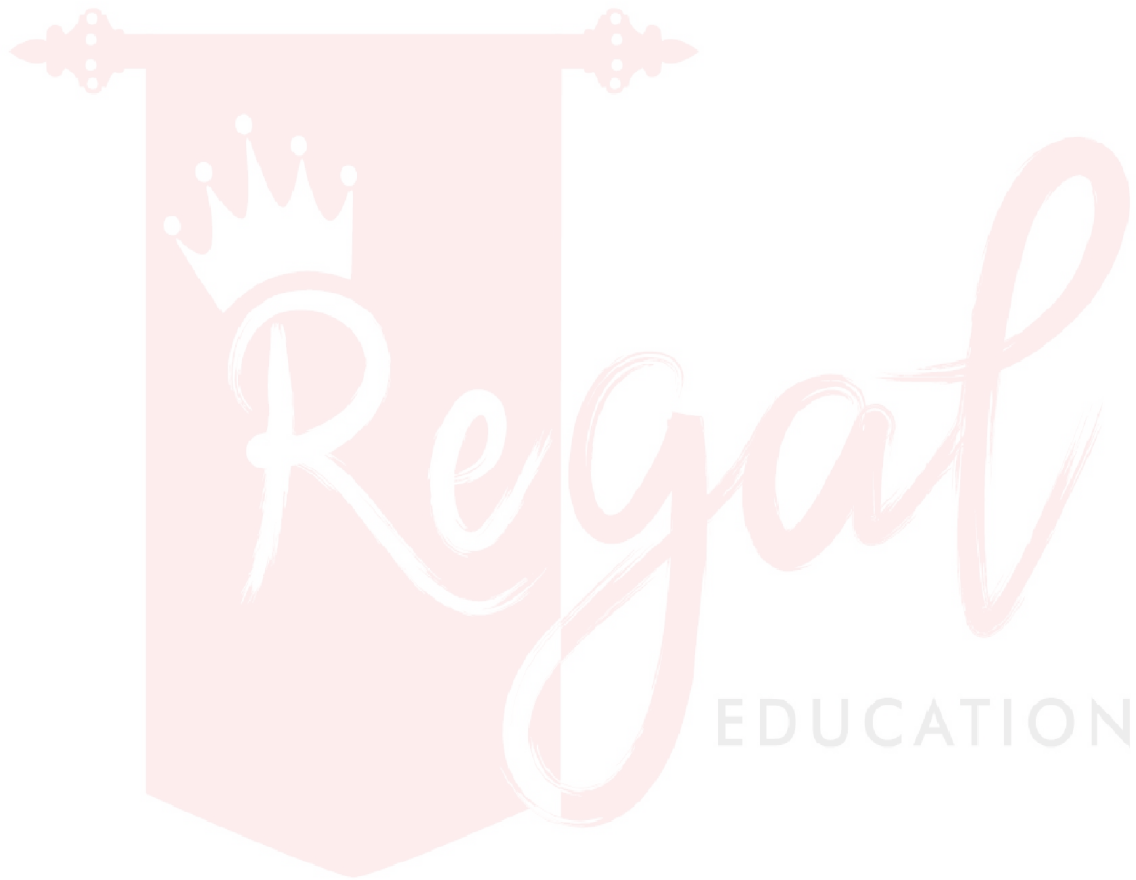
juvenile

adult

chick



Think of other animals that have the same life cycle.
Create a diagram.



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Mammals

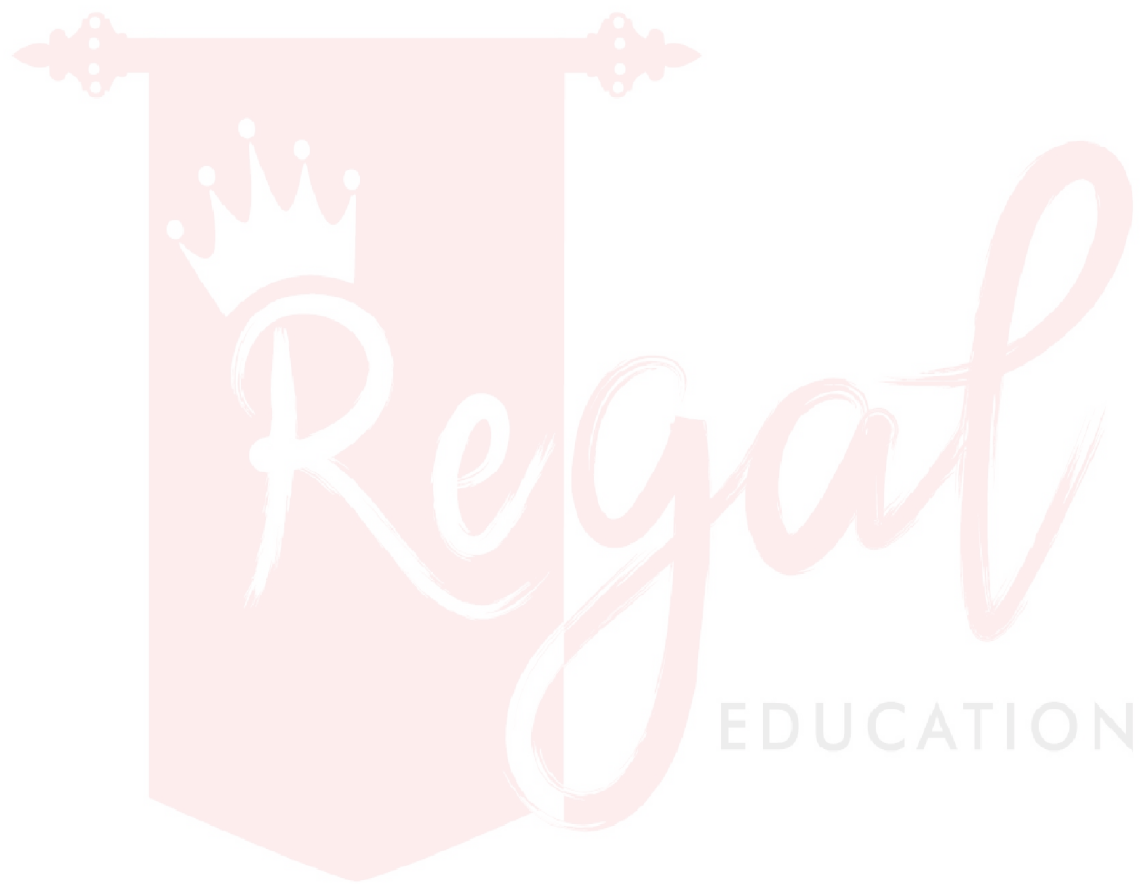
Oxygen

Vertebrates

Metamorphosis

Invertebrates

Birds



Fish

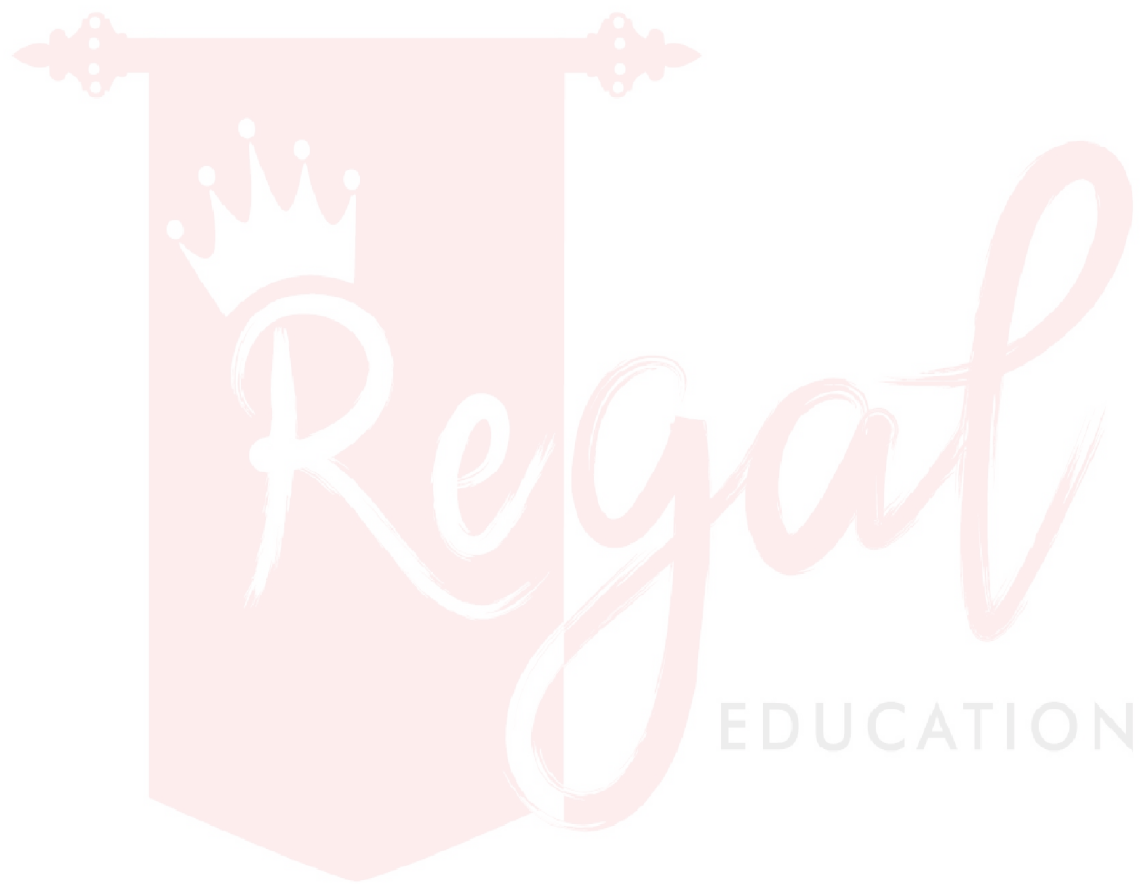
Amphibians

Larva

Caterpillar

Pupa

Chrysalis



Nymphs

Insects

Alevin

Parr

Smolt

Cold blooded



Hatching

Male

Female

Cub

Shelter



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SCAN ME



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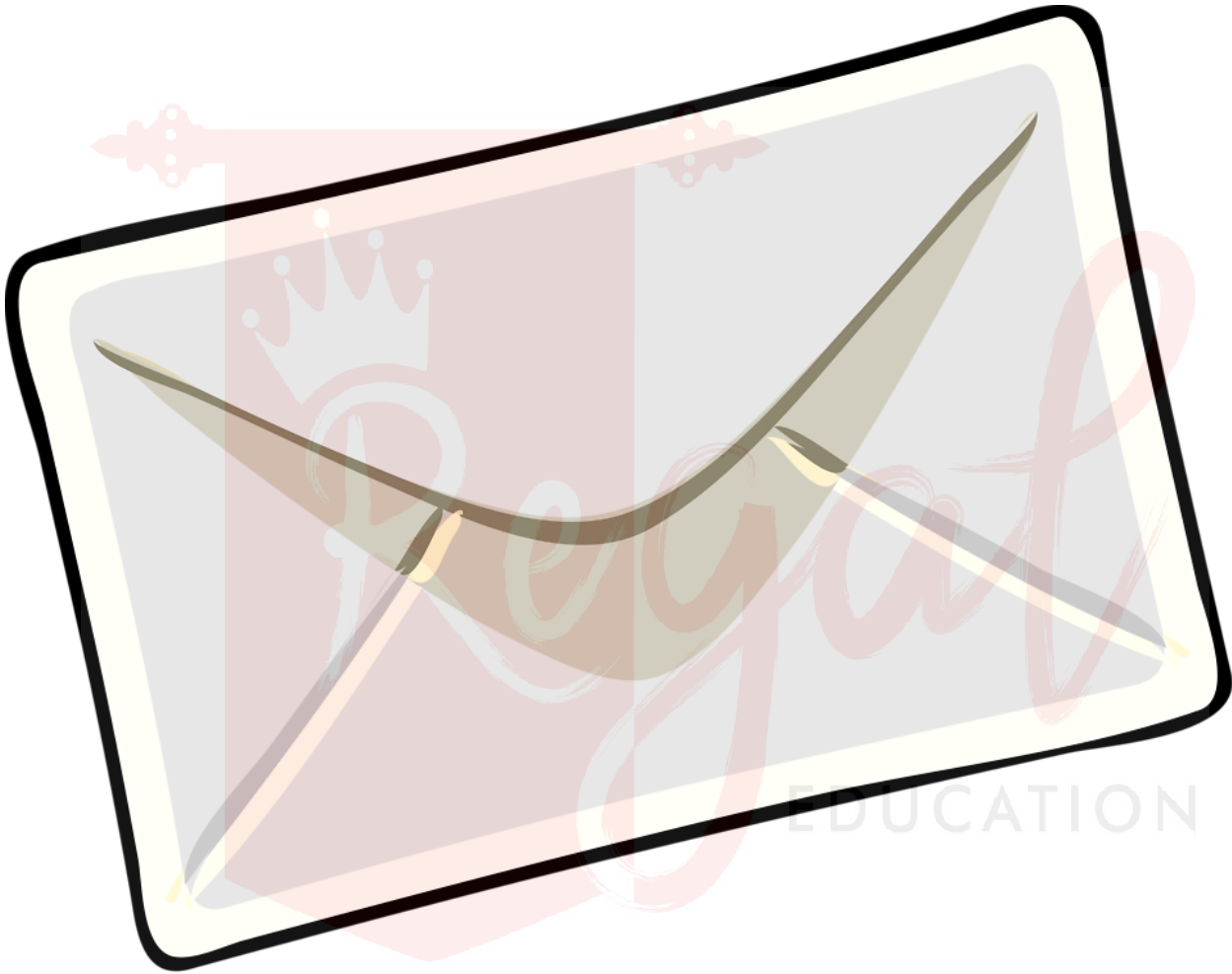


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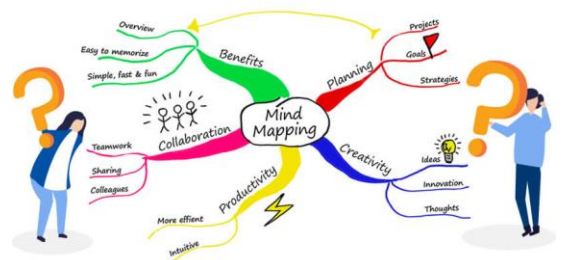
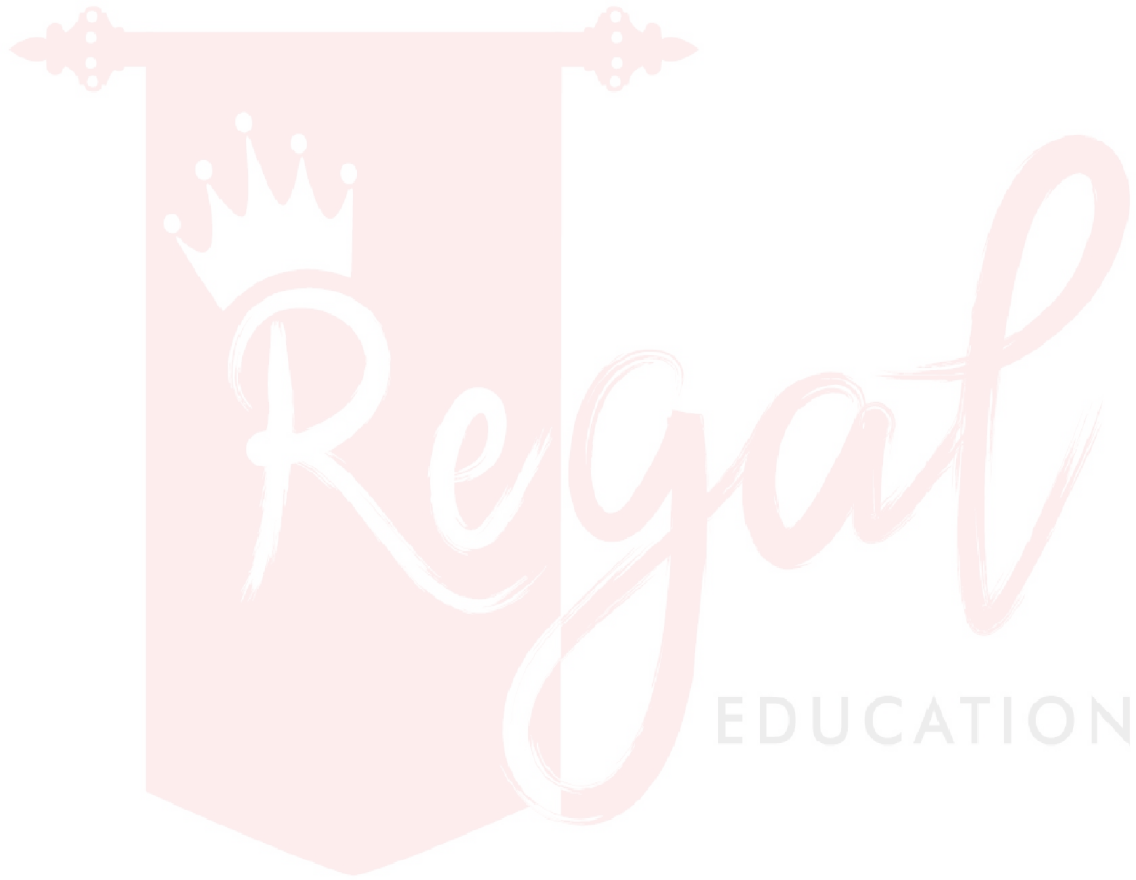


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mind map, scan the QR code.



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You can make up your own rules. Write them down here.

Heredity

Instinct

Species

Trait

**Environmental
traits**

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**Learned
traits**



**Natural
selection**

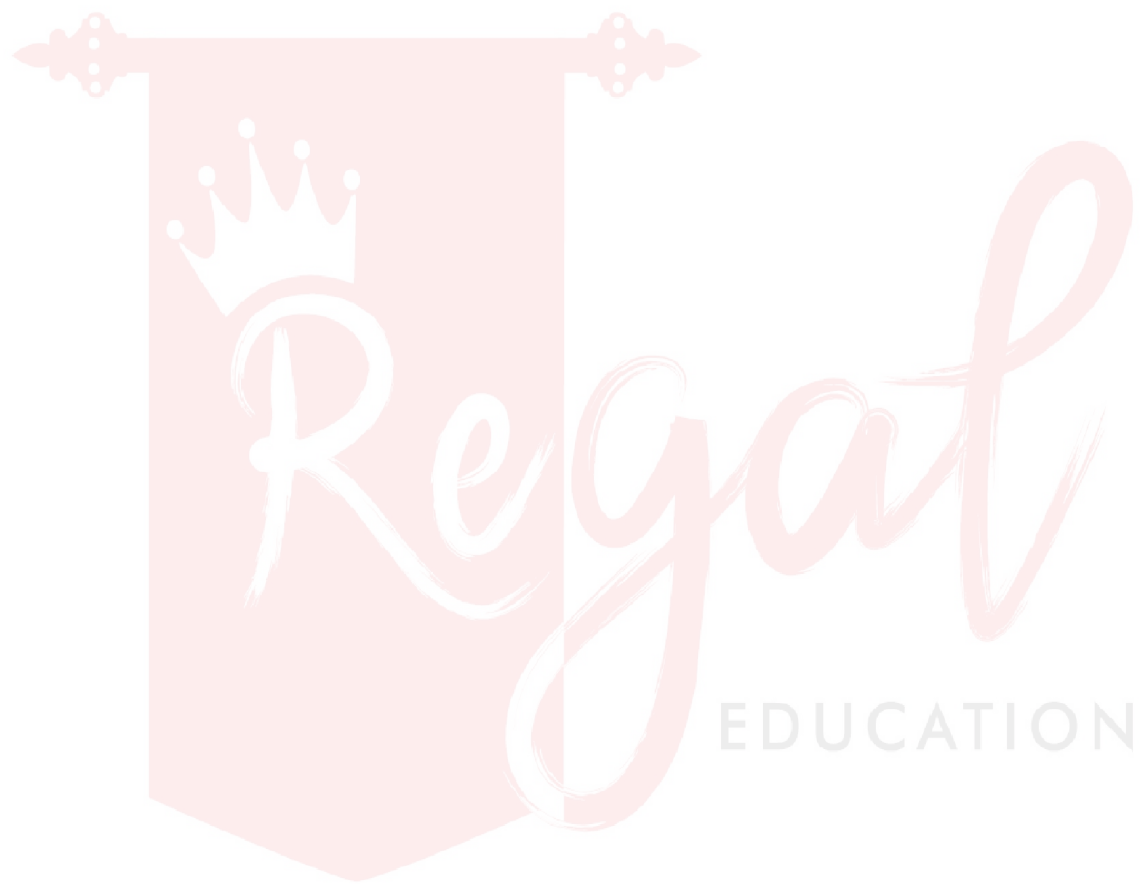
Variation

Camouflage

Offspring

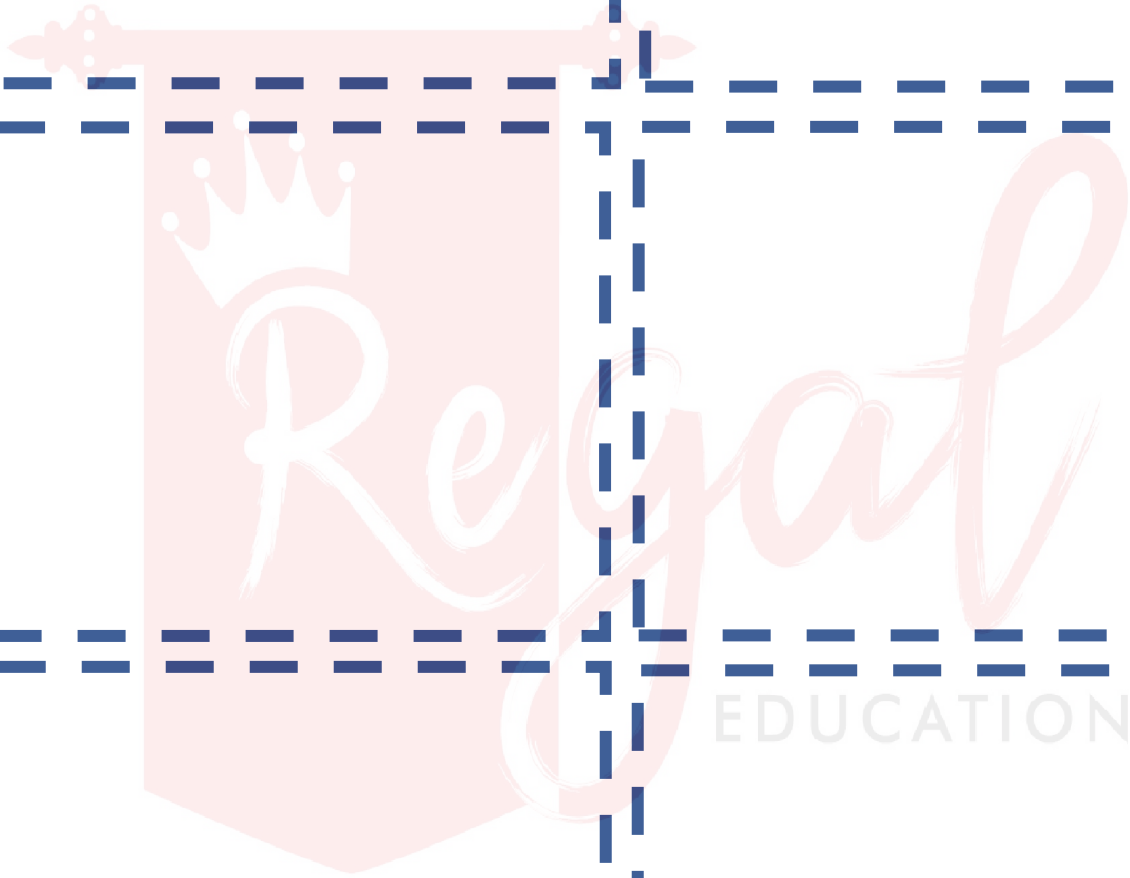
Survive

**Physical
trait**



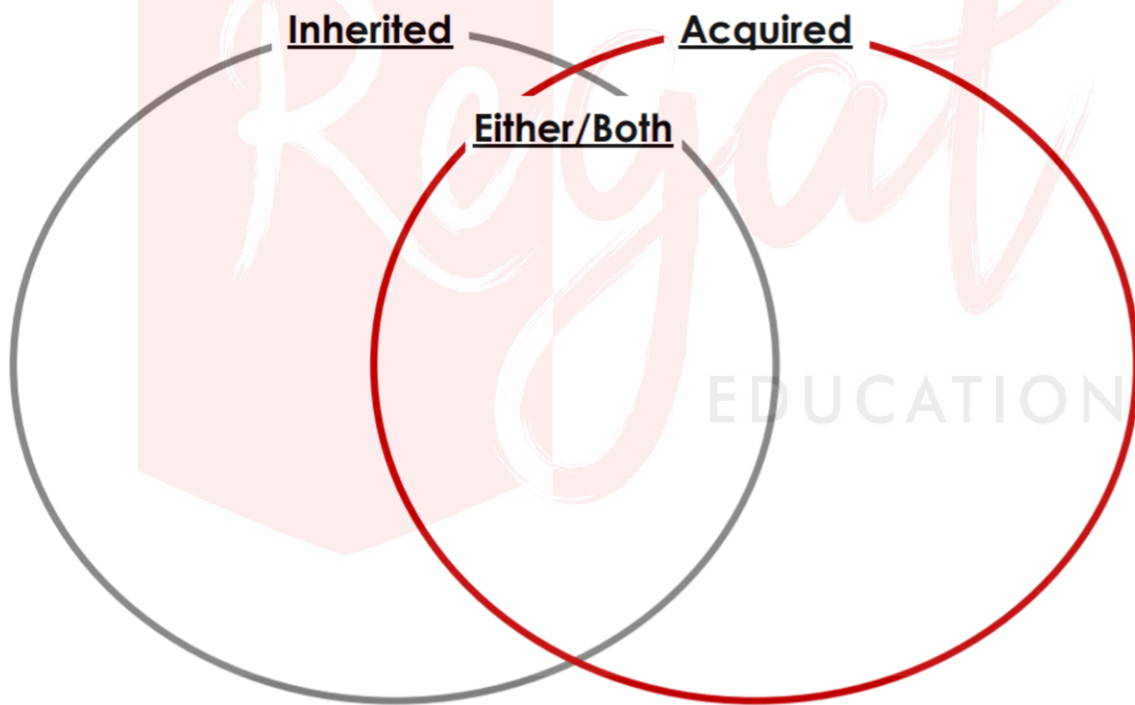
**Similar
animals**

Characteristics





Study the words in the box. Work with friends or alone. Think if the trait is inherited, acquired or both. Compare your answers with friends`.



Hair color is an inherited trait. People inherit the genes for their natural hair color from their parents. But people can also dye their hair! That would be an acquired trait. So, a trait can be inherited or acquired depending on where it comes from.

Inherited traits are passed on from parents to offspring.

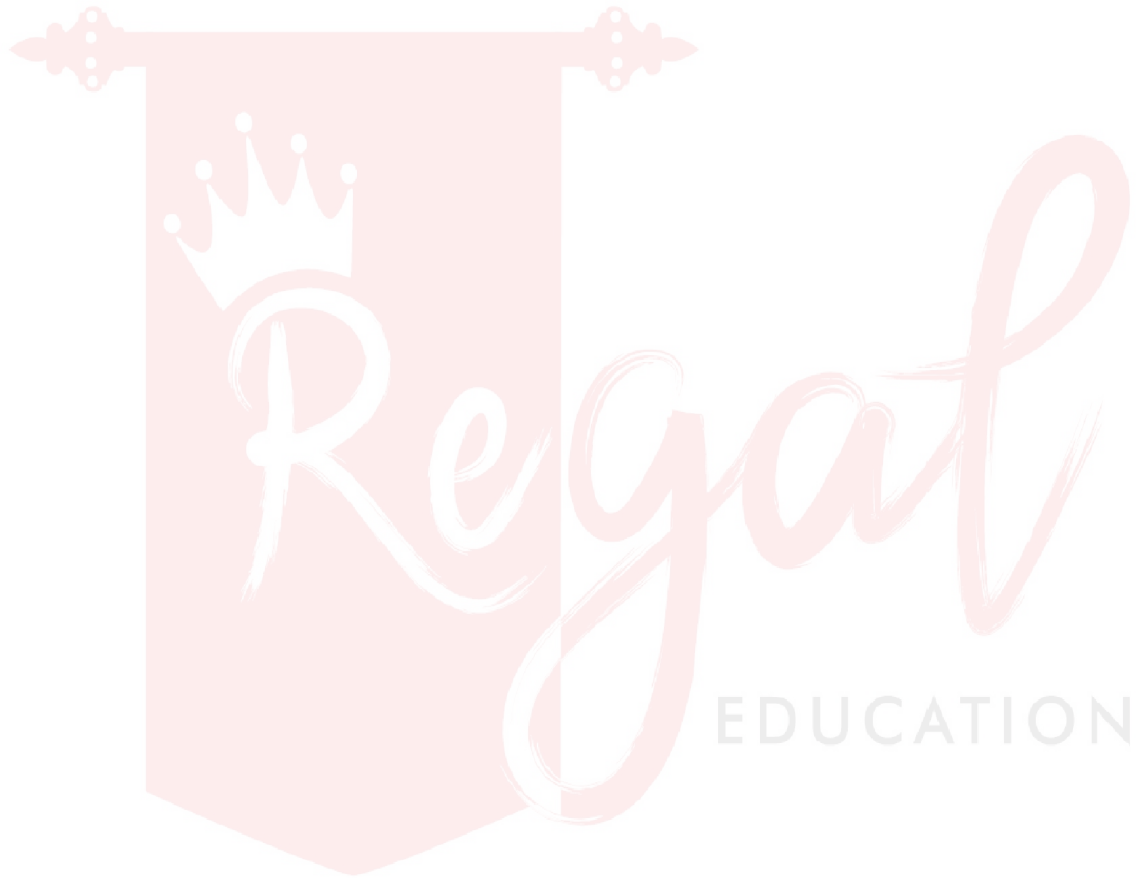
Acquired traits are learned or influenced by the environment and cannot be passed on to offspring.

Circle inherited or acquired. Compare your answers with your friends`.

A child has brown eyes.	acquired	inherited
A girl speaks Japanese.	acquired	inherited
A person can play the piano.	acquired	inherited
A child has curly hair.	acquired	inherited
A man has a scar on his cheek.	acquired	inherited
A boy is tall.	acquired	inherited
A child has good education.	acquired	inherited
A dog comes when it is called.	acquired	inherited
A rabbit's fur turns white in winter.	acquired	inherited
A spider spins a web.	acquired	inherited
An eagle can fly.	acquired	inherited
A tree's branch breaks during a storm.	acquired	inherited
A tree has green leaves.	acquired	inherited
A kitten has a long tail.	acquired	inherited
A child is clever.	acquired	inherited

1. What are three traits you inherited from your parents?
2. What are two traits you have learned or acquired as you have grown up?
3. What is one trait that you inherited but has changed because of what you learned or did?

Draw and explain. Compare your answers with your friends`.



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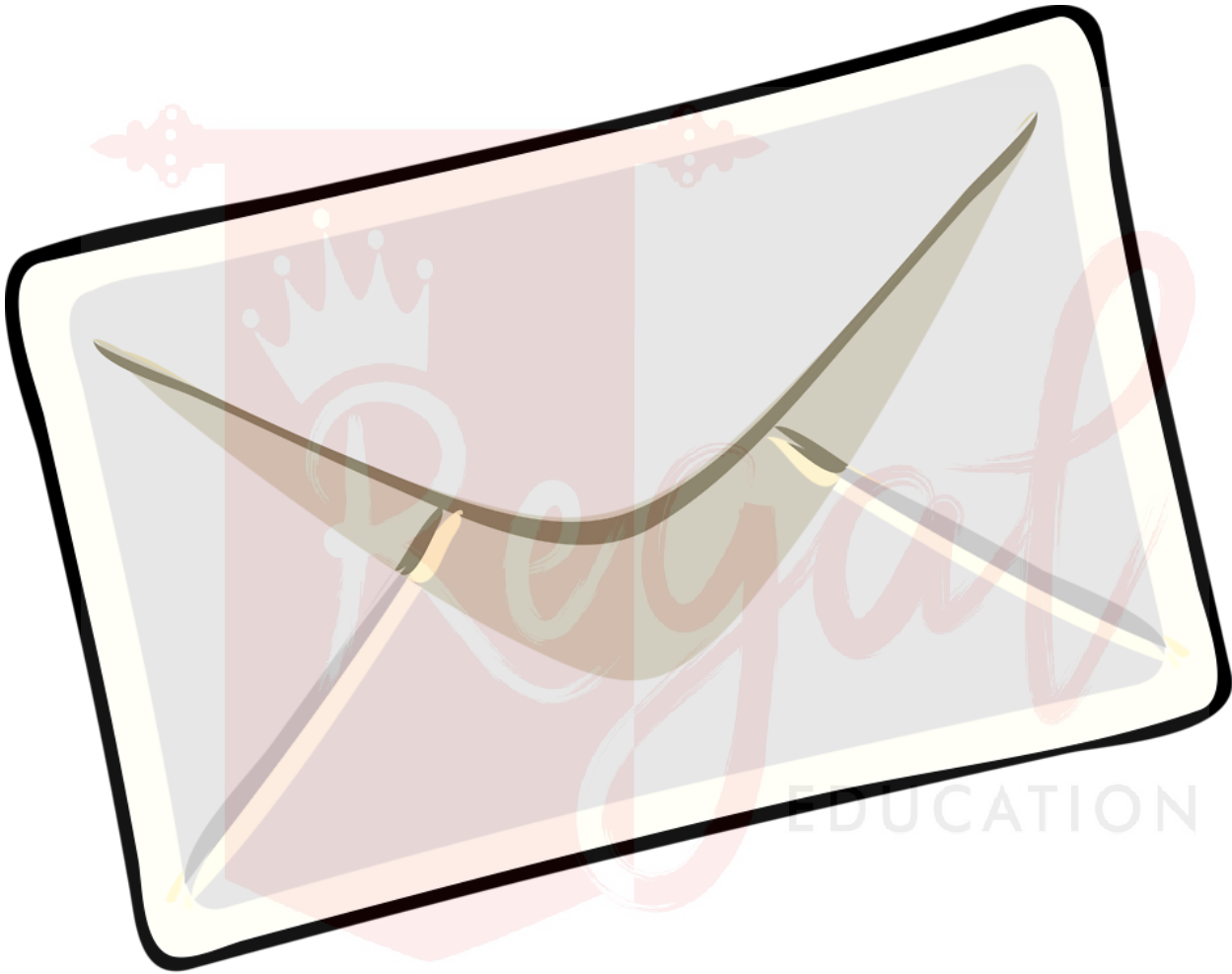


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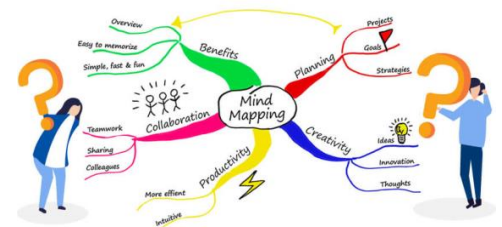
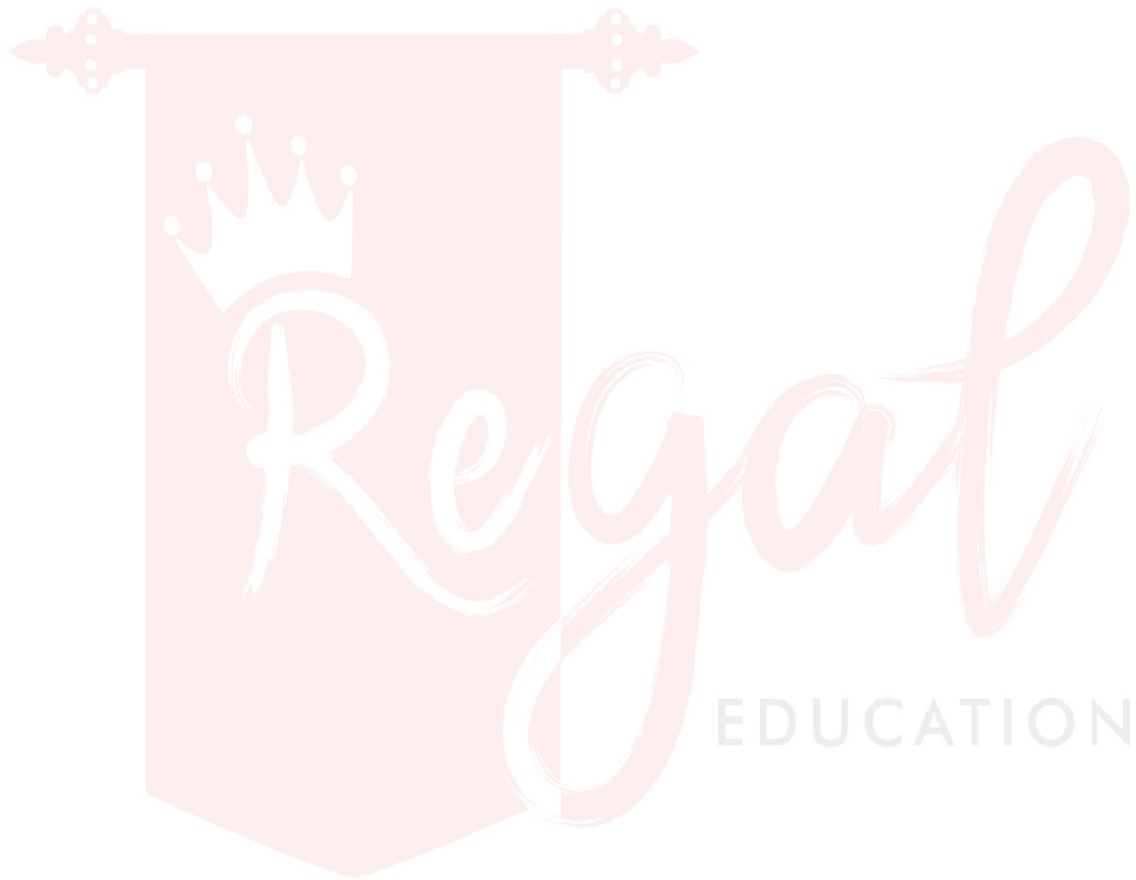


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Find and circle the words in a
WORD SNAIL.

Unit 5



Compare your answers with your friends`.

Have you ever wondered what to call a group of animals? Get together with your friends. Think how you can arrange these animals and groups into a mind map, a diagram, or any other form. Compare your answers with other groups`.

Animal Group Names

Antelope: a herd

Ants: a colony or an army

Apes: a shrewdness

Baboons: a troop

Badgers: a cete

Bats: a colony, cloud, or cauldron

Bears: a sloth or sleuth;

Cubs: a litter

Beavers: a colony

Bees: a swarm

Boar: a sounder

Buffalo: a gang or obstinacy

Camels: a caravan

Caterpillars: an army



Cats: a clowder, glaring, pounce, nuisance, or clutter

Kittens: a litter or kindle

Wild cats: a destruction

Cattle: a herd or drove

Cheetahs: a coalition

Chickens: a brood or peep

Chicks: a clutch or chattering

Clams: a bed

Cobras: a quiver

Cows: a kine, drove, herd or fold; twelve or more cows are a flink

Coyotes: a band

Cranes: a sedge

Crocodiles: a float or bask

Crows: a murder

Deer: a herd

Dogs: a pack or cowardice

Puppies: a litter

Dolphins: a pod

Donkeys: a drove



Doves: a dule

Ducks: a brace, paddling or team

Eagles: a convocation

Elephants: a herd or parade

Elk: a gang or herd

Emus: a mob

Falcons: a cast

Ferrets: a business or fesnyng

Finches: a charm

Fish: a school, shoal, run, haul or catch

Flamingos: a stand or flamboyance

Flies: a swarm, hatch or business

Foxes: a skulk or leash

Frogs: an army or a colony

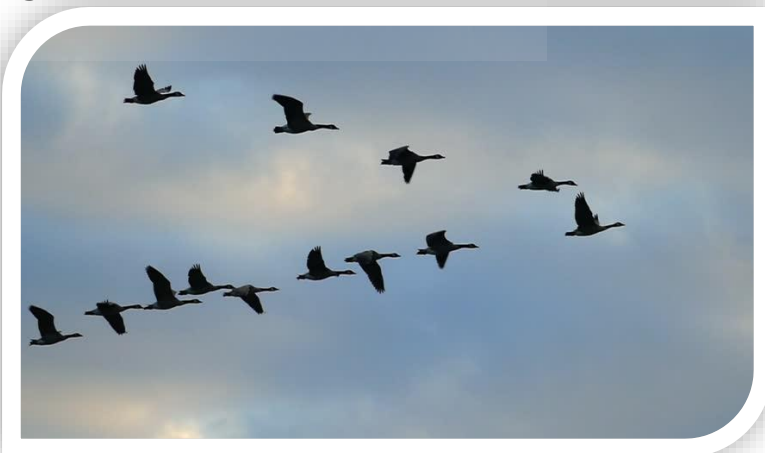
Geese: a gaggle or flock, a skein when in flight

Giraffes: a tower

Gnats: a cloud or horde

Goats: a herd, tribe, or trip

Goldfinches: a charm



Goldfish: a troubling

Gorillas: a band

Grasshoppers: a cloud

Greyhounds: a leach

Hares: a down or husk

Hawks: a cast or kettle

Hippopotami: a bloat or thunder

Horses: a team or harras

Hounds: a pack, mute, or cry

Hyenas: a cackle

Jaguars: a shadow

Jellyfish: a smack or brood

Kangaroos: a troop or mob

Larks: an ascension or exaltation

Lemurs: a conspiracy

Leopards: a leap

Lice: a flock

Lions: a pride

Locust: a plague or cloud



Magpies: a tiding or tittering

Mallards: a sord

Manatees: an aggregation

Mares: a stud

Martens: a richness

Moles: a labor

Monkeys: a barrel, cartload, or troop

Mules: a pack, barren, or span

Nightingales: a watch

Otters: a family, romp, or raft

Owls: a parliament

Oxen: a team or yoke

Oysters: a bed

Parrots: a pandemonium or company

Peacocks: a muster or ostentation

Penguins: a colony

Pheasants: a nest, nide, or bouquet

Pigeons: a flock or flights

Ponies: a string



Porcupines: a prickle

Rabbits: a colony or warren

Raccoons: a gaze

Rats: a colony, pack, or swarm

Rattlesnakes: a rhumba

Ravens: an unkindness

Rhinoceroses: a crash

Sharks: a shiver

Sheep: a drove or flock

Skunks: a stench

Snakes: a nest or knot

Sparrows: a host

Squirrels: a dray, or scurry

Starlings: a murmuration

Stingrays: a fever

Storks: a mustering

Swans: a bevy or lamentation, a wedge when in flight

Tigers: an ambush or a streak

Toads: a knot or knab



Trout: a hover

Turkeys: a gang, posse, or rafter

Turtles: a bale or nest

Vultures: a venue

Wasps: a pledge

Weasels: a colony, gang, or pack

Whales: a pod, school, or gam

Wolves: a pack or route

Wombats: a wisdom

Woodpeckers: a descent

Zebras: a zeal

A VENUE OF VULTURES



1. Which word is the most common name for a group of animals?

2. Which word is the rarest name for a group of animals?

3. Which word is the funniest name for a group of animals?

4. Which words surprised you most?

5. Which words have you already known?

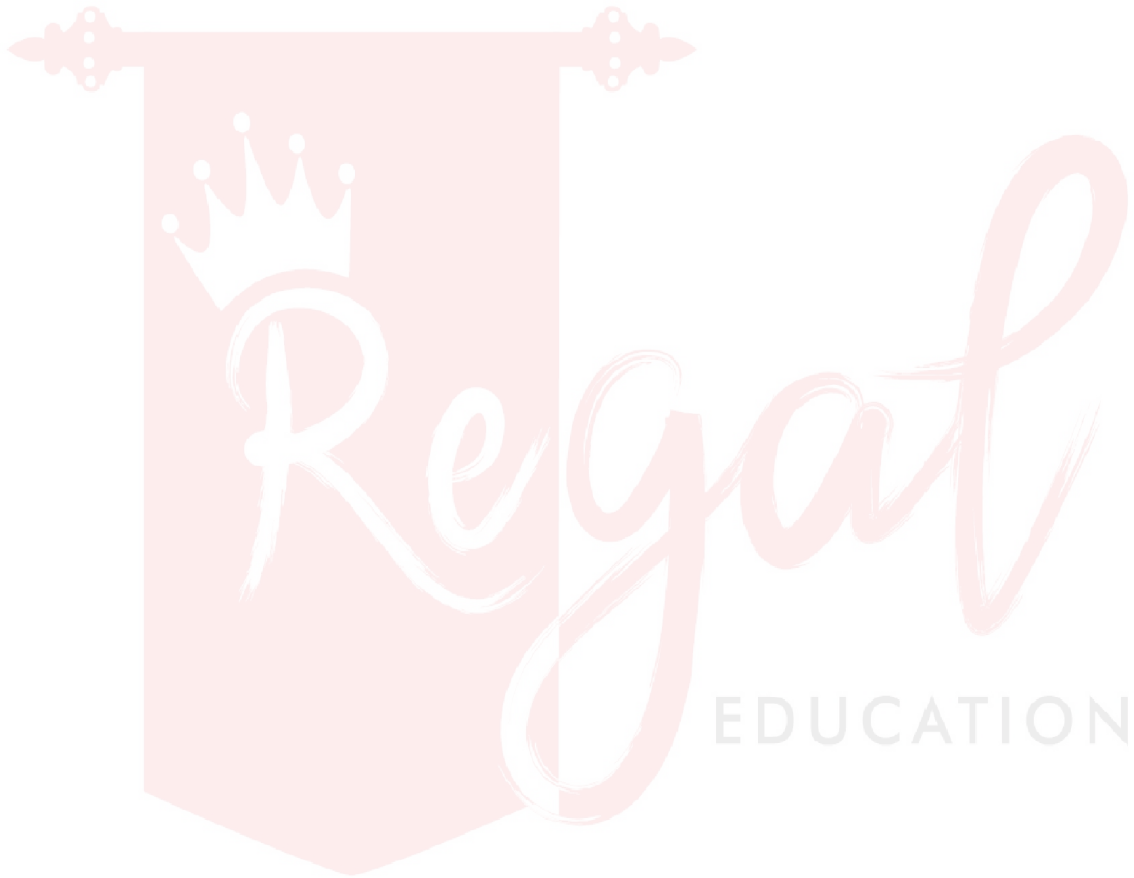
6. Which words have you seen for the first time?

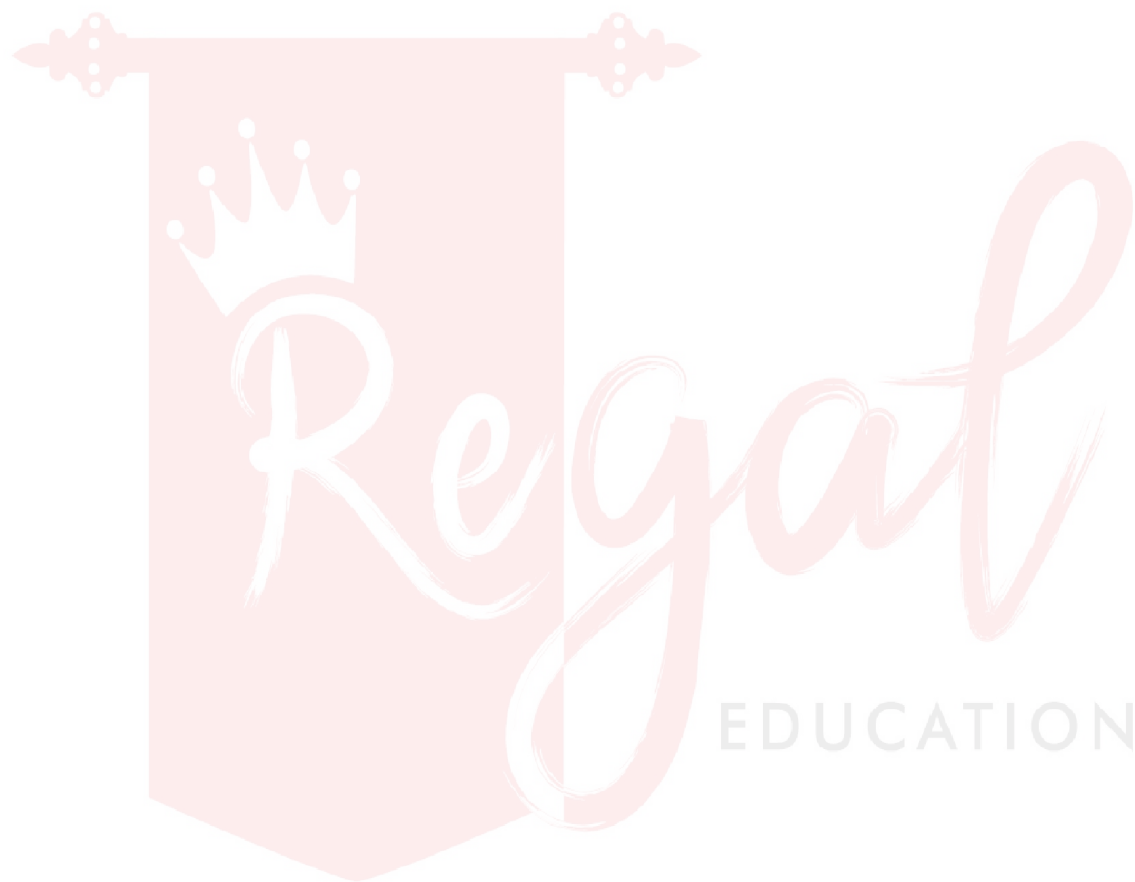
7. Which groups of animals live in your country?

8. Write down the names of animals you have never seen or heard about.



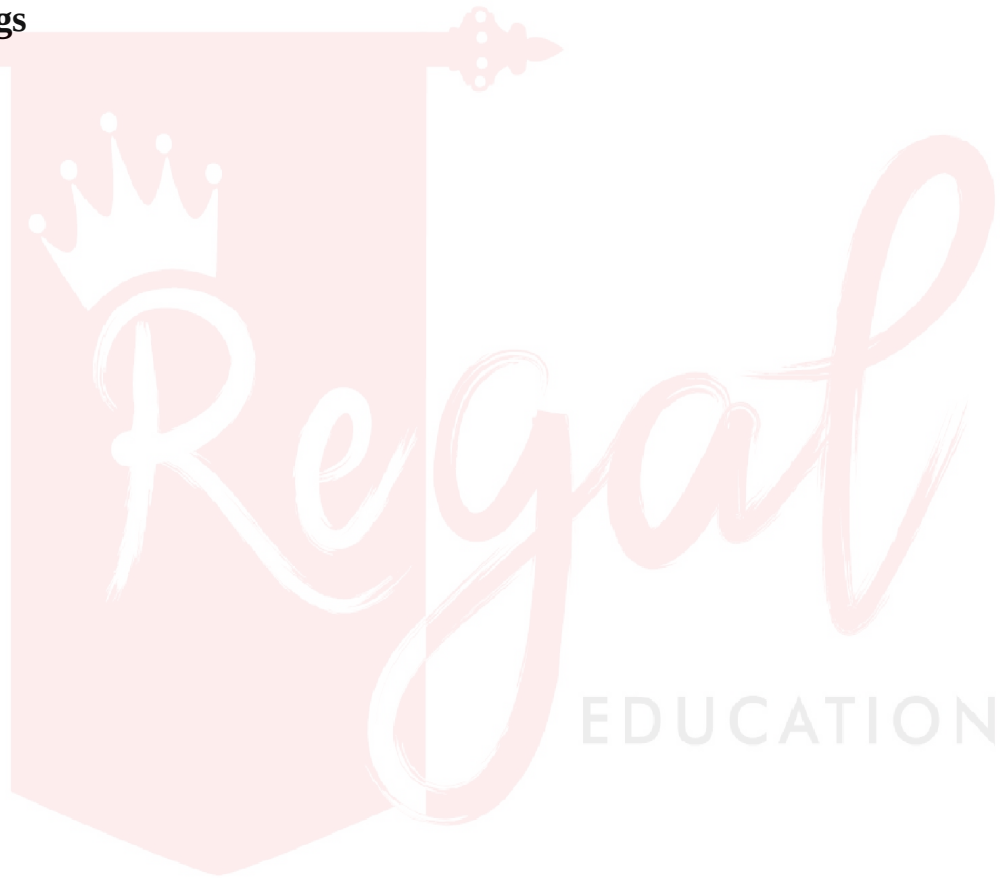
**Create a mind map that would help you to memorize groups of animals.
Work alone or with friends. Compare your answers with other groups`.**

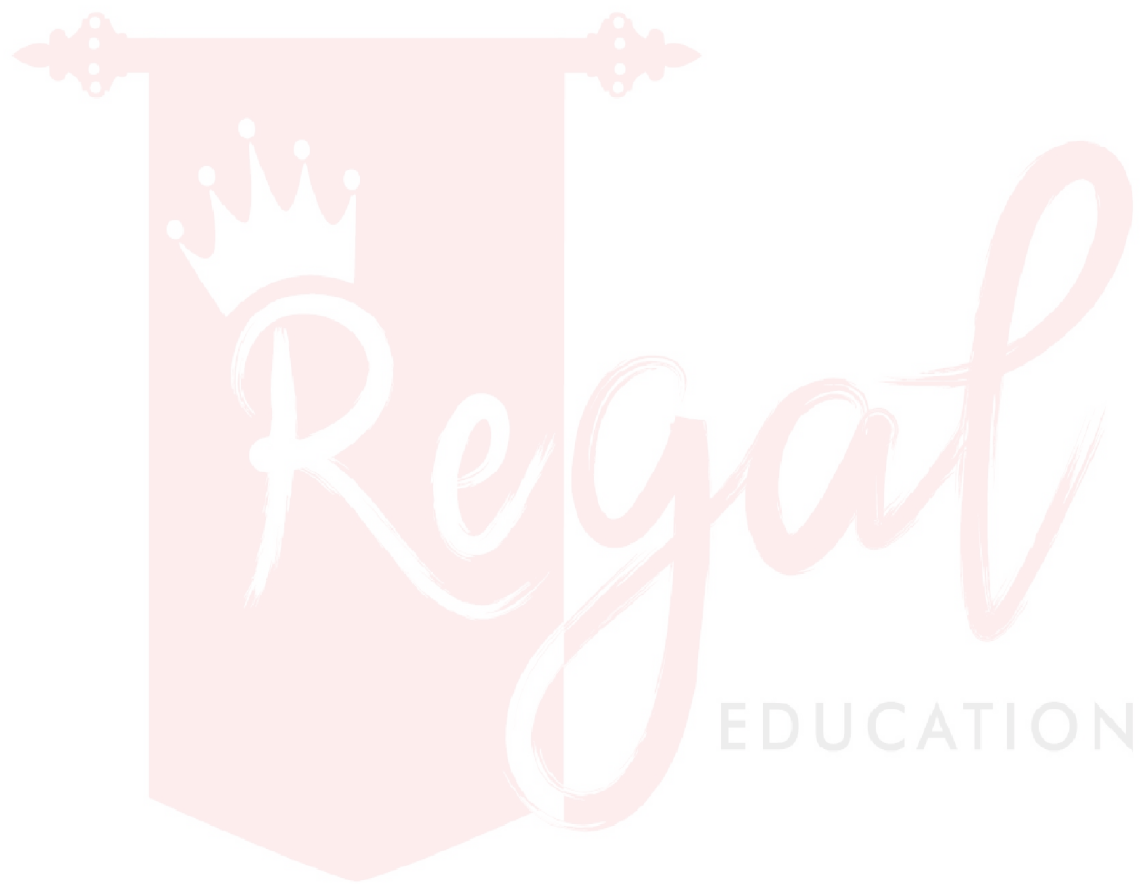


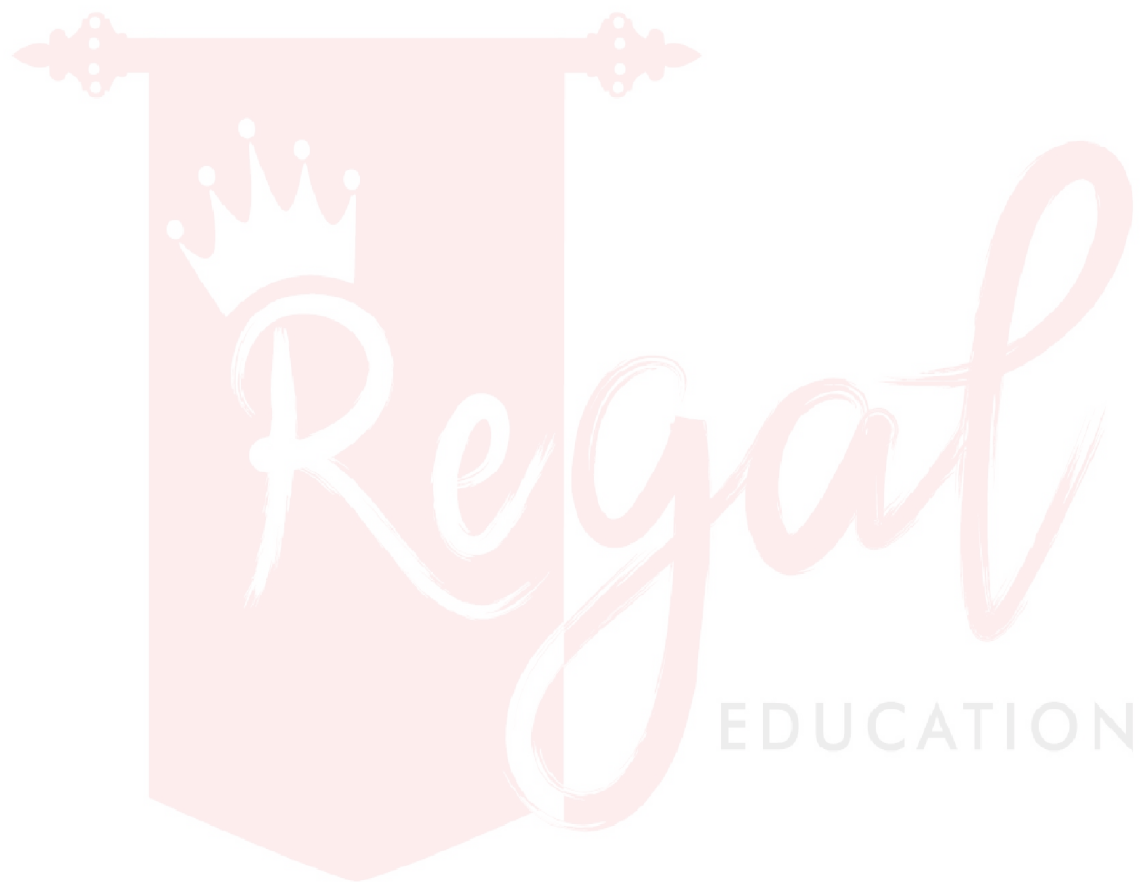


Create a crossword or a wordsnail with the keywords of the Unit. You can add more words to the list. Add the words that are difficult for you to remember.

**adaptation
survive
blubber
camouflage
surroundings
habitat
variety
organism
nocturnal
burrow
spines
pollinator
rainforest
moist
mimicry
prey
taproots
deciduous
hibernation
migration
waggle
monkey
troop
elephant
parade
lions
pride
kangaroos
mob
giraffes
tower
pollution**







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SCAN ME



SCAN ME



SCAN ME



SCAN ME

Fossils

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Unit 6



Fossil Mystery

“What is that?”

“It looks like a fossil.”

“It looks part-human.”

“It can’t be...”



The archeologists all started talking at once. I listened to snippets from each of their conversations. The words “animal” and “human” were argued about, with half of us thinking it looked like one while the other half was thinking it looked like the other. As the chatter started to dwindle, I spoke.

“What if it’s neither human nor animal? What if it’s something we haven’t discovered yet? Maybe even something from out of our world...”

There was silence as my colleagues digested what I was saying. Frank said, “I think you might be right. It’s not a dinosaur or any other animal we’ve encountered. It’s not a human. What else could it be?”

The other scientists started talking with one another again. They were talking about tests they could run, and about species of animals they could look up to compare this fossil to. They began



to head back to their laptops to begin researching. Frank and I stayed behind. We continued to examine the fossil. It was hard to describe the creature that was fossilized. It was smaller than a human but looked like it would have stood on two legs instead of four. Its head was large, and it had 6 fingers on each hand, and 8 toes on each foot.

“Do you think it could have been a human from long ago?” Frank asked.

“Maybe, but I’ve never seen one with that many fingers and toes,” I answered.

“It could be a new animal species. Maybe it just looks like it would have stood on two legs, but it only looks like that because of the way it was fossilized. I really don’t know.”

Frank and I headed back to our rooms to think it over and get some sleep. The next morning, I rushed straight to the fossil. There were already other archaeologists there, with confused looks on their faces. As I headed closer, I began to see why. The fossil was different. It had changed overnight! Now it looked like a small bear.



“What happened?” I asked.

No one had an answer. None of us could understand how a fossil we had dug up yesterday had just changed. We spent time examining it again. We took pictures and videos of it. We searched to see if anyone had ever come across a changing fossil. No one found anything that was helpful in solving our mystery. What kind of fossil was this? When night fell, we set up a rotation to make sure two of us were with the fossil at all times. We wanted to make sure that someone wasn't playing a prank on us by switching fossils somehow. All was quiet for my watch, which was in the middle of the night. In the morning, I went there to find my colleagues puzzling over the fossil. It had changed again! No one had seen or heard anything on their watch. How and why did it keep changing? To this day, no one has found the answer to the mystery!



1. Summarize the story in 2-3 sentences.

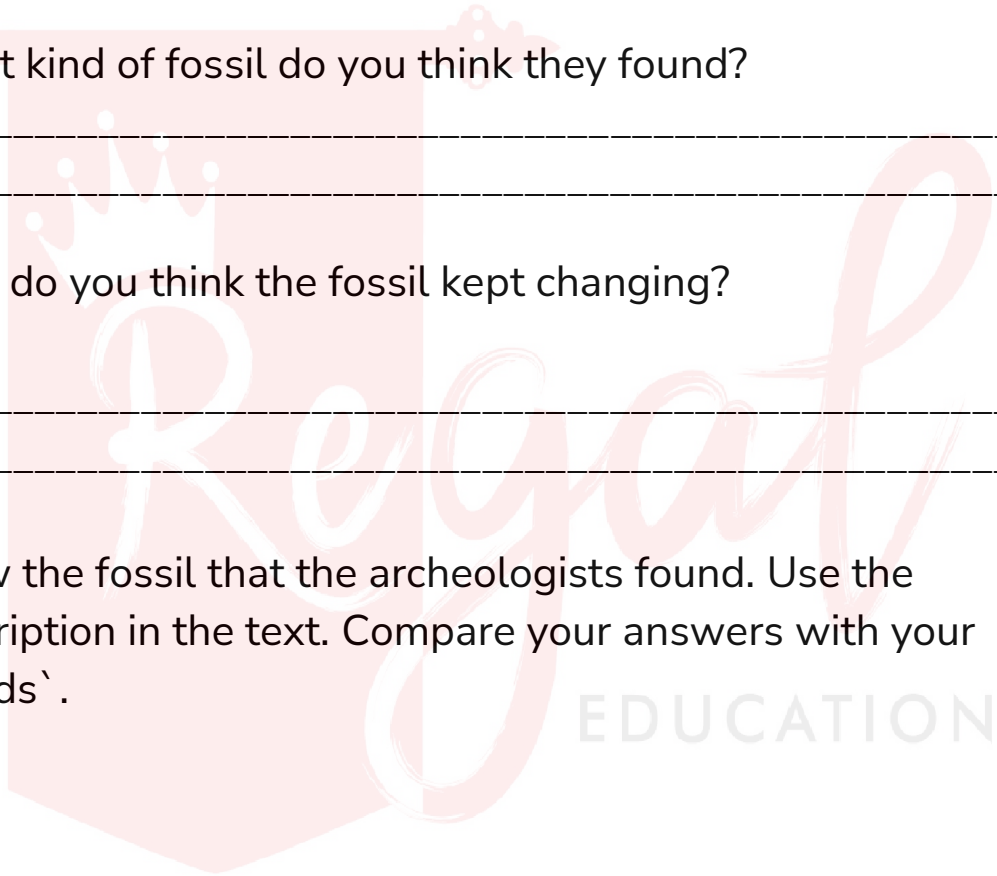
2. Is this short story fiction or non-fiction? Explain your answer.

3. What do you think happened next?

4. What kind of fossil do you think they found?

5. Why do you think the fossil kept changing?

6. Draw the fossil that the archeologists found. Use the description in the text. Compare your answers with your friends`.



7. Imagine that you are one of archeologists in a team.
Describe how you found the fossil and how you felt about everything that was happening with it. Write a letter to your friend about your experience.



Unit 7

- ❖ Cut out the vocabulary cards.
- ❖ Check how many words you remember.
- ❖ At the back of each card write down any information you find to be important about this word.
- ❖ Compare your notes and your friends`.
- ❖ Play with your friends.
- ❖ Mix all the cards together.
- ❖ Draw (take) a card. Read the word and try to guess what is written at the back of the card.
- ❖ Read what is written at the back of a card and try to guess the word.

You can make up your own rules. Write them down here.

Rotation

24 hours

Daytime

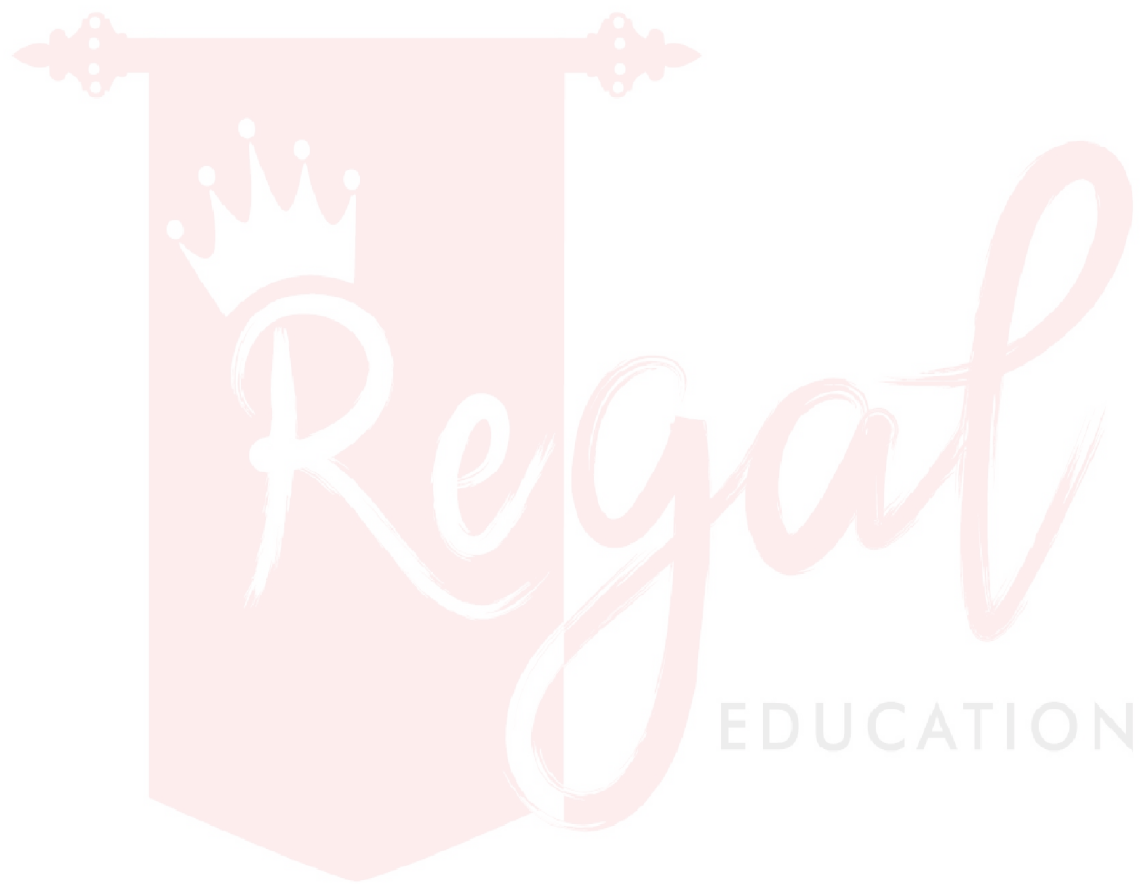
Night-time

Revolution

**Southern
Hemisphere**

**Northern
Hemisphere**

Axis



Seasons

Orbit

Satellite

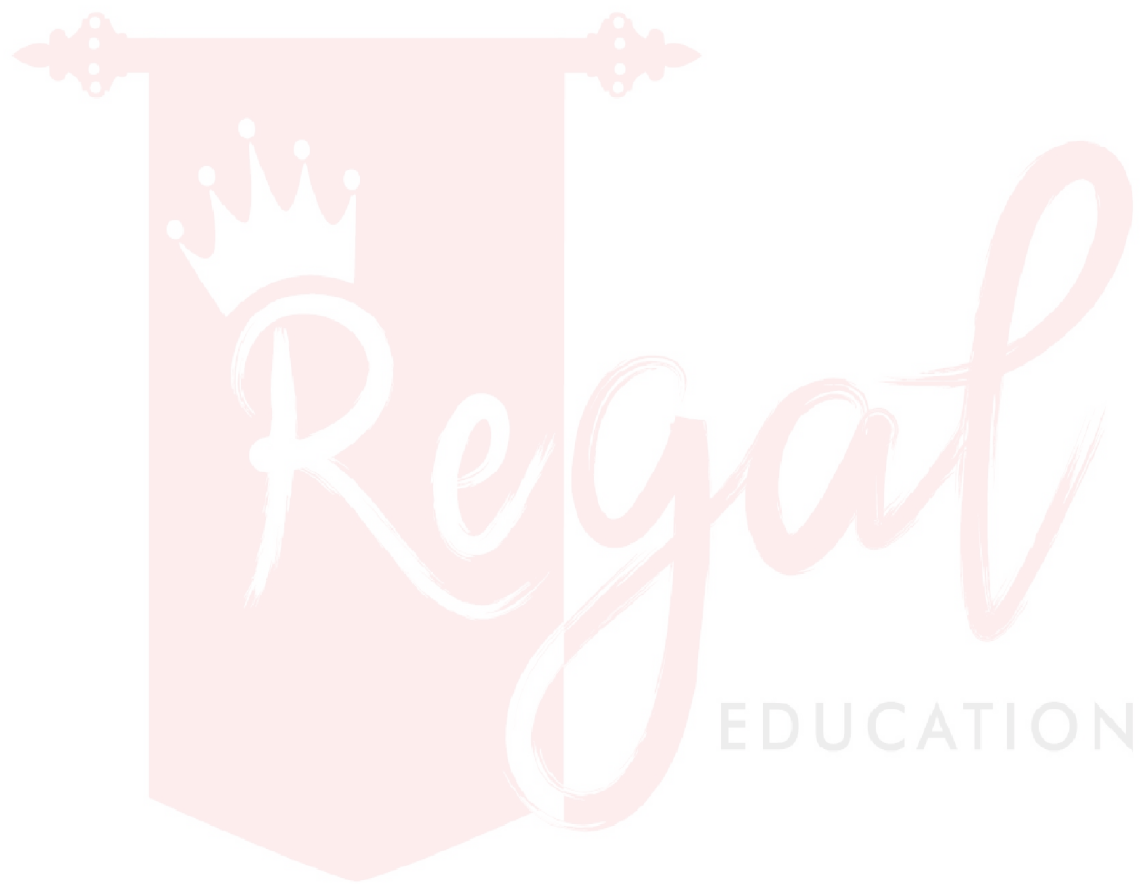
**Phases of the
Moon**

Star

Mercury

Venus

Earth



Mars

Jupiter

Saturn

Uranus

Neptune

Solar system

Pluto

Asteroids



Comets

Meteoroids

Meteor

Meteorite

Crater

Sputnik 1

Space Crafts

Space Station

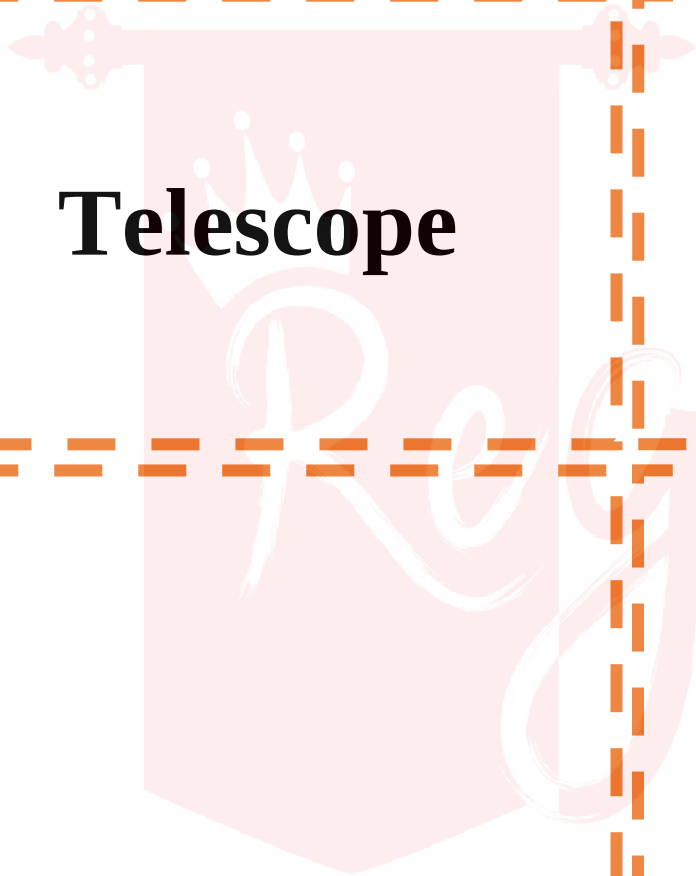


Rockets

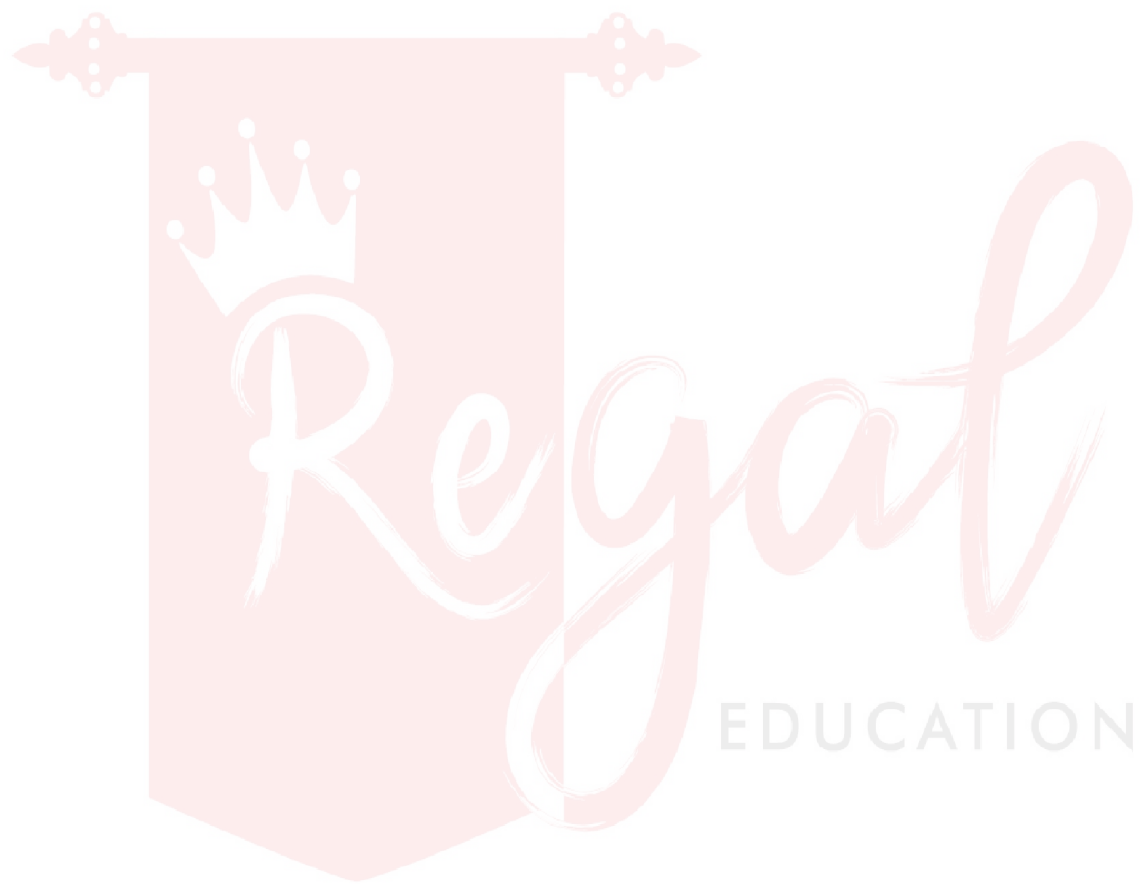
**Space
exploration**

Telescope

Space probes



EDUCATION



Write the correct word by each definition.

astronaut

spacecraft

gravity

lander

launch

manned

orbit

rocket engine

rover

1. Repeated path an object in space takes around another object. _____
2. Spacecraft that travels safely to the surface of a planet, moon, or asteroid. _____
3. Person who travels to space. _____
4. Vehicle designed to travel to space. _____
5. Device with enough force to push a vehicle out of Earth's atmosphere. _____
6. Force pulling toward the center of Earth. _____
7. Unmanned spacecraft that explores the solid surface of a planet, moon, or other body. _____
8. Any space vehicle that carries a person or people. _____
9. Send a vehicle to space. _____

Listen and read the stories.

Which one did you like most? Why?

Would you like to travel to the Space? Why?



SCAN ME



SCAN ME



SCAN ME



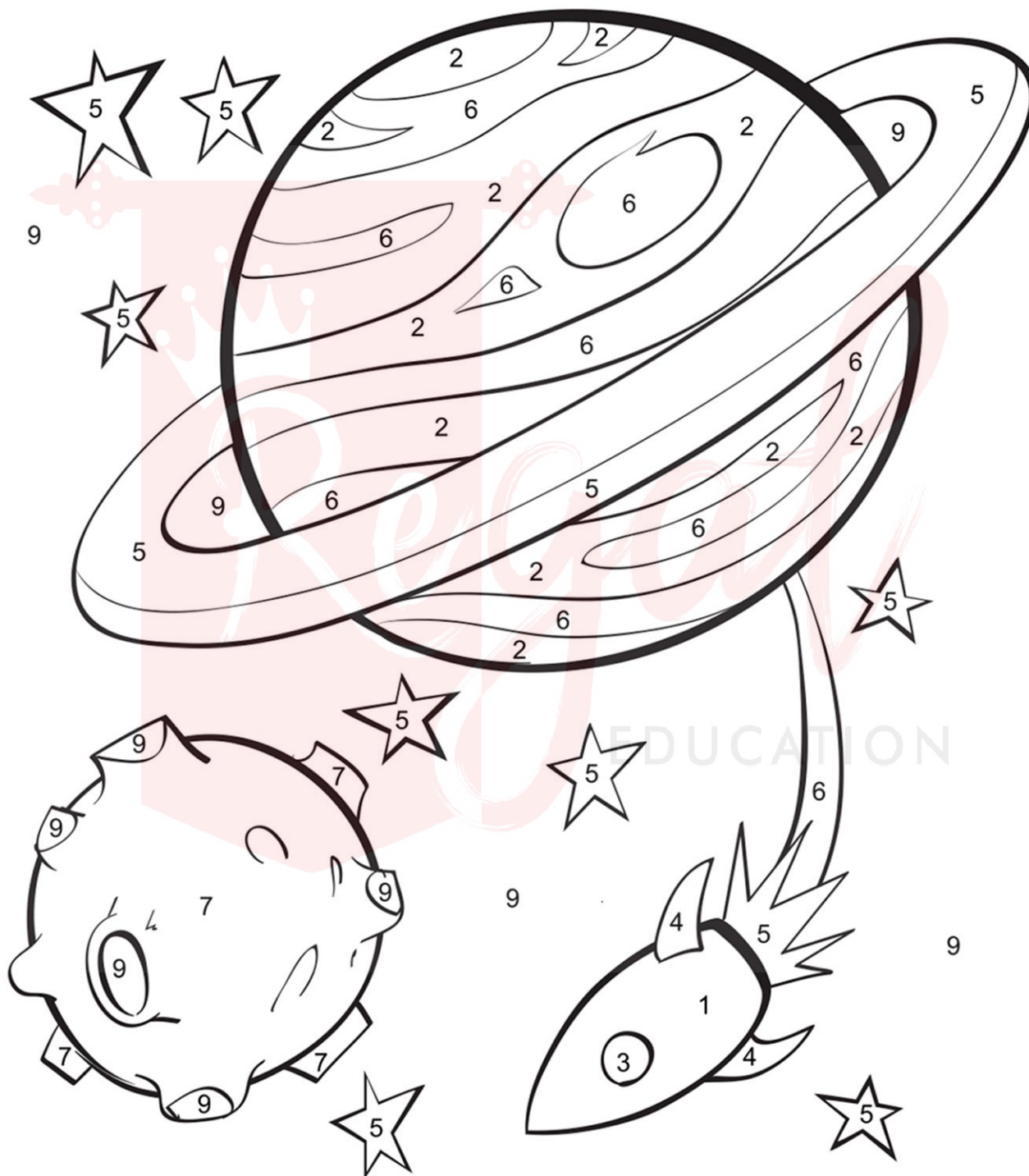
SCAN ME

To do the exercises online, scan the QR codes.



Color by Number!

- | | |
|-----------|-----------|
| 1. Blue | 5. Yellow |
| 2. Brown | 6. Orange |
| 3. Purple | 7. Grey |
| 4. Red | 9. Black |



Find these words:

ROCKET
PLANET
ASTRONAUT
MISSION
SKYLAB
TELESCOPE
GALAXY
ECLIPSE
OXYGEN

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

WORD SCRAMBLE



nsu



rjptuie



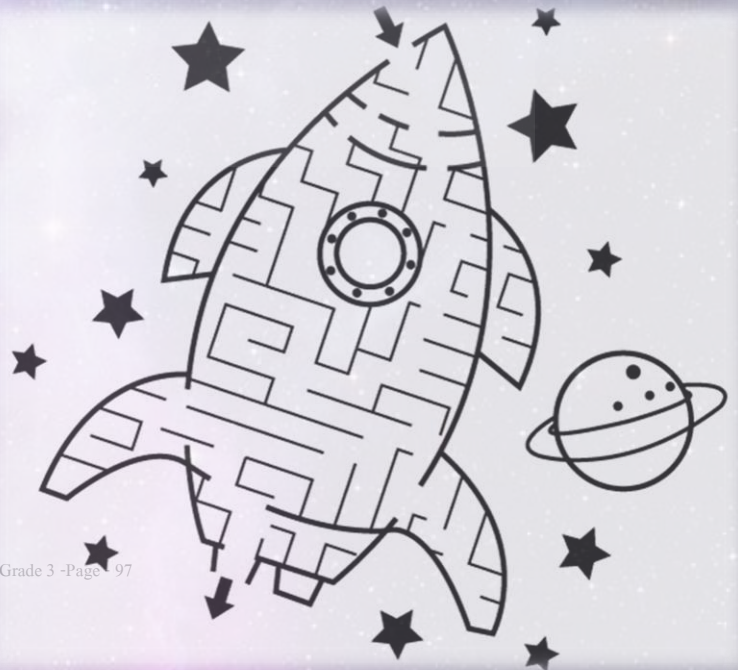
htaer



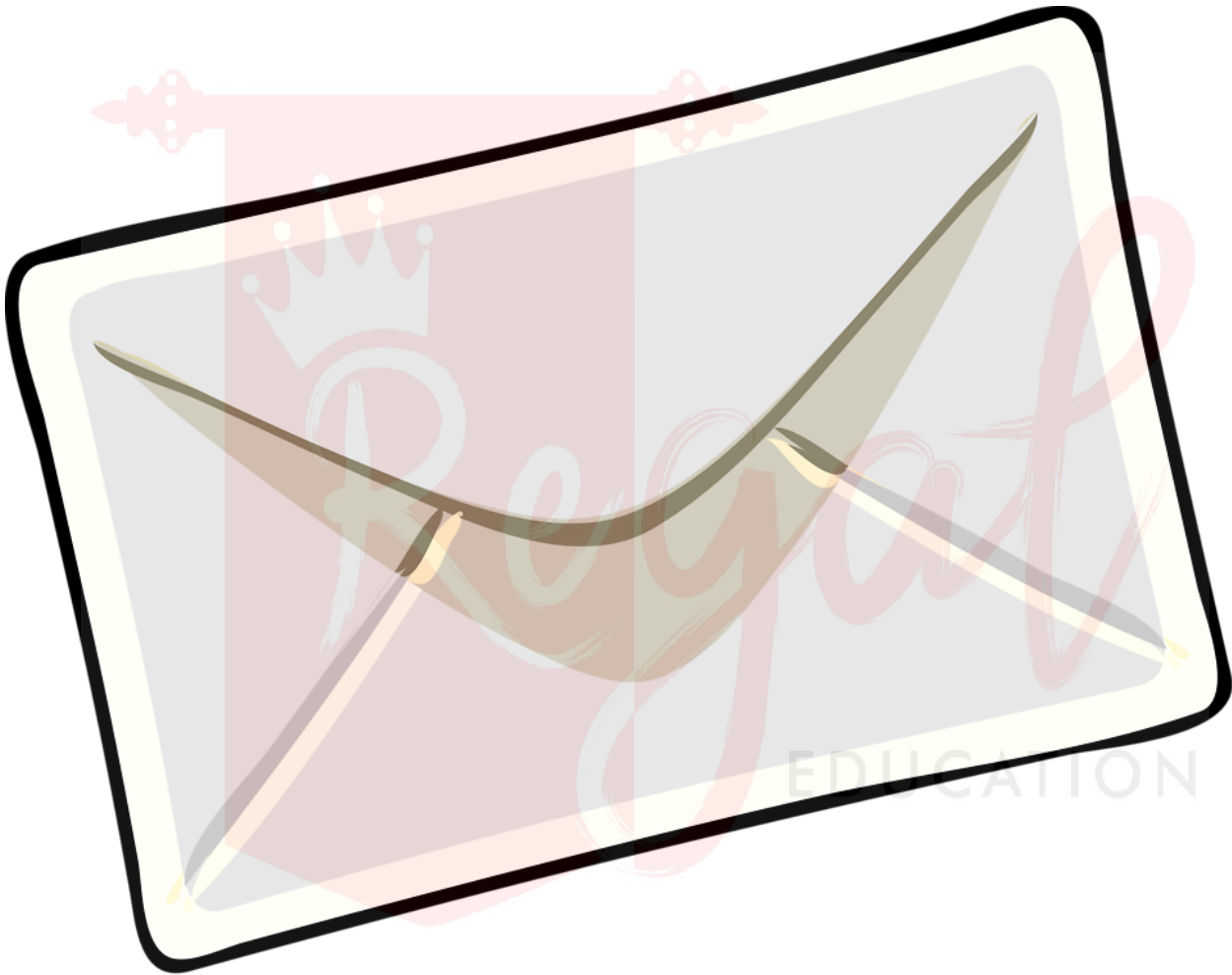
epnuten



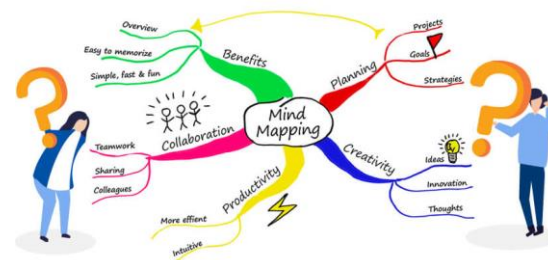
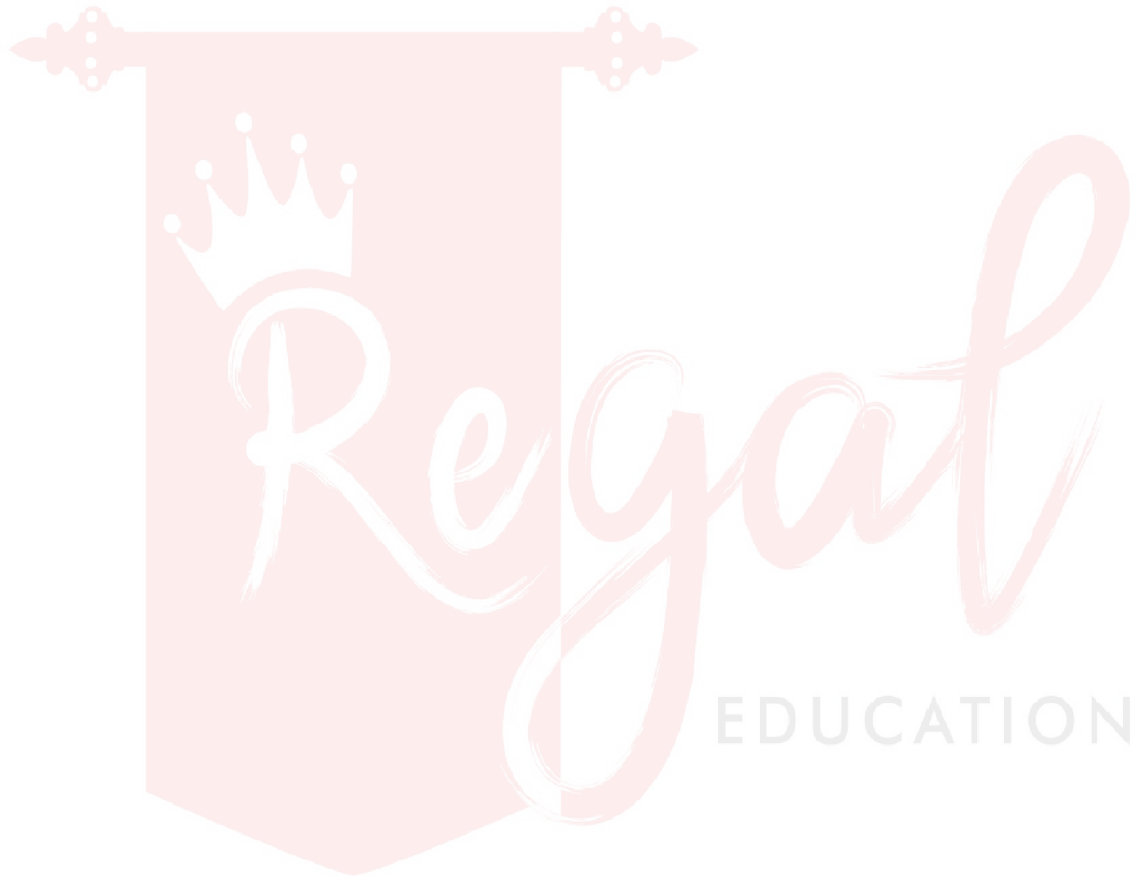
rsautn



Glue an envelope for the flashcards here.

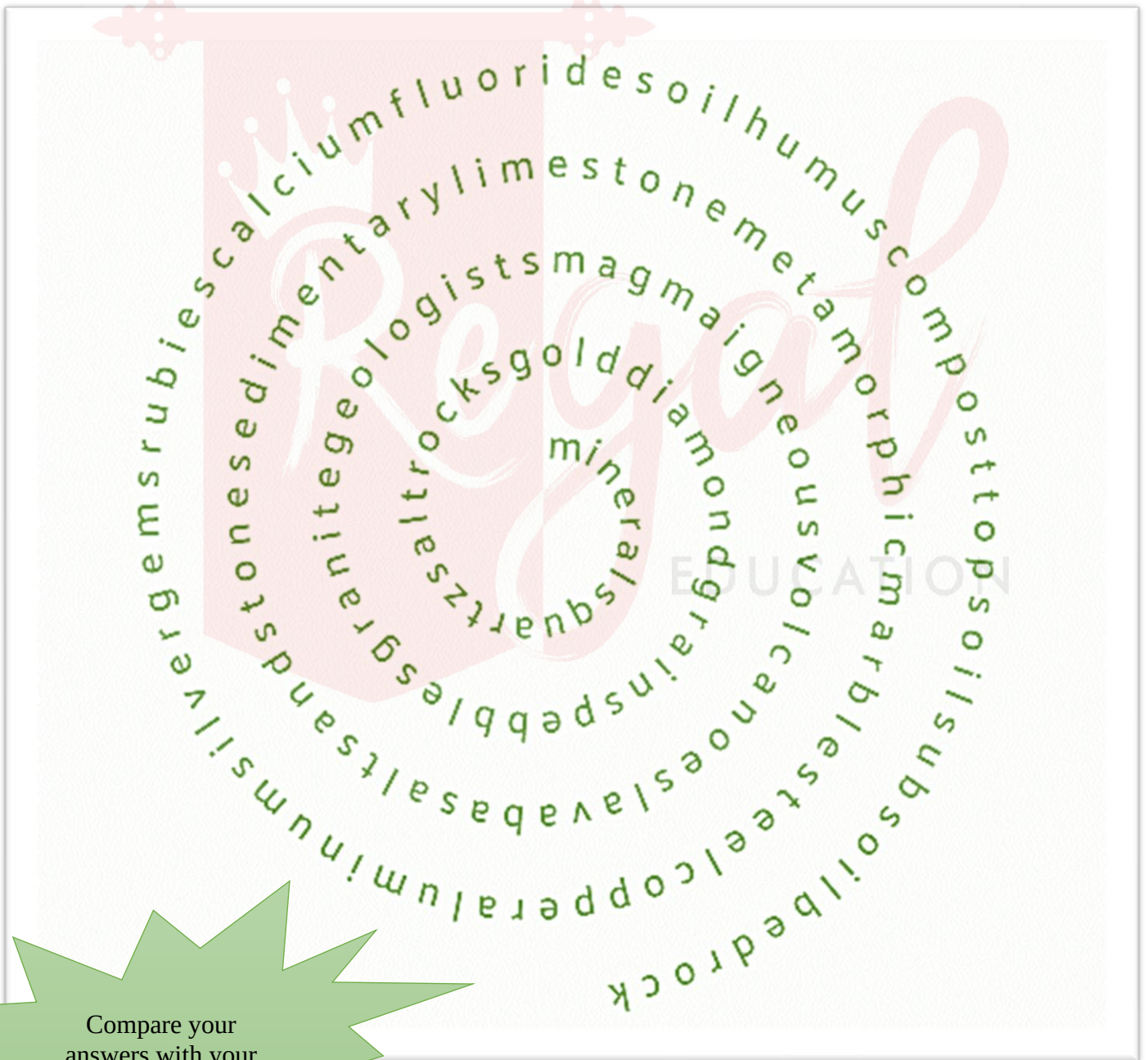


Create a mindmap of the most important things you have learned.
You can work alone or with friends. If you don't know how to make a
mindmap, scan the QR code.



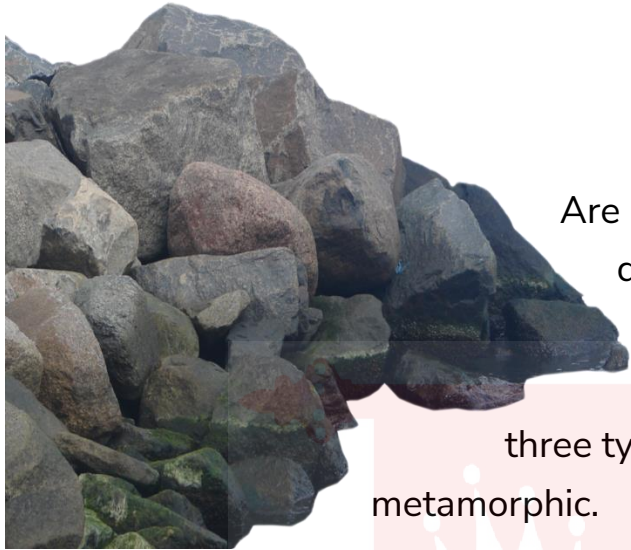
Find and circle the words in a
WORD SNAIL.

Unit 8



Compare your answers with your friends`.

Rocks



Are all rocks the same? No way! Rocks can be different shapes, sizes, textures, and colors.

There are 3 different types of rocks that can affect what a rock looks and feels like. The three types of rocks are sedimentary, igneous, and metamorphic.

Sedimentary rocks are a mixture of dirt, rocks, mud, shells, and other materials that are on the bottoms of oceans and other bodies of water and get compacted together over many years. Sometimes you can even see different layers in sedimentary rocks. These types of rocks feel grainy, like sand, and are easier to crumble than other types of rocks. Sometimes sedimentary rocks will have plant or animal imprints!

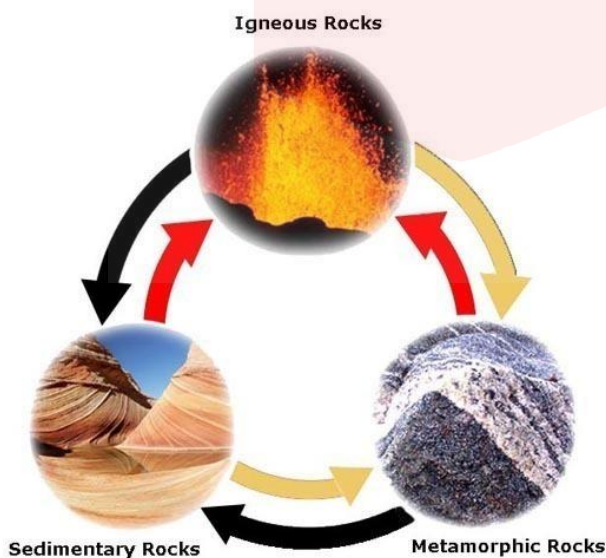


The second type of rock is the igneous rock. These rocks are created from magma that cools and hardens. Many rocks start out as igneous rocks. Igneous rocks have glass crystals filled with minerals in them. They do not usually have layers and are very smooth.

The third type of rock is the metamorphic rock. These rocks are formed when the other types of rocks are subjected to intense heat and pressure to change them. Metamorphic rocks are hard and smooth, like igneous rocks.



Just like plants and animals have a life cycle, rocks can go through a rock cycle! Many rocks start from magma or lava, so they are igneous rocks. The igneous rocks could get broken up in a river or stream and settle to the bottom of a lake. Over thousands or millions of years, the broken-up rocks could get compacted into a sedimentary rock. The sedimentary rock could get exposed to intense heat and change to a metamorphic rock. Then the metamorphic rock could get covered by many other rocks and end up deep in Earth's crust. It may melt and turn into magma, and the cycle could start over again.



The rock cycle is different than a life cycle of a plant or animal, though, because a rock doesn't have to go through the cycle in order, and it may not go through all the stages. Even though there are only three different types of rocks based on how they're formed, each type has many different subcategories of rock. For example, obsidian, granite, and basalt are three

types of igneous rocks. This is why there are so many different colored rocks. Many people love to collect rocks because of how different each one can be.



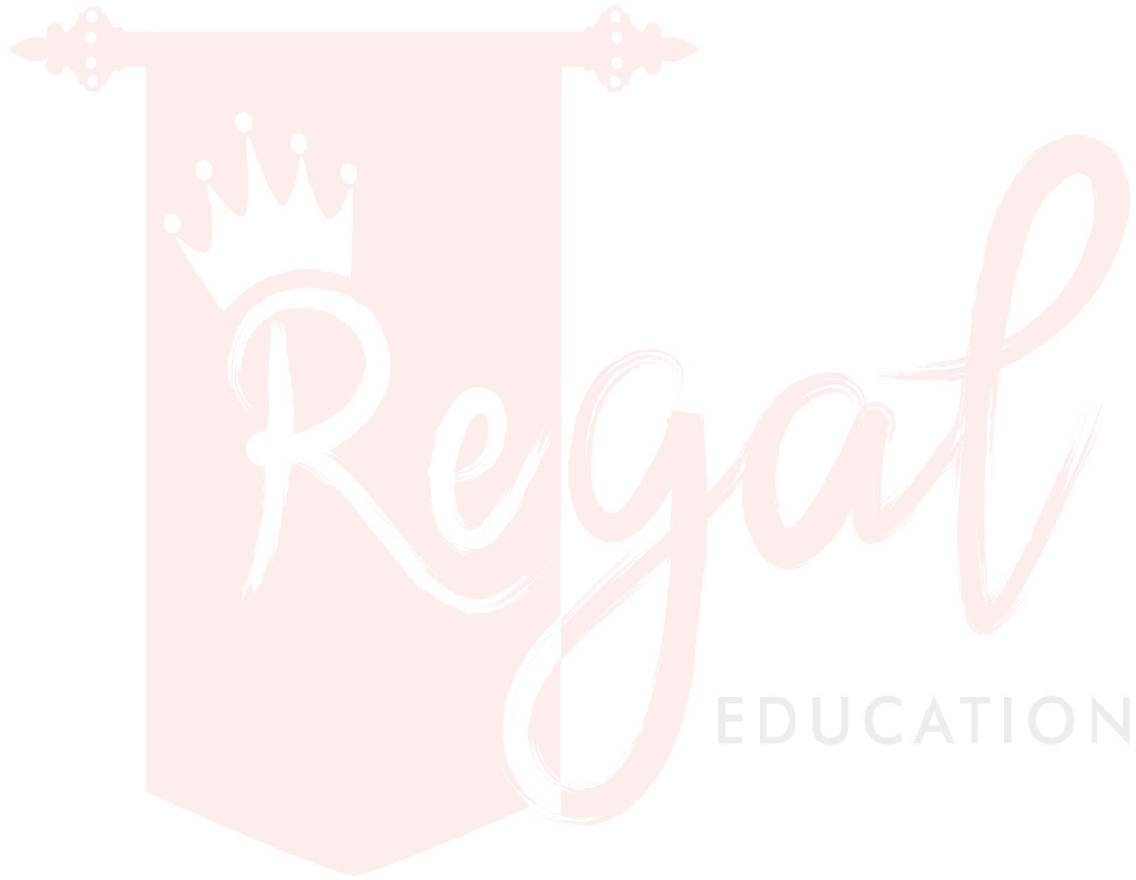
1. What are sedimentary rocks? Use the text but explain in your own words.

2. What are the three types of rocks?

3. How are life cycles and the rock cycle different?

4. Do you think all sedimentary rocks look the same? Why or why not? Explain your answer. Give examples.

Use the text. Draw a life cycle of a rock. Be creative. Compare your answers with your friends`. You have a basic diagram in the text. Use it as an example and extend.





Work with friends or alone. Next to each word, write down 2-3 key words. Compare your answers with the answers of other groups or friends.

minerals	
quartz	
salt	
rocks	
gold	
diamond	
grains	
pebbles	
granite	
geologists	
magma	
igneous	
volcanoes	
lava	
basalt	
sandstone	
sedimentary	
limestone	
metamorphic	
marble	

A key word is very important word that will immediately help you the remember a phrase or a term.

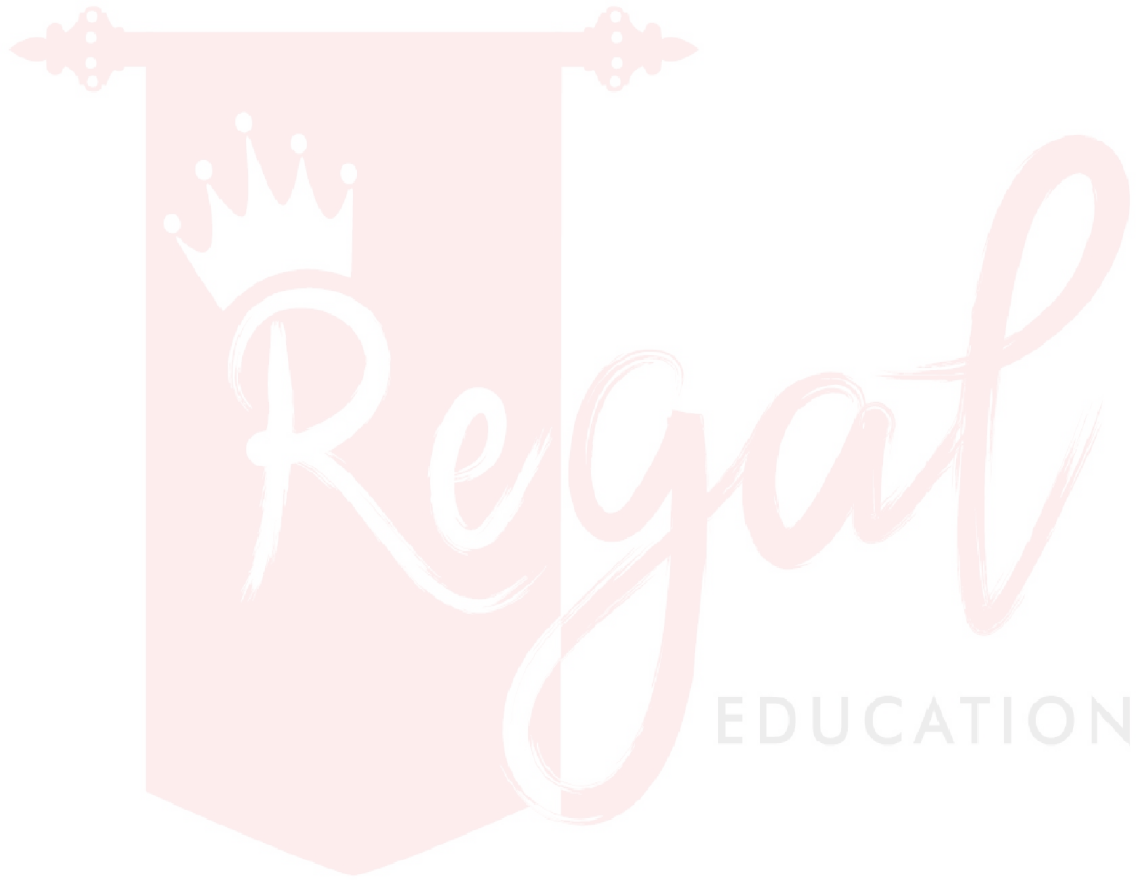
steel
copper
aluminum
silver
gems
rubies
calcium
fluoride
soil
humus
compost
topsoil
subsoil
bedrock

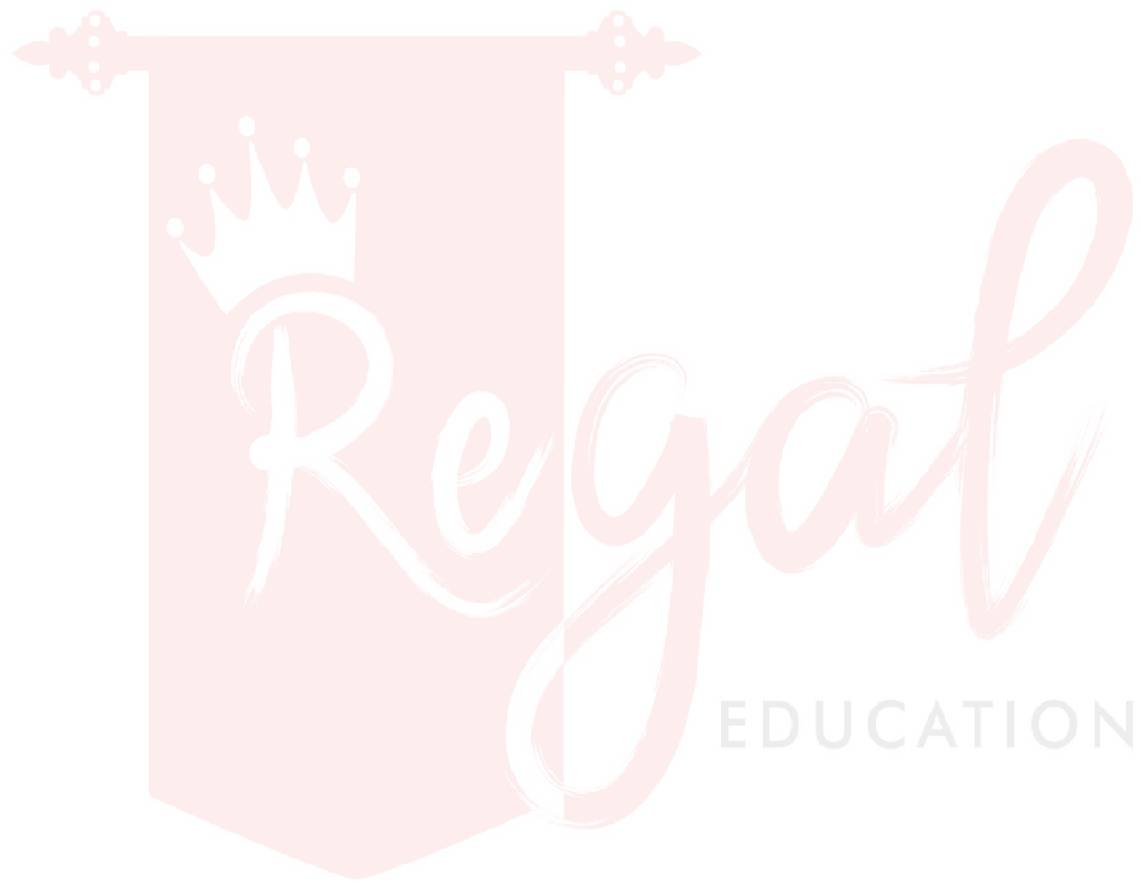


To play online, scan the QR codes.



Create a mindmap of the most important things you have learned.
You can work alone or with friends. If you don't know how to make a
mind map, scan the QR code.





Unit 9

- ❖ Cut out the vocabulary cards.
- ❖ Check how many words you remember.
- ❖ At the back of each card write down any information you find to be important about this word.
- ❖ Compare your notes and your friends`.
- ❖ Play with your friends.
- ❖ Mix all the cards together.
- ❖ Draw (take) a card. Read the word and try to guess what is written at the back of the card.
- ❖ Read what is written at the back of a card and try to guess the word.

You can make up your own rules. Write them down here.

Atmosphere

Water vapor

Temperature

Thermometer

Air pressure

Barometer

Anemometer

Sea breeze



Land breeze

Precipitation

Sleet

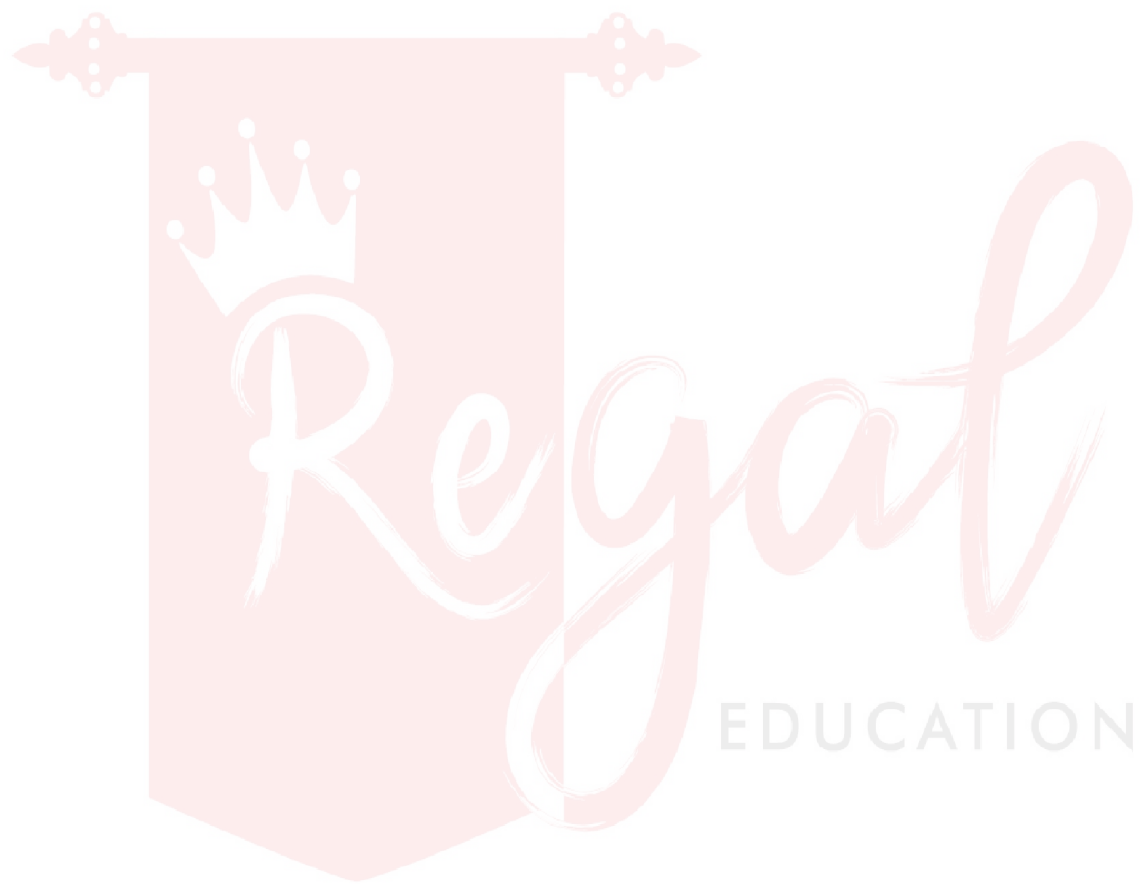
Snow

Hail

Water cycle

Evaporation

Condensation



Meteorologists

Weather station

**Weather
forecast**

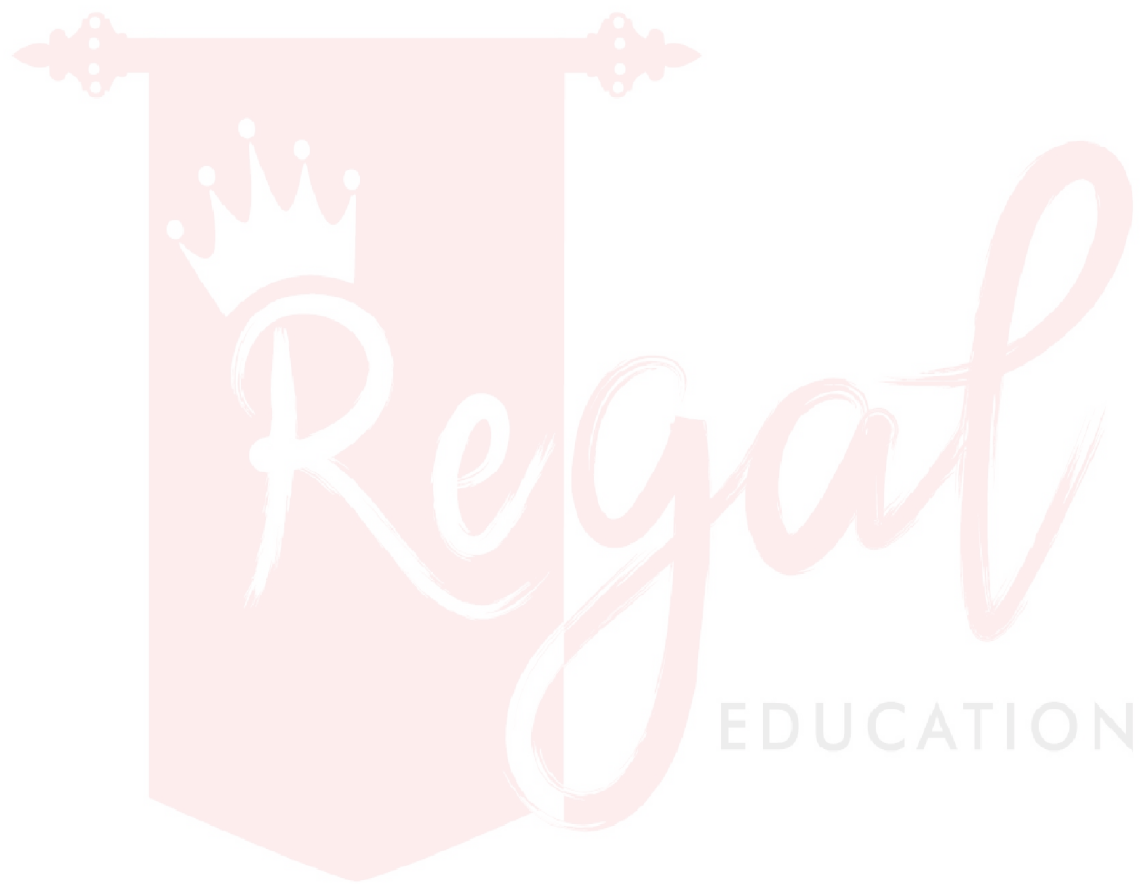
Weather radars

**Extreme
weather**

Thunderstorm

Hurricane

Tornado



Blizzard

Summer

Fall

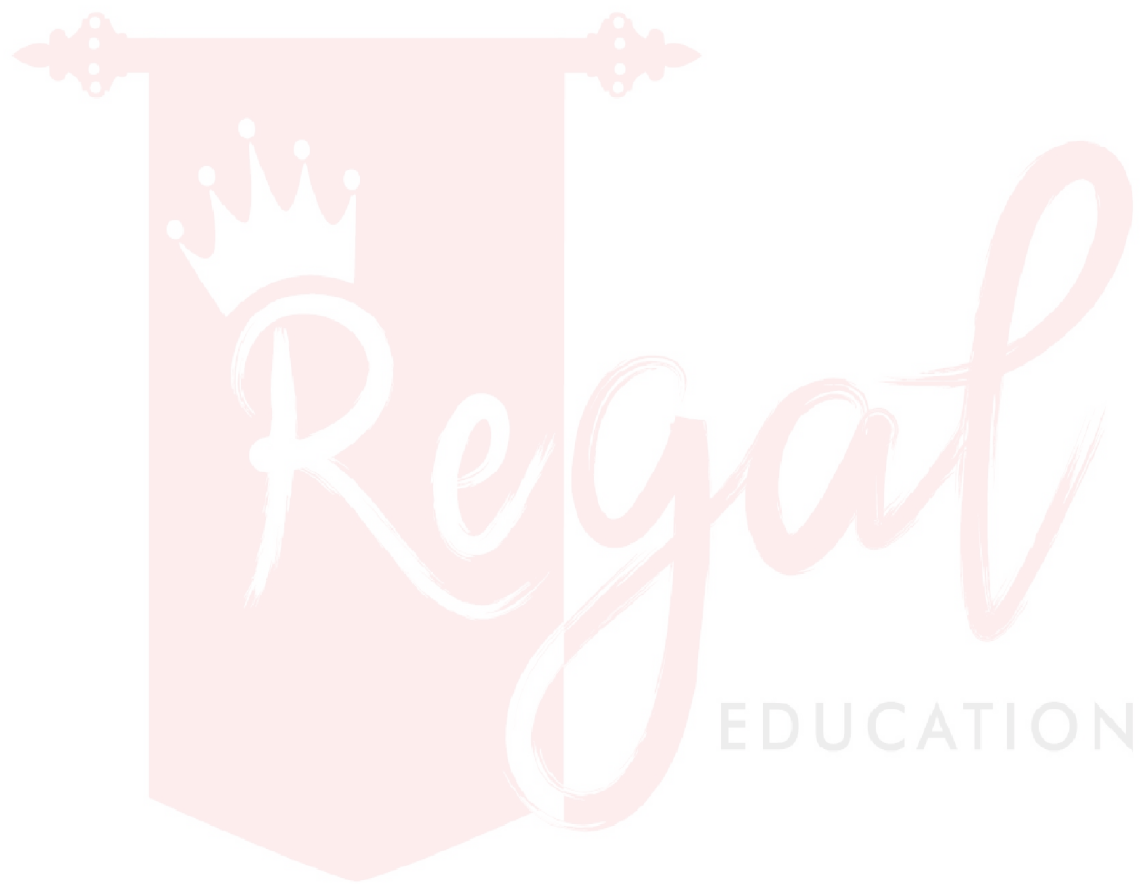
Winter

Spring

Climate

Tropical climate

**Temperate
climate**



**Continental
climate**

Coast climate

Alpine climate

Polar climate

Climate change

**Greenhouse
effect**

EDUCATION



What is the difference between WEATHER and CLIMATE .
Work alone or with friends. Write each statement in the
diagram. Compare your answers with others`. Be ready to
prove your point.

short term
temperature
reported as a forecast
can change very slowly
can be shown on a map
in one place
daily conditions

long term
precipitation
reported as averages
changes quickly
you can find patterns in it
over a large area
average conditions

Weather

Climate

Weather tells you what is going on in a place at a certain time. Climate tells you the pattern of weather in a place over a long period of time.

For each statement, write weather or climate.

Compare your answers with others`. Be ready to prove your point.

1. Yesterday it was raining so I took my umbrella with me. _____
2. It is usually rainy here in springtime. _____
3. John's town got two inches of rain last week. _____
4. Utah gets plenty of snow in the winter. _____
5. The wind is blowing from the east at 15 miles per hour. _____
6. Today, the temperature will be higher in New York than in Los Angeles. _____
7. The Arctic has long, cold winters and short, cool summers. _____
8. Summers are warm enough here to wear shorts and sandals every day. _____

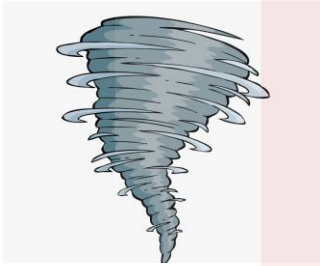
Work alone or with friends. Think of the effect of extreme weather. Compare your answers with the answers of your friends and classmates. Be ready to prove your point.

Cause
Lightning

Effect

- ❖ starts a forest fire,
- ❖ plants and trees are burned, animals must leave or die, homes are burned, people must flee, lots of smoke.

Tornado



Effect

Hurricane



Effect

EDUCATION

Blizzard



Effect

Tsunami



Effect

Heat wave



Effect

Cold wave



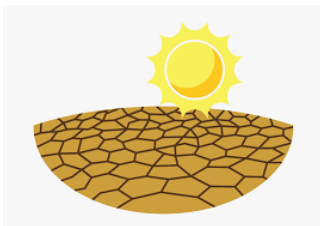
Effect

Sandstorm



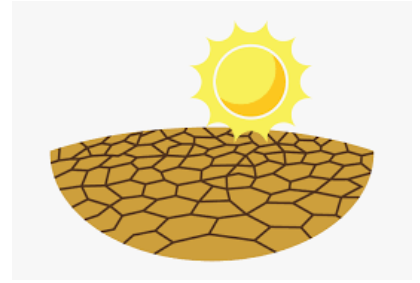
Effect

Drought

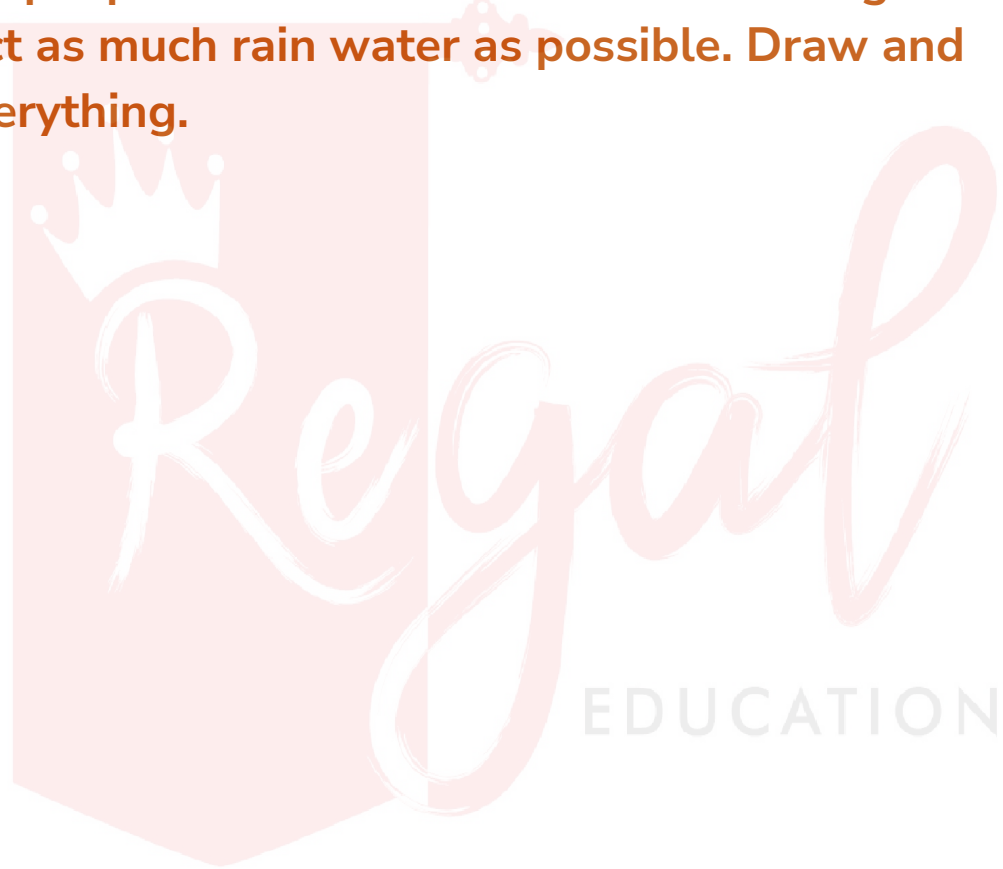


Effect

It hasn't rained much lately in the village. The people need water for drinking and cooking. The weather forecast says they will get a little bit of rain next week, then no rain for several months.



What do people need to do when it rains? Design a way to collect as much rain water as possible. Draw and label everything.



The De-winter family loves the snow, so they want to build a house in a village in Alaska (think of the climate).

What do they need to think of when they are building a house?

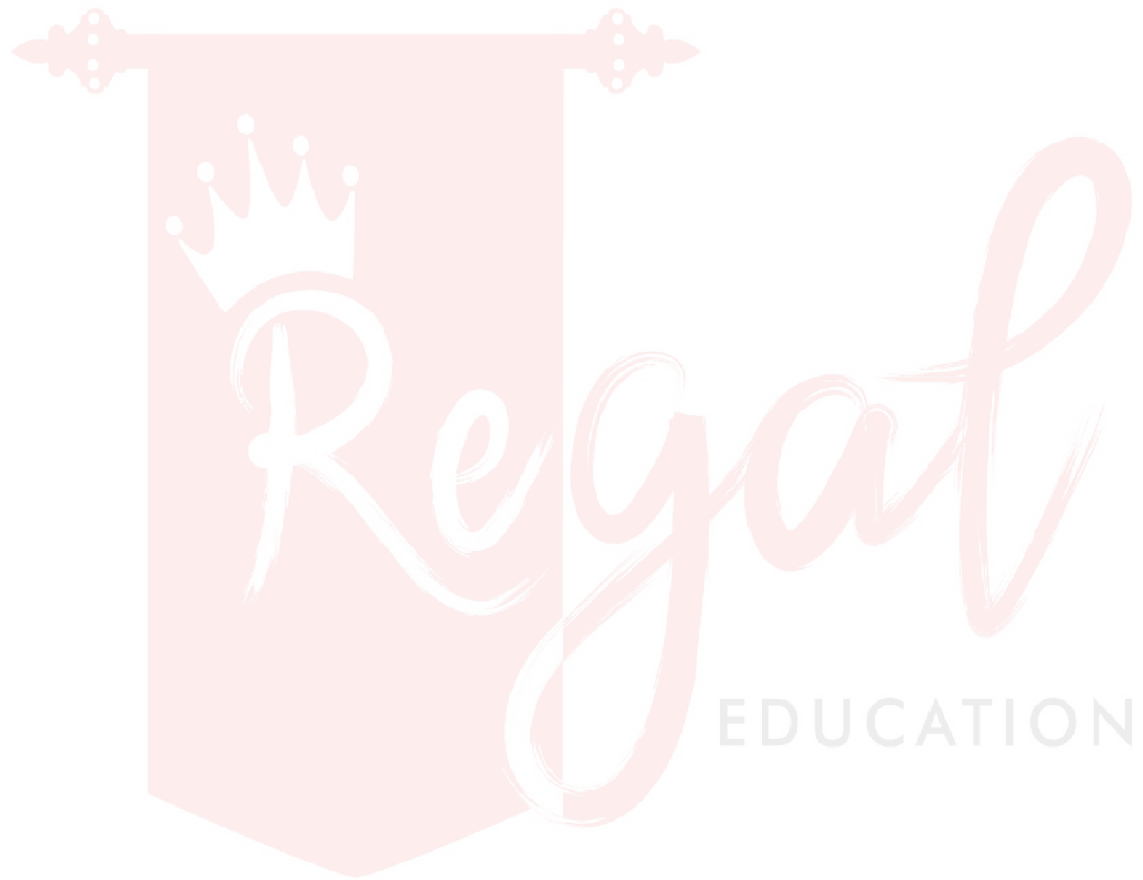
What extreme weather conditions will they face?

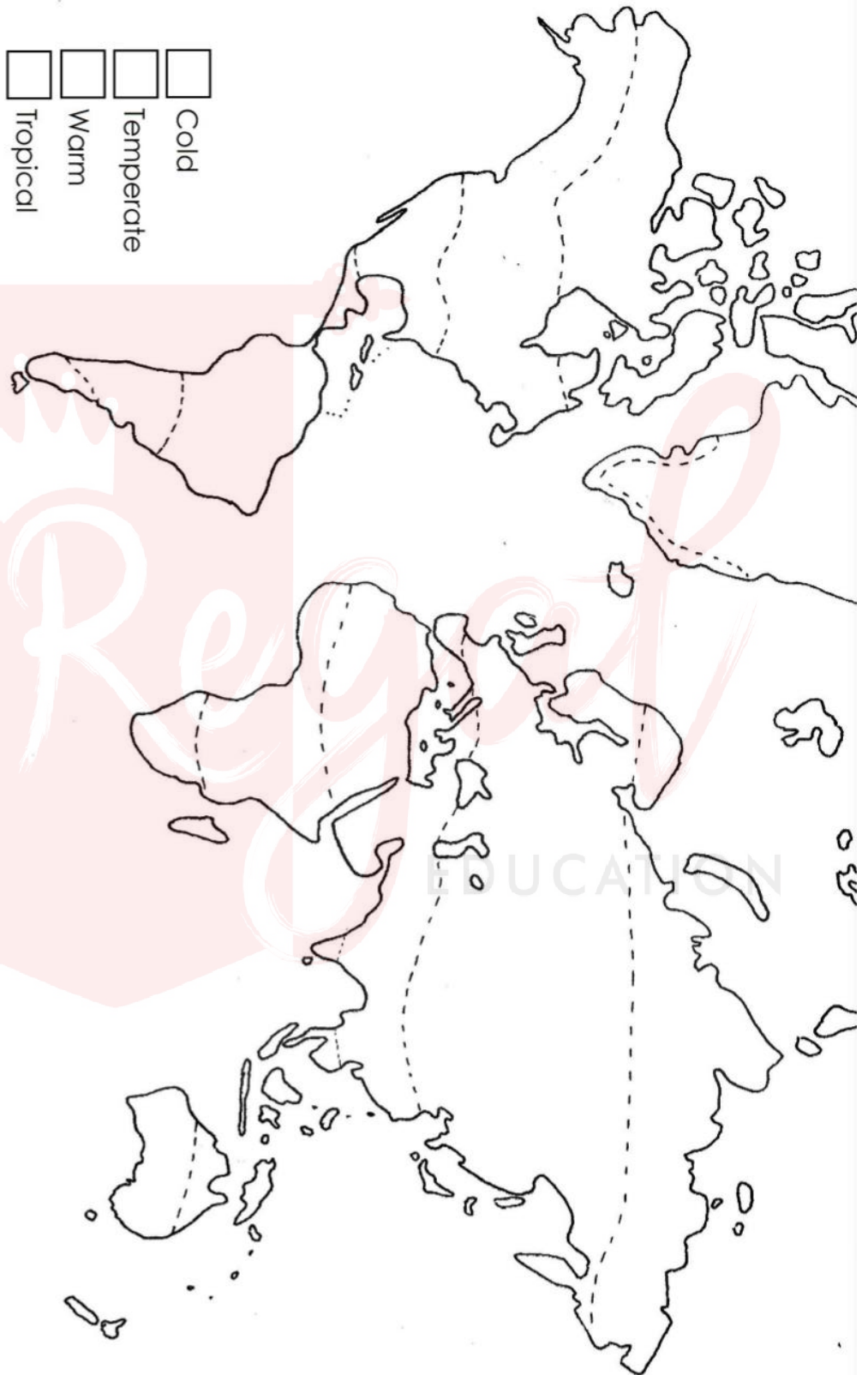
Design a house that will protect them.

Draw and label it.



Where do you want to live? What is the climate there? What extreme weather conditions will you face? Draw a house of your dream and label everything.



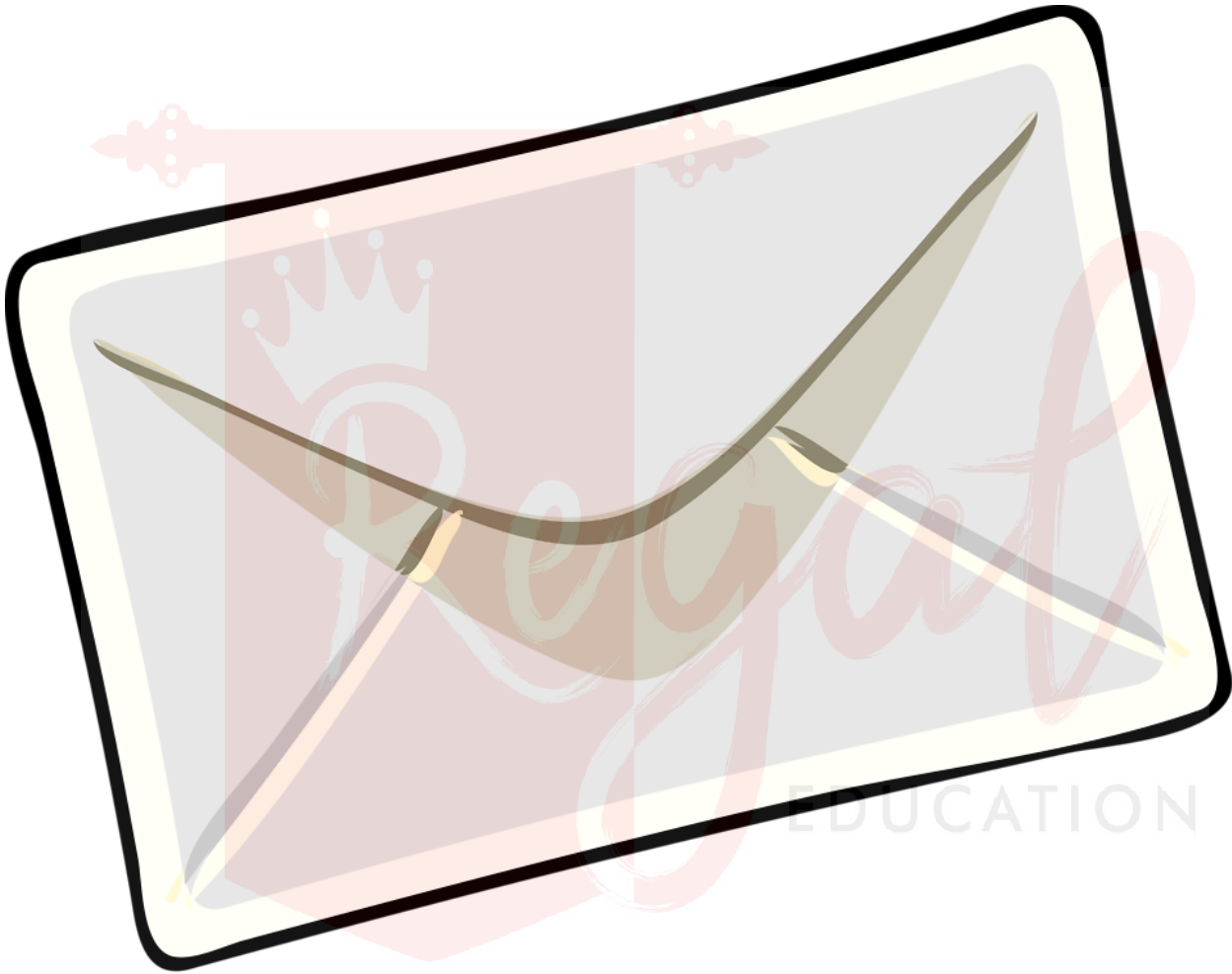


Color the climate zones.

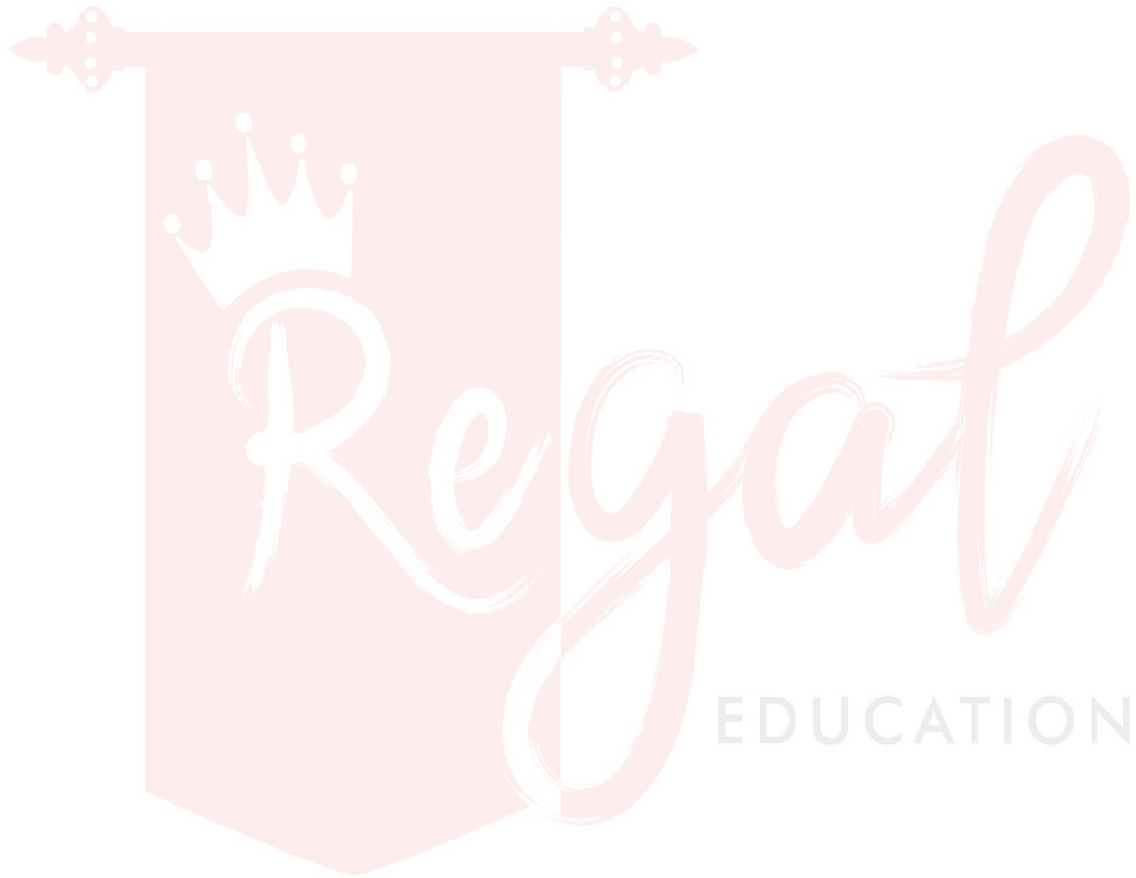
Find your country / city. What climate zone are you in?

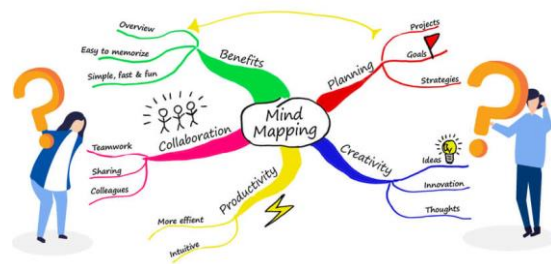
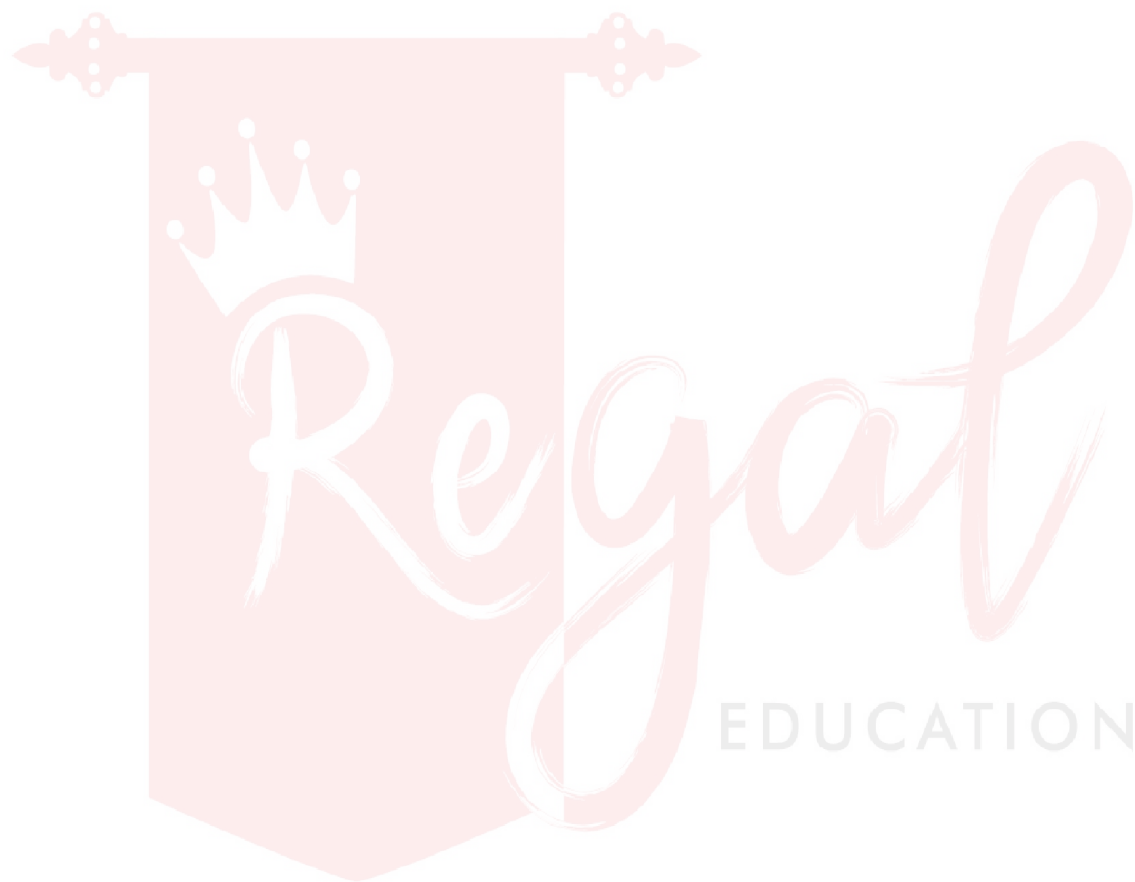
Compare your answer with you friends`.

Glue an envelope for the flashcards here.



Create a mindmap of the most important things you have learned.
You can work alone or with friends. If you don't know how to make a
mind map, scan the QR code.





Match.

Particles are not rigid.

Gas

Unit 10

It cannot be compressed.

Takes the shape of the container.

It does not have a fixed shape and structure.

It has a definite mass.

The particles are closely packed.

Solid

It does not have a definite mass.

It has a definite mass.

Particles are loosely packed.

It can be easily compressed.

The particles are not rigid.

The particles are highly rigid.

It cannot be compressed.

It has a fixed shape and structure.

Liquid

The particles are tightly packed.

toy

rain

milk

wind

river

belt

car

juice

book

oxygen

helium

watch

water

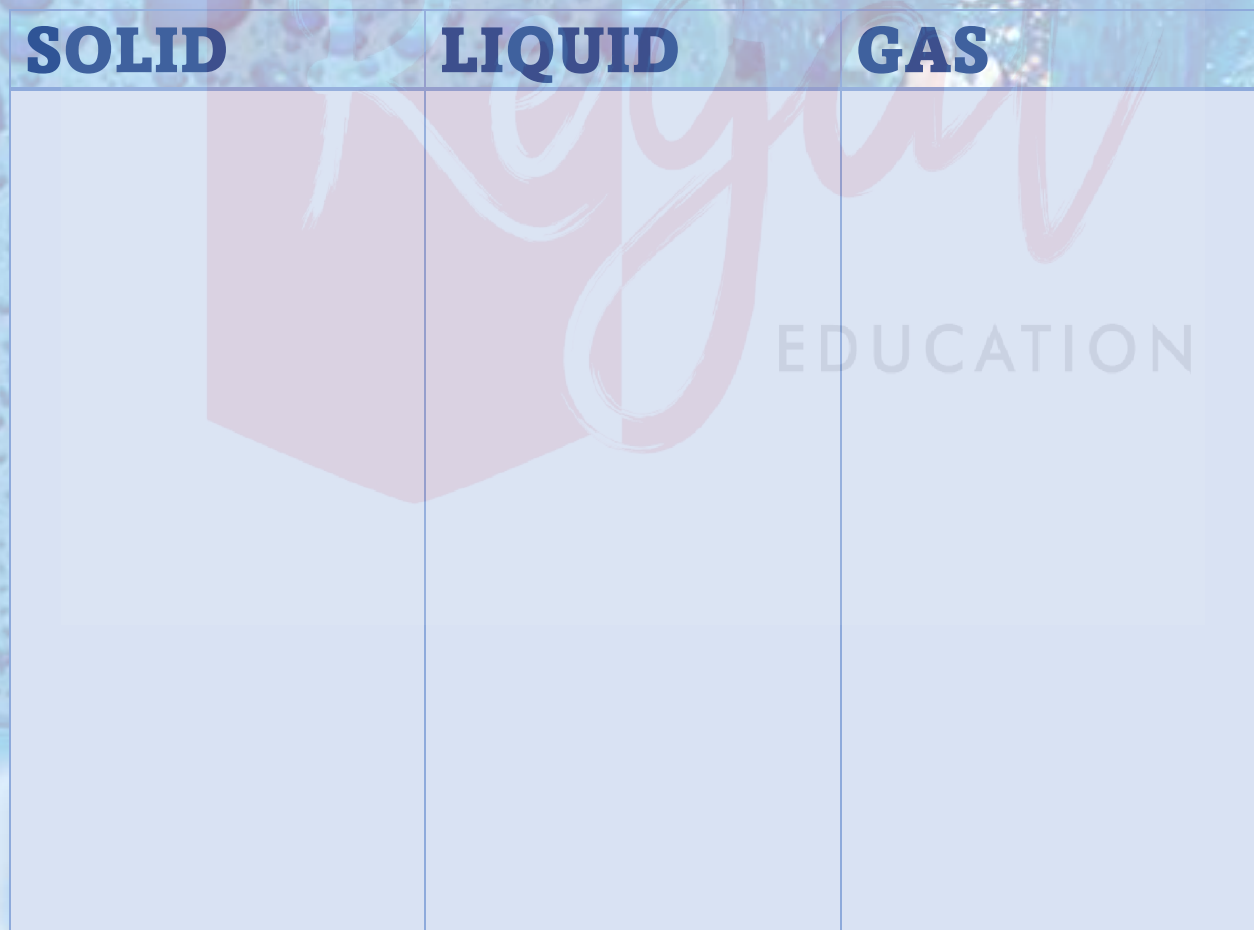
rock

oil

smoke

steam

fog

SOLID	LIQUID	GAS
		
EDUCATION		

Fill in the blanks.

gas	shape	solids	varies
three	volume	definite	density
steam	particles	matter	liquids

1. There are _____ states of matter
2. A solid has fixed size and _____.
3. The mass of liquid _____ with different conditions.
4. Solids have _____ volume.
5. _____ occupies space.
6. The atoms move around randomly in _____.
7. _____ can flow.
8. _____ cannot flow.
9. The _____ are tightly packed in solids.
10. _____ is an example of gas.

Key Words Train

Make your own word-train.

Remember. The last letter of a previous word is the FIRST letter of a new word.

To begin with, create a list of all the words you would like to use.

Then, start putting them together.

You can work alone or with friends.

Compare your train with others`.

For example:

GaSolIDensEvaporatE.....



To play online, scan the QR code.



SCAN ME



SCAN ME



SCAN ME



SCAN ME

- ❖ Cut out the vocabulary cards.
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- ❖ Read what is written at the back of a card and try to guess the word.

You can make up your own rules. Write them down here.



Force

Position

Distance

Direction

Motion

Time

Speed

Push



Pull

Spring
balance

Contact
forces

Friction

Non-contact
forces

Magnetic
force

Magnet

North pole



South pole

Repel

Attract

Electrical
forces

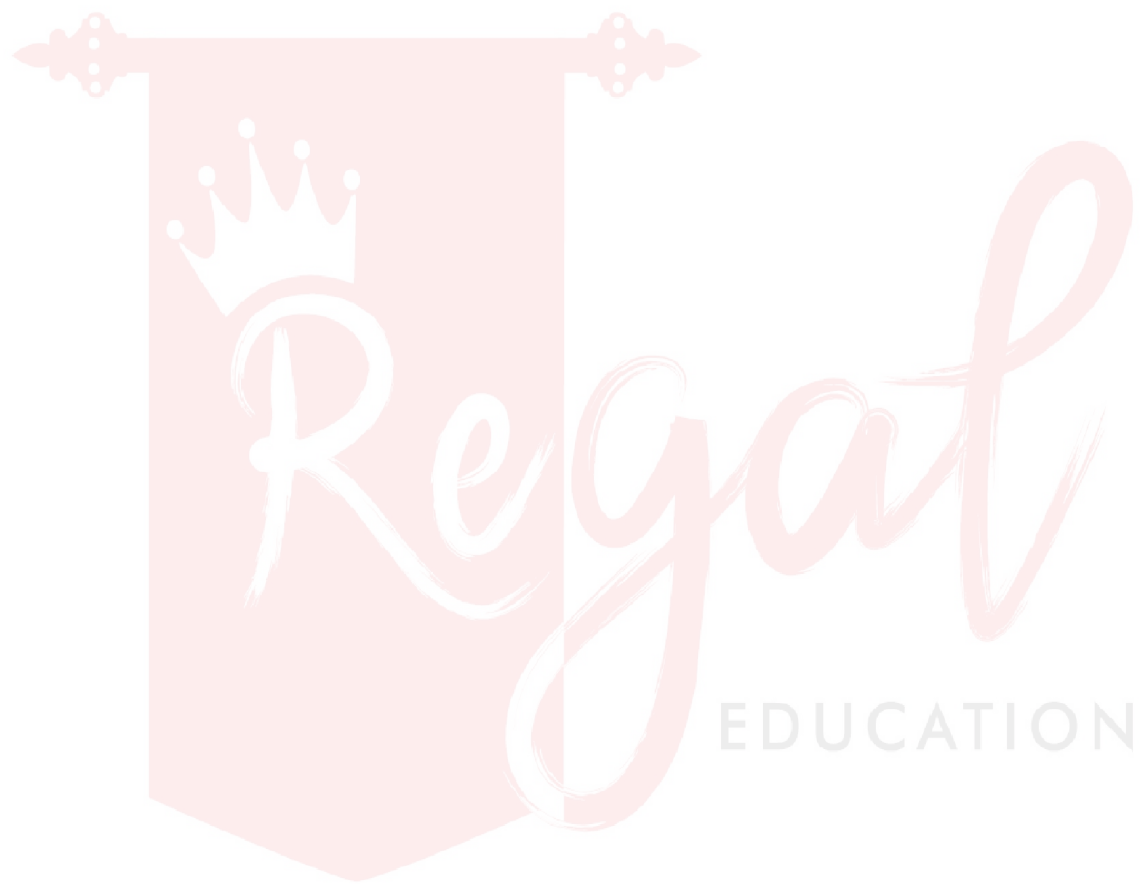
Gravity

Mass

EDUCATION

Balanced
forces

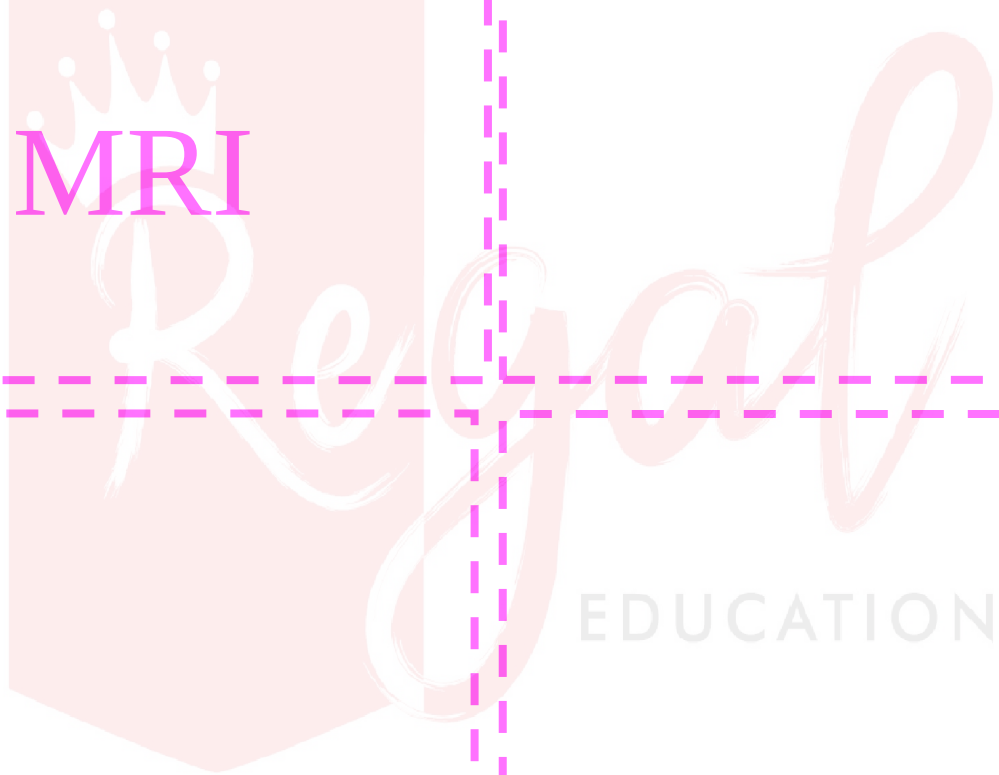
Unbalanced
forces

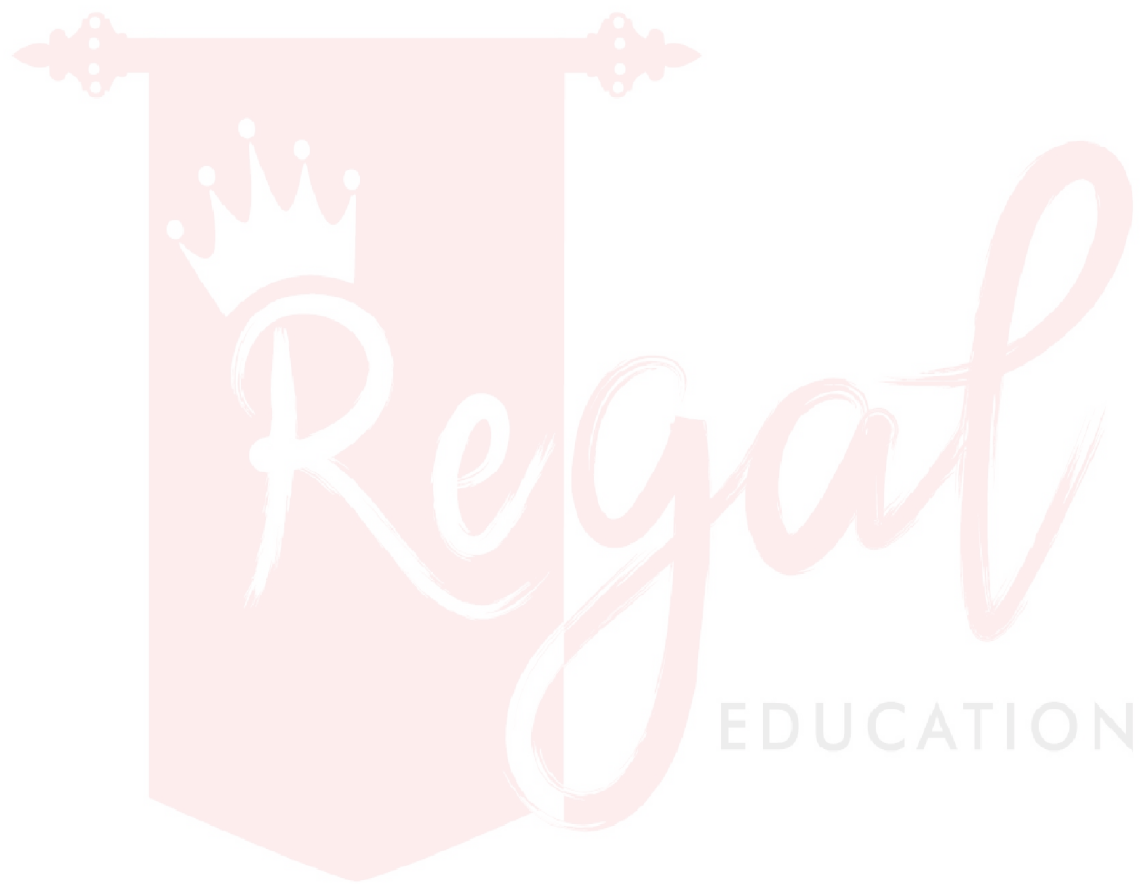


Zero net
force

Predict

MRI





Gravity is what keeps us from floating away in space. It's what makes balls fall back down to the Earth after we've thrown them, what controls the tides of the oceans, and what makes the planets orbit around the Sun.

Gravity is a strong force that pulls things together. Everything that has matter generates gravity, from a tiny speck of dust to a huge elephant. Even you generate gravity!

The bigger the object is, the bigger the force of gravity. That's how the Sun can pull all the planets of our solar system close to it.

The closer objects are to each other, the stronger their gravitational pull is. The Sun has much more gravity than Earth, but we stay on Earth's surface instead of being pulled to the Sun. This is because we are much closer to Earth.



Who discovered gravity?

Legend has it that a young Isaac Newton was sitting under an apple tree when he was bonked on the head by a falling piece of fruit. Isaac then suddenly came up with his law of gravity.

In reality, things didn't go down quite like that. Newton, the son of a farmer, was born in 1642 near Grantham, England, and entered Cambridge University in 1661. Four years later, following an outbreak of the bubonic plague,

the school temporarily closed, forcing Newton to move back to his childhood home, Woolsthorpe Manor. It was during this period at Woolsthorpe (Newton returned to Cambridge in 1667) that he was in the orchard there and witnessed an apple drop from a tree. There's no evidence to suggest the fruit actually landed on his head, but Newton's observation caused him to ponder why apples always fall straight to the ground (rather than sideways or upward) and inspired him to eventually develop his law of universal gravitation.

In 1687, Newton first published this principle, which states that "every body in the universe is attracted to every other body with a force that is directly proportional to the product of their masses and inversely proportional to the square of the distance between them". This conclusion became later known as the Newton Law.

Fun facts

- Black holes have the strongest gravitational pull in the entire universe.
- Gravity always pulls, it never pushes.
- In outer space there is zero gravity so you have no weight, this is how astronauts can float.
- Objects weigh slightly more at sea level than at the top of a mountain. This is because the higher you go, the less gravity pulls you.
- We don't feel gravity. We can only feel the effects of trying to overcome it when we jump or fall.
- Every day we are about $\frac{1}{2}$ inch (1.25 centimeters) taller in the morning than at night. This is because, during the day, gravity is pulling us towards the center of the Earth. When we lie down our spine can stretch back to full height again.

Questions

1. What effect does Earth's gravity have on us?

2. **True or false?** Gravity always pulls, it never pushes.

3. **True or False?** The closer objects are to each other, the stronger their gravitational pull is.

4. Which of the following has the strongest gravitational pull?

a. The Sun b. A black hole c. A car d. The Earth

5. Who discovered gravity?

6. In physics, what is weight measured in?

a. pounds b. newtons c. ounces d. kilograms

7. Objects weigh slightly more at sea level than at the top of a mountain. Why is this?

8. On average, how much taller are we in the morning than at night?

a. 2.3m b. 2mm c. 15cm d. 1.25cm

9. What force controls the tides of the oceans?
10. The bigger the object is, the _____ (smaller/bigger) the force of gravity.

Create your own questions. Ask your friends. Compare your answers.



To play online, scan the QR codes.



SCAN ME



SCAN ME

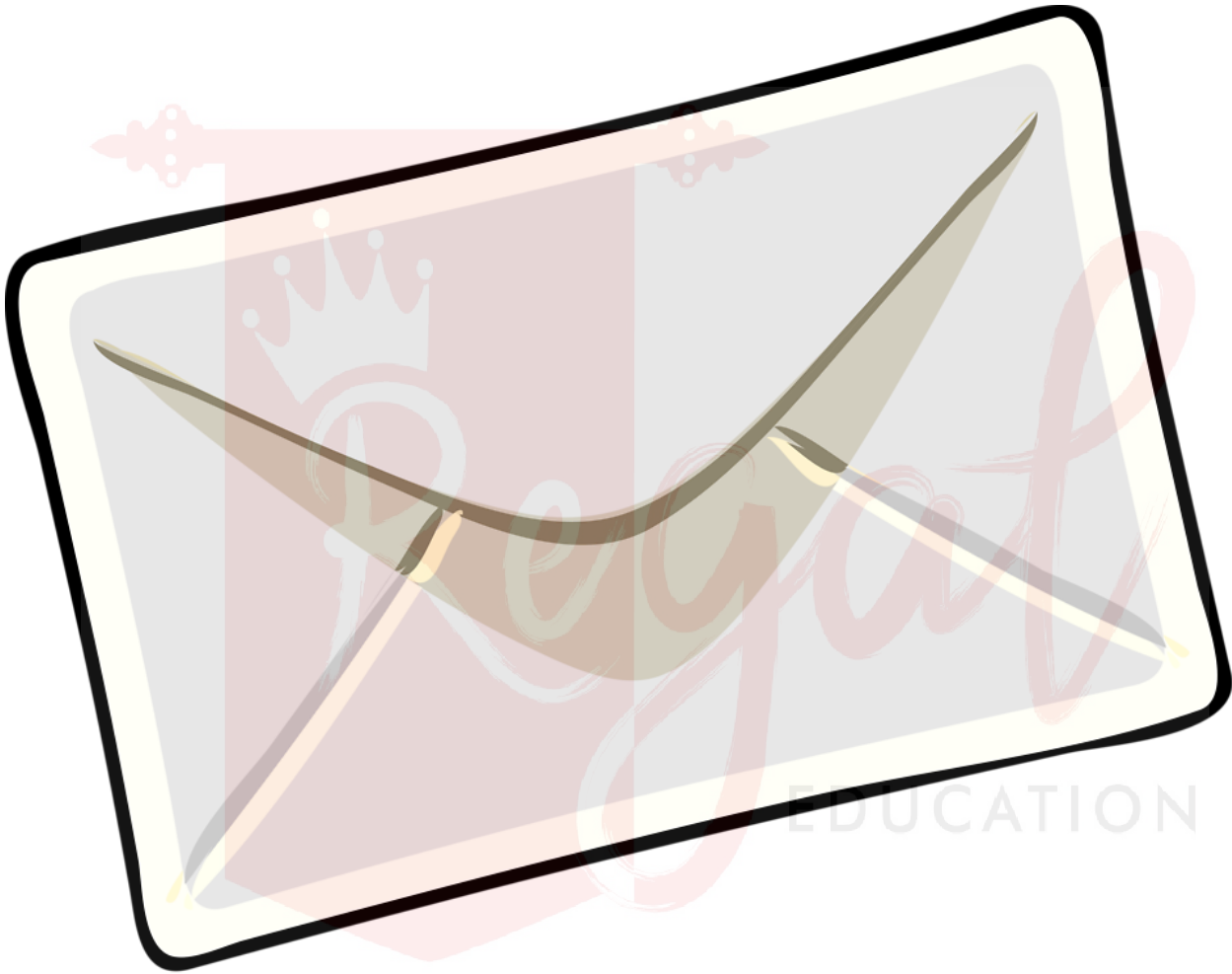


SCAN ME

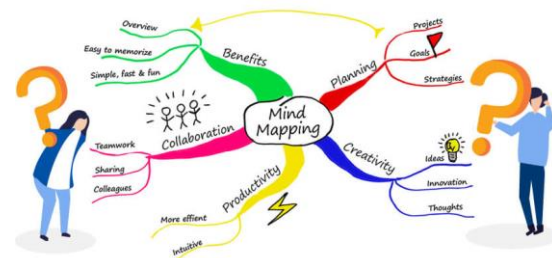
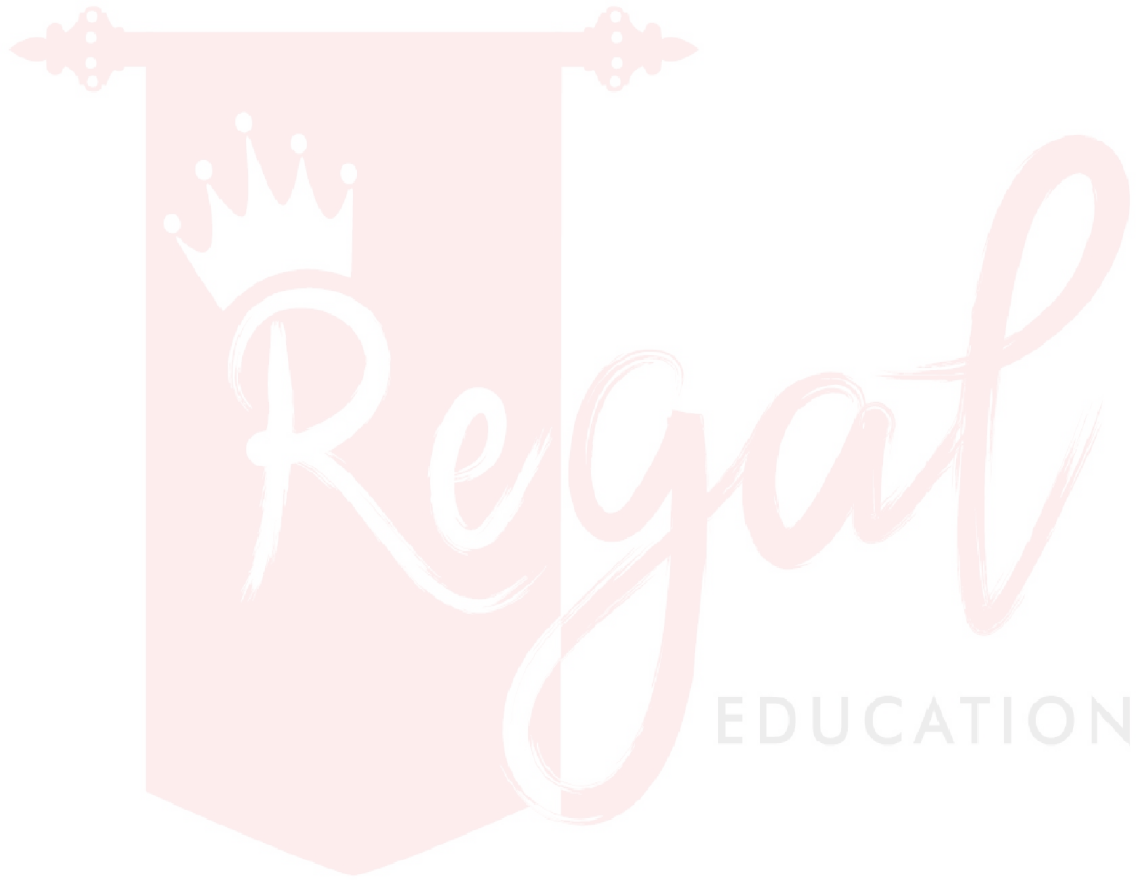


SCAN ME

Glue an envelope for the flashcards here.



Create a mindmap of the most important things you have learned.
You can work alone or with friends. If you don't know how to make a
mind map, scan the QR code.



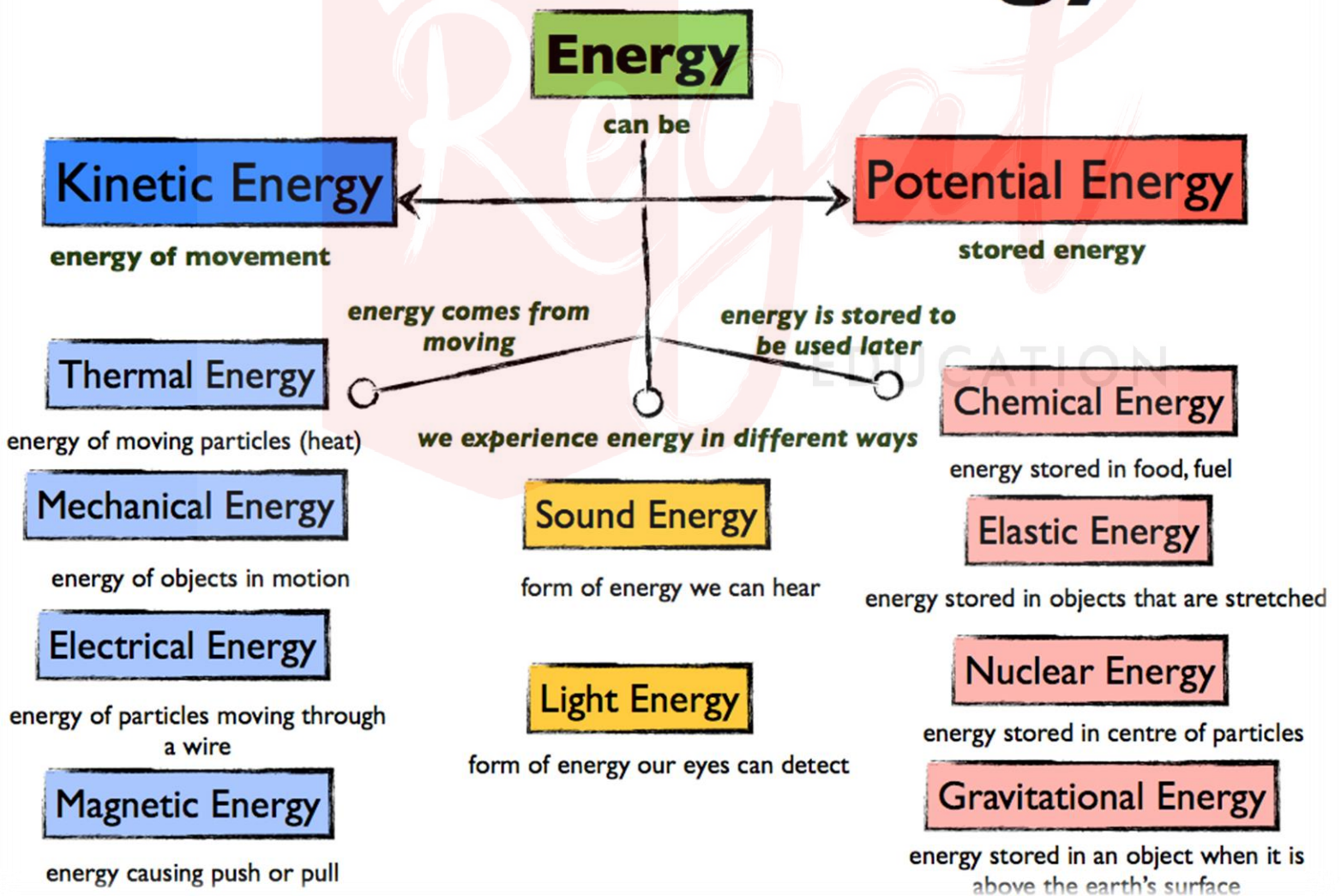
Unit 12

Look at the diagrams. Circle the types of energy that you know.

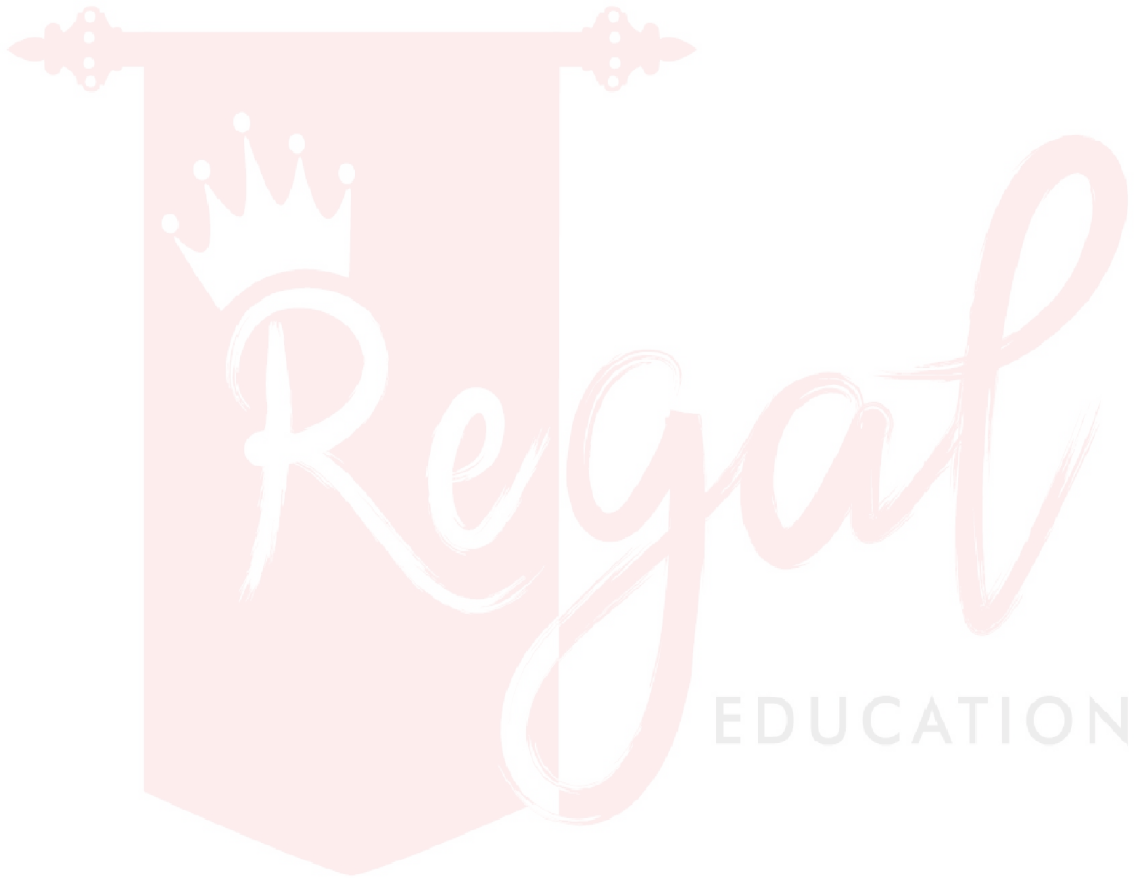
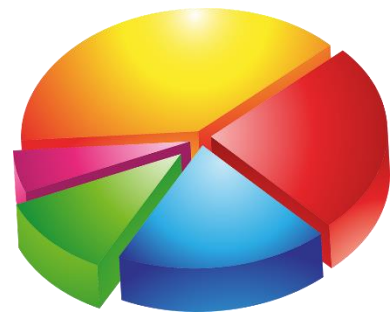
Create your own diagram that shows the forms of energy you use every day.

Work alone or with friends.

Forms of Energy



Create your own diagrams.



Energy

is one of the most basic parts of our universe. We use energy in everything. It lights and warms our homes, offices, streets, etc. It also cooks our food, plays our music, washes our clothes, and charges our smartphones. Household chores become easy with energy.

You can visit your favorite places with energy, too. Our vehicles, trains, planes, and rockets are powered by energy. It also powers machines in factories and tractors on farms.

Our main source of energy is the Sun. The Sun gives us light during the day. It dries our clothes when they're hanging outside on a clothesline. It helps plant grow. When animals eat the plants, the energy is transferred to their bodies, so they are able to move. Our bodies change the energy we receive from food into the energy to do the work. We use this energy for walking, running, reading, etc.

The word energy comes from the Greek word "energia", meaning "at work". Thus, **energy means, "the ability to do work"**.

DIFFERENT FORMS OF ENERGY

1. **MECHANICAL ENERGY** is the energy possessed by an object due to its motion (kinetic energy) or energy due to position (stored energy).

2. THERMAL ENERGY OR HEAT is also a form of energy.

Name 4-5 ways you use heat every day. This energy comes from the motion of tiny particles in matter. The faster the particles move, the warmer the matter can get.

3. LIGHT ENERGY comes from the Sun. Plants use it to make food and scientists use it to create lasers.

4. ELECTRICAL ENERGY is the movement of charged particles, negative (-) and positive (+). It can come from the batteries or power plants. It can also be found in nature.

5. WIND ENERGY. Wind can also be used to do work. The kinetic energy of the wind can be changed into other forms of energy, either mechanical energy or electrical energy.

6. NUCLEAR ENERGY is formed when tiny particles called atoms split apart (fission) or join together (fusion). The Sun's energy is produced from nuclear reaction.

7. **CHEMICAL ENERGY** is stored in the particles that make up food, fuel, and other matter. The food you eat gives you chemical energy which allows you to walk, run, and move.

In your own words, explain each type of energy and give examples how you use it every day.

CHEMICAL ENERGY	
NUCLEAR ENERGY	
WIND ENERGY	
ELECTRICAL ENERGY	
LIGHT ENERGY	
THERMAL ENERGY OR HEAT	
MECHANICAL ENERGY	

Transformation of Energy Directions.

Use the following forms of energy to fill in the transformations below: mechanical, electrical, thermal, radiant, chemical, nuclear, and sound.

The first one has been done for you.

Use the information you have learned from the text.

Description:	ORIGINAL ENERGY FORM	FINAL ENERGY FORM
1. Electric motor	electrical	mechanical
2. A battery that runs a moving toy		
3. A solar panel on the roof of a house		
4. A person lifting a chair		
5. A nuclear power plant		
6. A toaster		
7. A church bell		
8. Gasoline powering a car		
9. A light bulb		
10. Photosynthesis		



Description:	ORIGINAL ENERGY FORM	FINAL ENERGY FORM
1. Electric motor	ELECTRICAL	MECHANICAL
2. A battery that runs a moving toy	CHEMICAL	MECHANICAL
3. A solar panel on the roof of a house	RADIANT	ELECTRICAL
4. A person lifting a chair	CHEMICAL	MECHANICAL
5. A nuclear power plant	NUCLEAR	ELECTRICAL
6. A toaster	ELECTRICAL	THERMAL
7. A church bell	MECHANICAL	SOUND
8. Gasoline powering a car	CHEMICAL	MECHANICAL
9. A light bulb	ELECTRICAL	RADIANT
10. Photosynthesis	RADIANT	CHEMICAL

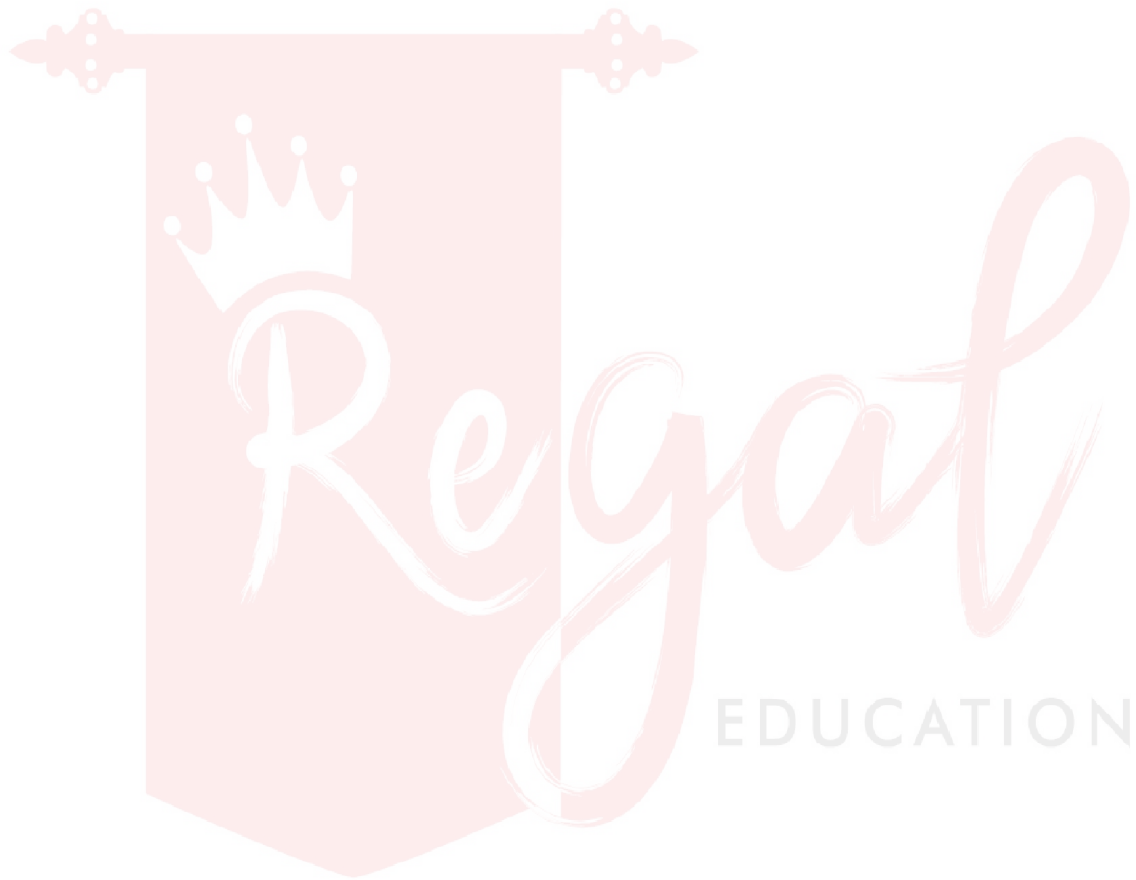
Create your own questions. Ask your friends.

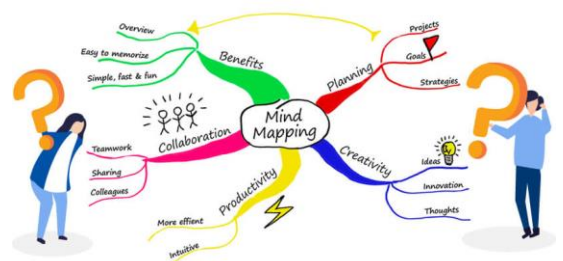
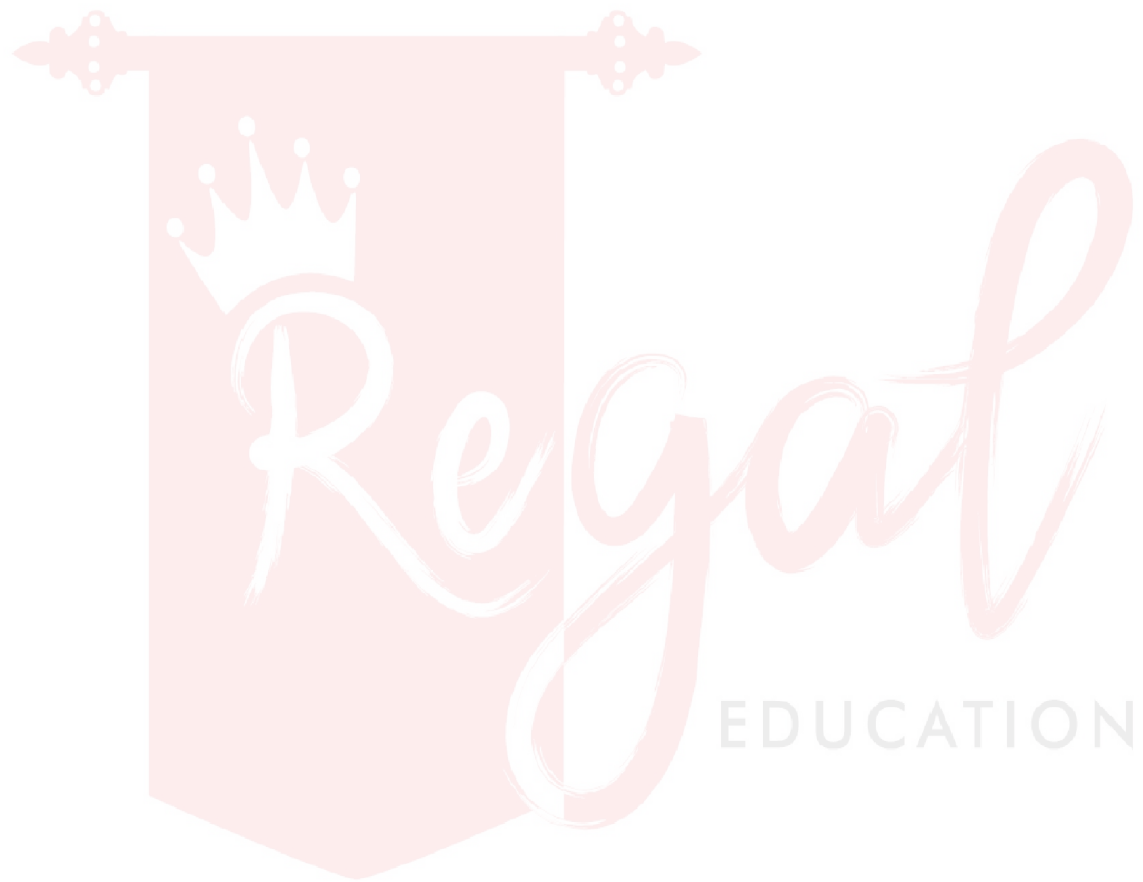


To play online, scan the QR codes.



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My notes











Regal Education Inc. presents publications which adopt the **United States Next Generation Science Standard (NGSS)** which represent the next generation of K–12 standards designed to prepare all students for success in college (including SAT, and ACP), career, and life by the time they graduate from high school.

Let's Do Science engages students with a highly visual presentation of the disciplinary core ideas and places emphases on applying scientific knowledge in everyday life. The main goal of **Let's Do Science** is to provide students with essential knowledge on the world and the universe, to promote the use of best learning practices and cutting-edge technologies in educational process. Learners who use **Let's Do Science** enjoy abundance of scientific investigations, practices, and visual presentations, that make the process of learning easy and captivating.

Gamebook is a supplementary material to be used in the classroom and at home to diversify learning routine, provide students with engaging materials that would help them to improve not only their academic, but also cognitive and social skills.

Crabs

- ✓ A megalops is a crab's first stage after it is no longer a larva.
- ✓ A zoea is a type of larva which occurs after crab eggs hatch.
- ✓ Juvenile crabs can be 4 inches long and live in shallow water.

Label the diagram, based on the information you have read.

Crab

egg

adult

megalops

Label each stage of the **jellyfish life cycle**.
Use the words given in the text.

Jellyfish

Find and circle the words in a
WORD-SNAIL.

Unit 2

nutrients asd a leaves a
germ in a few carbon
environment ted v
photosynthesis flow diox
pollination inhys
seeds h jfg
kju! h
lan tsabnfenviro n ment qed v
n tasda fdb
stem Aa v l an s b n fenviro n ment qed v
The plant uses sunlight and water to make food for itself.

Unit 7

- ✦ Cut out the vocabulary cards.
 - ✦ Check how many words you remember.
 - ✦ At the back of each card write down any information you find to be important about this word.
 - ✦ Compare your notes and your friends'.
 - ✦ Play with your friends.
 - ✦ Mix all the cards together.
 - ✦ Draw (take) a card. Read the word and try to guess what is written at the back of the card.
 - ✦ Read what is written at the back of a card and try to guess the word.
- You can make up your own rules. Write them down here.

