ELA

Insects for Dinner

Would you eat crickets for dinner? It might not sound good to you, but around 2 billion people worldwide eat insects! Eating insects is called entomophagy and there are many good reasons to do it.

First off, insects are really good for you! They are packed with protein. By weight, crickets and termites have more protein than beef.

Second, raising insects cost less and is better for the earth than raising cows and other livestock. Insects take up much less space and need much less food and water than cows. Also, you can eat more parts of an insect than other animals. Insects also reach their adult size quickly. It does not take much time to raise insects to eat.

Third, insects taste good! Many types of insects taste a little nutty. Some kinds of bugs taste like bacon, while others may taste like fish, or even fruit. Some insects, such as meal worms, don't have much of a taste at all. They pick up the flavors of whatever they are cooked with. So, what are you waiting for? Why not try a beetle today?

◆ IT: vocabulary, author's purpose, evaluation

TEXT TIME 7

Show What You Know

1. What is entomophagy?

2. Give three reasons why raising insects is better than raising livestock.
   1)
   2)
   3)

3. What is the author's purpose?

   a) to persuade b) to inform c) to entertain

Give evidence from the text to support your answer:

4. Would you try eating insects? Why or why not?

Insects for Dinner

Imagine eating a plateful of crickets for dinner with chocolate-covered ants for dessert. It might not sound too appetizing to you, but around 2 billion people worldwide eat insects regularly as a part of their diet. Eating insects is called entomophagy and there are many good reasons to do it.

First off, insects are really good for you! They are packed with protein, fiber, vitamins and minerals. By weight, crickets and termites contain more protein than beef.

Second, raising insects is less expensive and better for the earth than raising livestock. Insects take up much less space and need much less food and water than cows. Also, more parts of an insect is edible than a cow or a chicken. In addition, insects have a much shorter lifespan, so the time spent raising them is much less than other edible animals.

Third, believe it or not, if prepared well, insects actually taste good! Many types of insects taste a little nutty, especially if they are roasted. Some kinds of bugs taste like bacon, while others may taste like fish, or even fruit. Some insects, such as meal worms, don't have much of a taste at all and pick up the flavors of whatever they are cooked with. So, what are you waiting for? Why not try a beetle today?

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   Give evidence from the text to support your answer:

4. Would you try eating insects? Why or why not?

The Gorilla and the Monkey

Gorilla sat under a tree eating bananas. Gorilla was thirsty. He wanted to go to the river to get a drink, but then someone might steal his bananas. Baboon came and sat beside him. "May I have one of your bananas?" asked Baboon.

"No, you may not!" replied Gorilla. "I picked all these bananas myself. If you want some bananas, go get your own."

"But the bananas are all gone. You have picked them all and they are all there in your big pile," said Baboon.

"That is not my problem," Gorilla said grumpily. "Now go away and leave me alone."

A few minutes later, Monkey came to sit beside Gorilla. "I won't give you a banana," said Gorilla. "So don't even ask." "Oh no," said Monkey. "I just thought you might like some cool water from the river." Monkey gave Gorilla a coconut shell full of water.

Gorilla took the shell and drank it all. He felt much better. "Thank you," he said to Monkey. "Please, take one of my bananas for your trouble." Monkey gladly accepted.

◆ L: genre, summary, main idea, moral (theme)

TEXT TIME 8

Show What You Know

1. What kind of story is this?

a) fable b) fairytale c) tall tale d) myth

How do you know?

2. Why did Gorilla give Monkey a banana?

3. Summarize the story:

4. What is the moral (or lesson) of this story?

a) You should always share.

b) Monkeys are smarter than baboons.

c) Give something to get something.

d) You can trade water for bananas.

The Gorilla and the Monkey

Gorilla sat beneath a tree eating bananas. It was hot, and Gorilla was thirsty. Gorilla wanted to go down to the river to get a drink, but if he did, someone was sure to steal his bananas. Gorilla was thinking about his dilemma when Baboon swung down from the tree and sat beside him. "May I have one of your bananas?" asked Baboon.

"No, you may not!" replied Gorilla. "I spent all morning picking these bananas. If you want some bananas, go get your own."

"But the bananas are all gone. You have picked them all and they are all there in your big pile," complained Baboon.

"That is not my problem," Gorilla said grumpily. "Now go away and leave me in peace."

A few minutes later, Monkey came to sit beside Gorilla. "I suppose you want my bananas too," said Gorilla. "Well you can't have any."

"Oh no," said Monkey. "I was only thinking that you might enjoy some cool water from the river." Monkey offered Gorilla a coconut shell full of water.

Gorilla took the shell and drank greedily. He felt much better when he was done. "Thank you," he said to Monkey. "Please, take one of my bananas for your trouble."

Monkey gladly accepted.

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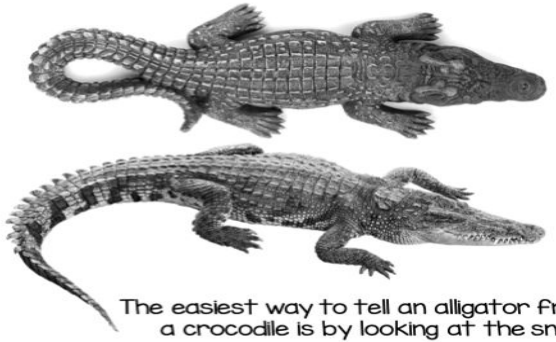
Alligator or Crocodile?

People often confuse alligators and crocodiles. Alligators and crocodiles are both reptiles. They both live in the water and they both have sharp teeth.

Crocodiles live in salt water. They have special glands on their tongues to get rid of the extra salt. Alligators don't have these glands, so they live in fresh water. Alligators have wide, U-shaped snouts. A crocodile's snout is longer and more pointed, like a V. Also, crocodiles have teeth on their lower jaws that stick out. You can see them even when the crocodile's mouth is closed. Alligators do not have any teeth that stick out.



The easiest way to tell an alligator from a crocodile is by looking at the snout.

◆ IT: compare and contrast, interpreting an illustration

TEXT TIME 9

Show What You Know

1. What do alligators and crocodiles have in common?

2. How are alligators and crocodiles different?

3. Which text structure did the author use?

a) description b) cause and effect
c) problem and solution d) compare and contrast

4. Is the animal closest to the bottom of the page an alligator or a crocodile?

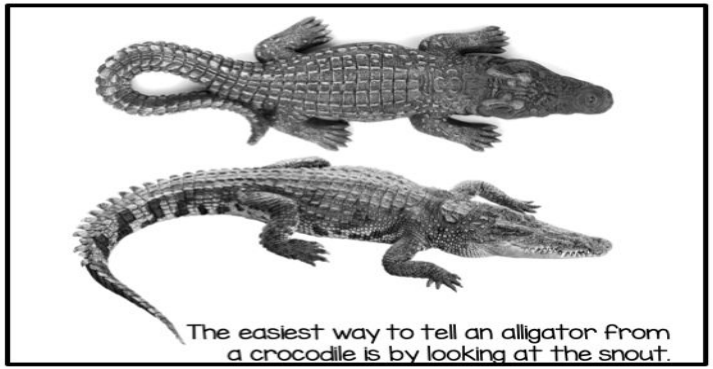
How do you know?

Alligator or a Crocodile?

It's a reptile. It lives in the water and it has big, sharp teeth. Can you guess the animal? It's an alligator, of course...or is it a crocodile? Let's find out:

If it lives in salt water, such as an estuary or mangrove swamp, it is a crocodile. Crocodiles have special glands on their tongues to get rid of extra salt. Alligators don't have these glands, so they live in fresh water.

Alligators also have wider, U-shaped snouts, while a crocodile's snout is longer and more pointed, like a V. Also, crocodiles have teeth on their lower jaws that stick out. You can see them even when the crocodile's mouth is closed. Alligators do not have any teeth that stick out.



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How do you know?

Math

Multiply multiples of 10, 100, and 1,000 using mental math and place value strategies.

- Activity 1: Using Basic Facts to Multiply Multiples of 10, 100, and 1,000
- Activity 2: Using the Associative Property to Multiply Multiples of 10, 100, and 1,000
-

Opening Routine

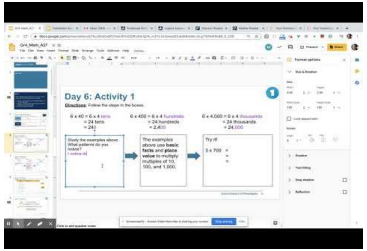
Directions: List some multiples of 10, 100, and 1,000. You can list any multiple. Click in the box to type.

List Multiples of 10		40			
List Multiples of 100					900
List Multiples of 1,000	2,000				

Are multiples of 1,000 also multiples of 10? Explain your thinking in this box.

Activity 1

Click here to learn how to fill in the boxes.



Directions: Follow the steps in the boxes.

6 x 40 = 6 x 4 tens
= 24 tens
= 240

6 x 400 = 6 x 4 hundreds
= 24 hundreds
= 2,400

6 x 4,000 = 6 x 4 thousands
= 24 thousands
= 24,000

Study the examples above. What patterns do you notice?
I notice that...

The examples above use **basic facts** and **place value** to multiply multiples of 10, 100, and 1,000.

Try it!

3 x 700 =
=
=

Activity 2

Directions: Follow the steps in the boxes.

$3 \times 50 = 3 \times (5 \times 10)$
$= (3 \times 5) \times 10$
$= 15 \times 10$
$= 150$

$3 \times 500 = 3 \times (5 \times 100)$
$= (3 \times 5) \times 100$
$= 15 \times 100$
$= 1{,}500$

$3 \times 5{,}000 = 3 \times (5 \times 1{,}000)$
$= (3 \times 5) \times 1{,}000$
$= 15 \times 1{,}000$
$= 15{,}000$

Study the examples above. What patterns do you notice?
I notice that...

The **Associative Property of Multiplication** states that you can change the grouping of factors and the product stays the same.

Try it!

$9 \times 2{,}000 =$
$=$
$=$
$=$

Day 6: Activity 2

Directions: Click and then drag ✣ an emoji to agree or disagree. If you disagree, fix it by writing the correct equation in the Fix It Column!

Equation	Agree or Disagree
3 x 4 = 12	
3 x 40 = 120	
3 x 4,000 = 1,200	
6 x 6,000 = 3,600	
5 x 70 = 350	
5 x 900 = 4,050	

Fix it!

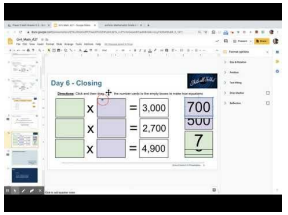
Focus on Language

Click below to practice Multiplication Vocabulary!

multiple	product	place value	reasonable answer	estimate
expanded form	number name	partial products	array	numerical expression

Closing

Click here to learn how to fill in the boxes.



Directions: Click and then drag the number cards to the empty boxes to make true equations.

	x		=	3,000
	x		=	2,700
	x		=	4,900

700

500

7

Use rounding to estimate products, and check to see if answers are reasonable.

- Activity 1: Estimation Scenarios
- Activity 2: Estimating Products

Day 7: Opening Routine

A family of five is planning to go to the Sixers game. They have budgeted $200 for tickets. They saw some great seats in section 201 for $38 per ticket. Is $200 enough to purchase the tickets?

One of the family members is in the 4th grade. She told her family that they can **estimate** and then she showed them how. What do you think she showed them?

Type your answer here.

Activity 1

Directions: Follow the steps in the boxes.

You don't always need to find the exact answer. Sometimes an **estimate** is all that is needed.

Read the scenarios in the table. Determine whether an estimate or an exact answer is needed.

Put an x in the column to mark your answer.

Explain your choice in the last column.

Scenario	Estimate	Exact Answer	Explain
A truck can carry 9,500 pounds. The truck is carrying 3 cars that each weigh the same amount.			
I plan to ride my bike about 28 miles each day during my 7 day vacation.			

Activity 2

Directions: Double click on the lines to fill in the blanks.

Estimate the product. Round to the nearest hundred.

8 x 745

↓ Round 745 to _____.

8 x _____ = _____.

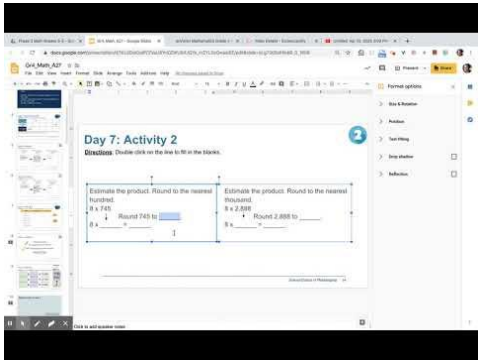
Estimate the product. Round to the nearest thousand.

8 x 2,888

↓ Round 2,888 to _____.

8 x _____ = _____.

Click here for a tech tip on how to fill in the blanks.



Activity 2

Directions: Double click on the line to fill in the blank. Drag the stars to decide if the highlighted answer is **reasonable**.

Estimate to check if the answer is **reasonable**.
Round to the nearest hundred.
9 x 722 = 8,123
↓ Round 722 to _____.
9 x _____ = _____.

Yes, the answer is reasonable.

No, the answer is not reasonable.

Estimate to check if the answer is **reasonable**.
Round to the nearest thousand.
2 x 3,782 = 7,564
↓ Round 3,782 to_____ .
2 x _____ = _____.

Yes, the answer is reasonable.

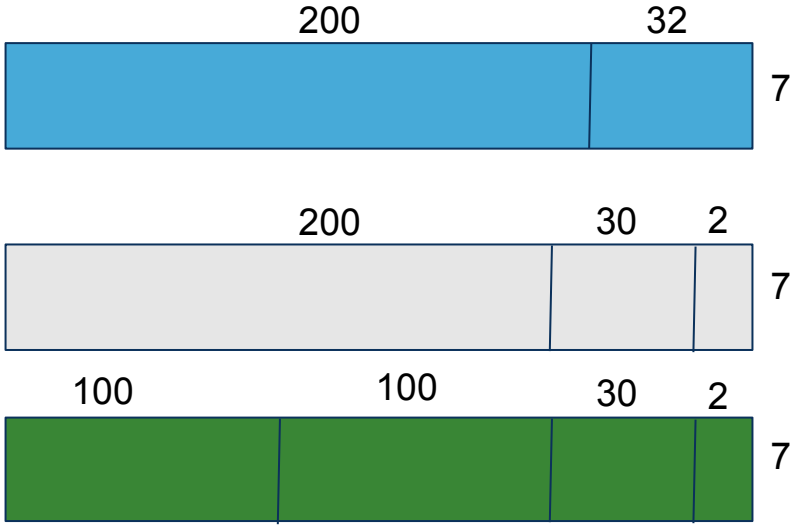
No, the answer is not reasonable.

Today - Use area models and the Distributive Property to multiply large numbers.

- Activity 1: Multiplying using Area Models
- Activity 2: Matching Models, Products and Expressions

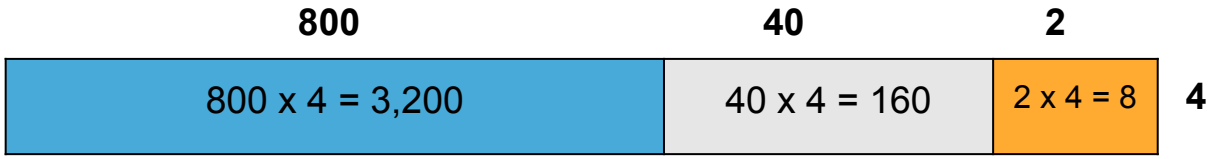
Opening Routine

The bridge leading to the treehouse at Morris Arboretum (click to learn more about the treehouse) is 232 feet long and 7 ft wide. Which of the models below would you use to find the area of the bridge? Explain your thinking in this box.



Activity 1

Directions: Follow the steps in the boxes.



Write a **numeric expression** to represent the area model.

_____ x _____

You can use a rectangular **area model** to show multiplication.

Multiply to find the partial products.

Add the partial products together.

Find the product.
Type your answer here.

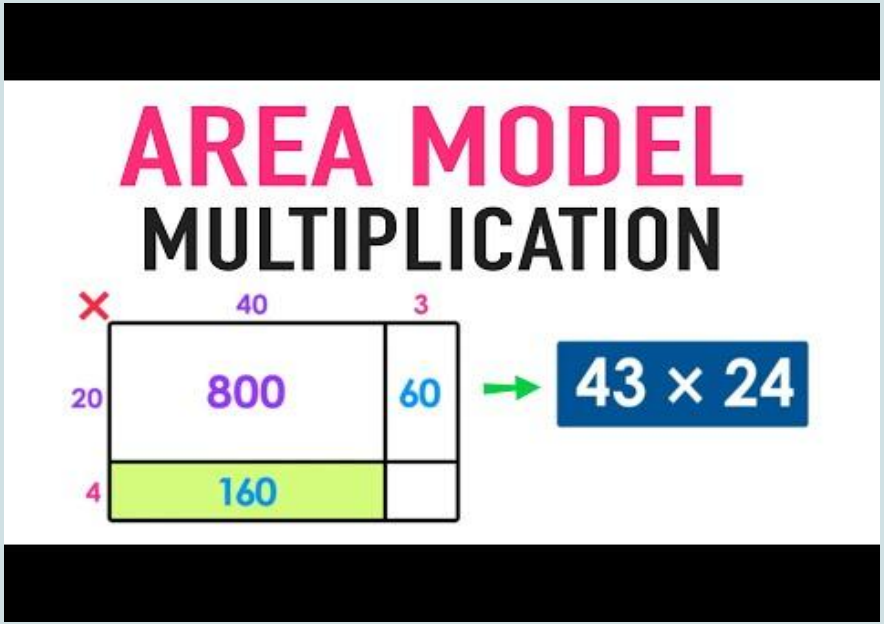
_____ x _____ = _____

Drag the shape down to check your answer.

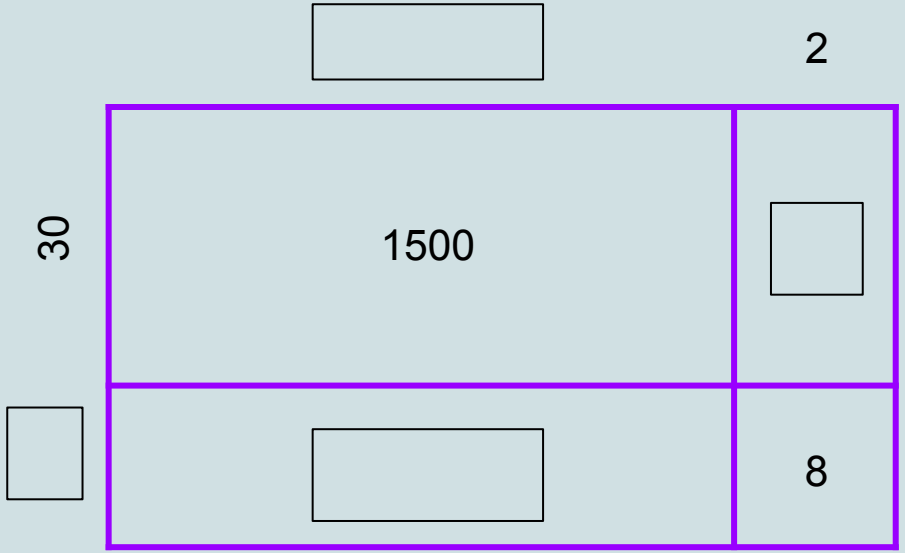
Additional Help

Multiplying Using Area Models

Watch This Short Video:

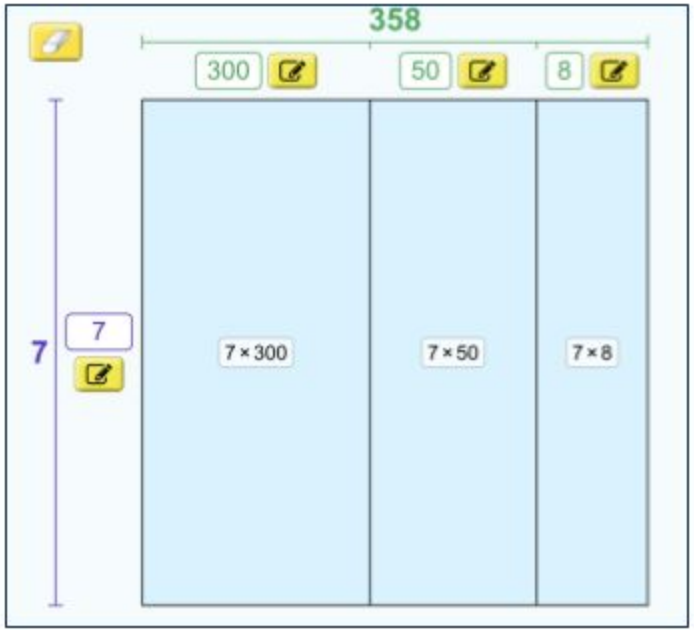


Now fill in the blanks below to label the Area Model for: 52 X 34



Activity 2

Directions: Examine the area models. Drag the expression and product from the middle box underneath the correct model.



7 × 358

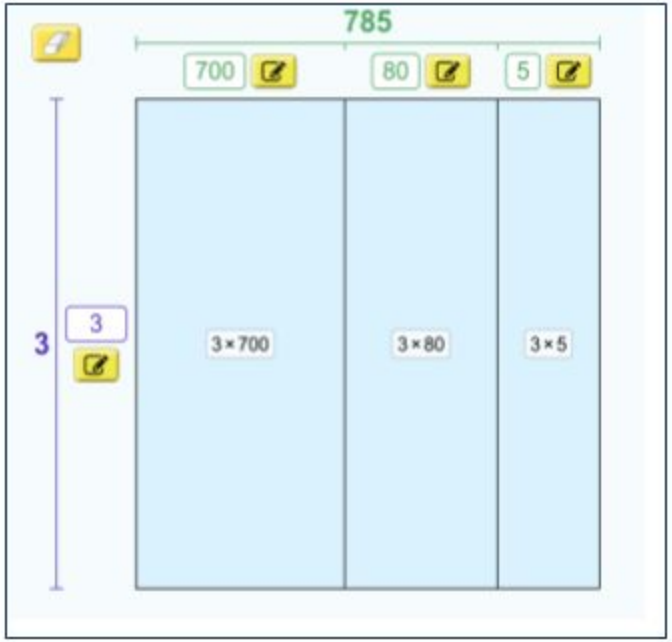
3 × 785

5 × 303

1515

2506

2355

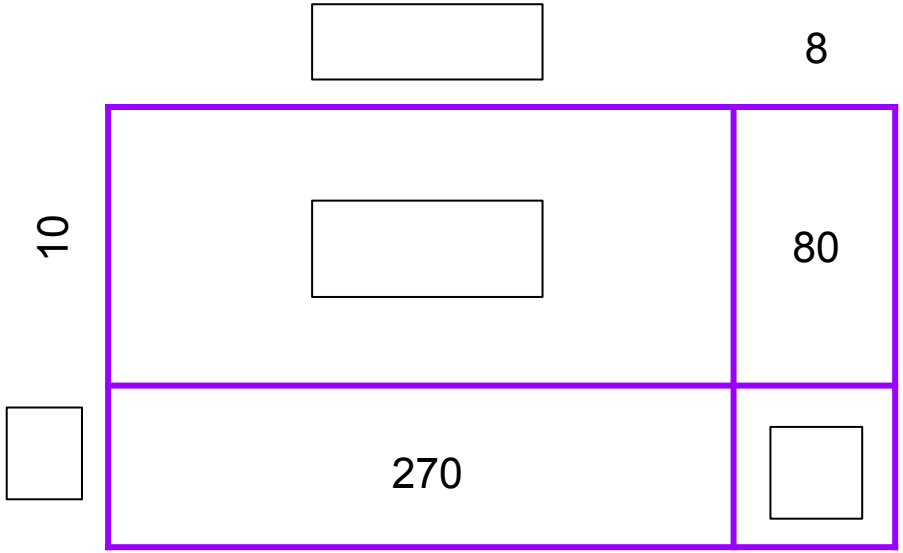


expression product

expression product

Activity 2 Continued

Directions: Complete the area model for the multiplication problem 38 x 19. Then write the final product in the box provided.



Product:

Science

The Earth's Spheres

Earth Systems

NGSS 5-ESS2-1. Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.

By Lynda R. Williams

Objective:
SWBAT describe ways the geosphere, biosphere, atmosphere and hydrosphere interact.

Drag the correct examples into the boxes below the Sphere.

Biosphere	Hydrosphere	Atmosphere	Geosphere

fur

Gro

mou

Car

bana

liza

rain

pebbl

lgneou

ry

n

re

ic

Scientists have divided the Earth into four major systems. These are called spheres. They include the biosphere, hydrosphere, atmosphere and geosphere.

The Biosphere

The biosphere includes all living things. It includes plants, animals, fungi and microorganisms.

What is the Biosphere?

What are some examples of components of the biosphere?

Type Here

Describe one way the biosphere interacts with the hydrosphere.

Type Here

Biosphere

hydrosphere

atmosphere

geosphere

The Hydrosphere

Includes all the water on Earth. It includes oceans, rivers, waterfalls, groundwater, glaciers, ice sheets, rain and snow.

What is the hydrosphere?

Type here

What amazing cycle is associated with the hydrosphere?

Type Here

What are some components of the hydrosphere?

Type Here

Describe a possible interaction between the hydrosphere and the atmosphere.

Type Here

hydrosphere

atmosphere

geosphere

The Atmosphere

The atmosphere is the layer of gases that surrounds the Earth. It includes Earth's oxygen, nitrogen, carbon dioxide, ozone and wind.

What is the atmosphere?

Type Here

Name one component of the atmosphere.

Type Here

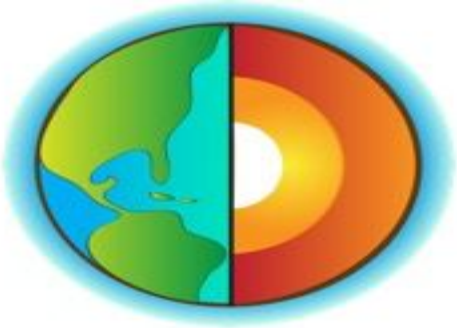
How does the atmosphere interact with the biosphere?

Type Here

atmosphere

geosphere

The Geosphere



This includes the Earth's core, mantle and crust. This includes continents, the ocean floor, rocks, sand, dust and metal. The geosphere also includes sediment and soil and the solid rock and molten materials beneath the surface of the Earth.

What is the geosphere?

Type here

What are some examples of components in the geosphere?

Type here

How does the geosphere interact with the hydrosphere?

Type here

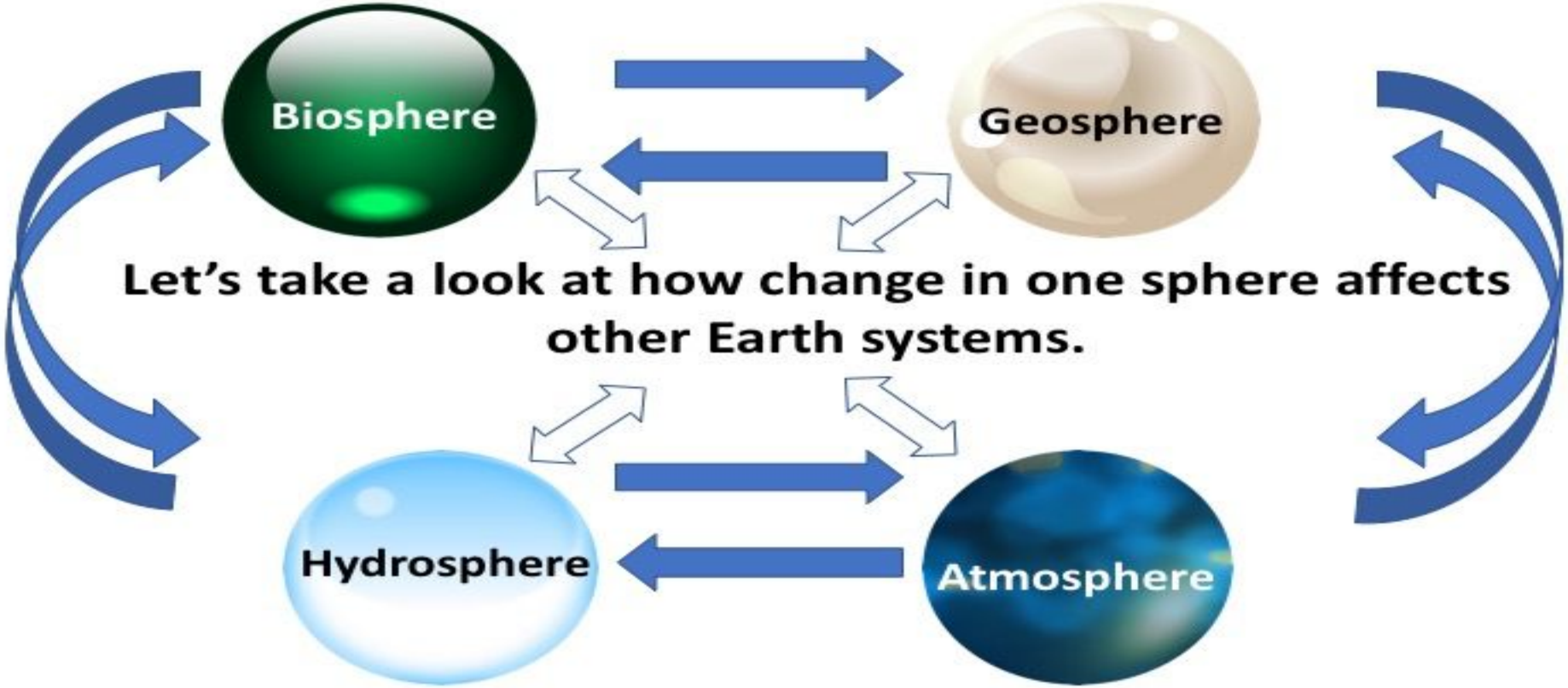
geosphere

Drag the correct examples into the boxes below the Sphere.

Biosphere	Hydrosphere	Atmosphere	Geosphere

fur
Gro
mou
Car
bana
liza
rain
pebbl
lgneou
ry
re
ic

Earth System Science is the study of how the four spheres are continually interacting and affecting each other and how matter and energy flows in and out of the Earth's open systems.



Volcanoes (geosphere) erupt, sending ash and gases into the air (atmosphere) and sending lava and ash down onto the surrounding habitats (biosphere) affecting ecosystems (biosphere).

Single event example: meteorite impact that causes massive global extinction

Which of Earth's spheres would this affect?

Example of an ongoing, steady process (example: Erosion and weathering)

Which spheres are interacting during weathering and erosion?

Tell how two of Earth's spheres interact.

Label Earth's spheres on the picture. Clearly explain how TWO of Earth's spheres are connected. Use the box below to type your answer.

Type your answer here:

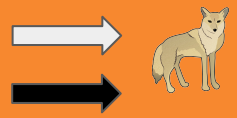
Use the words, pictures, and arrows below to label Earth's spheres. Use what you'd like.

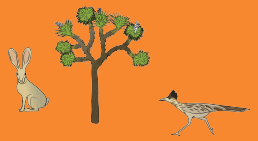
Hydrosphere

Atmosphere

Geosphere

Biosphere





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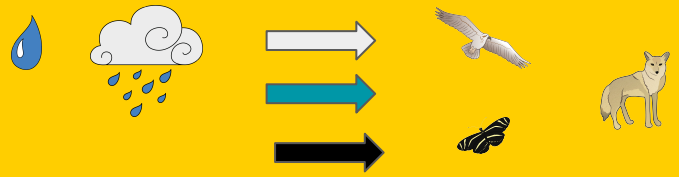

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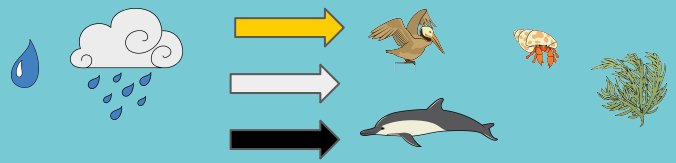
Biosphere



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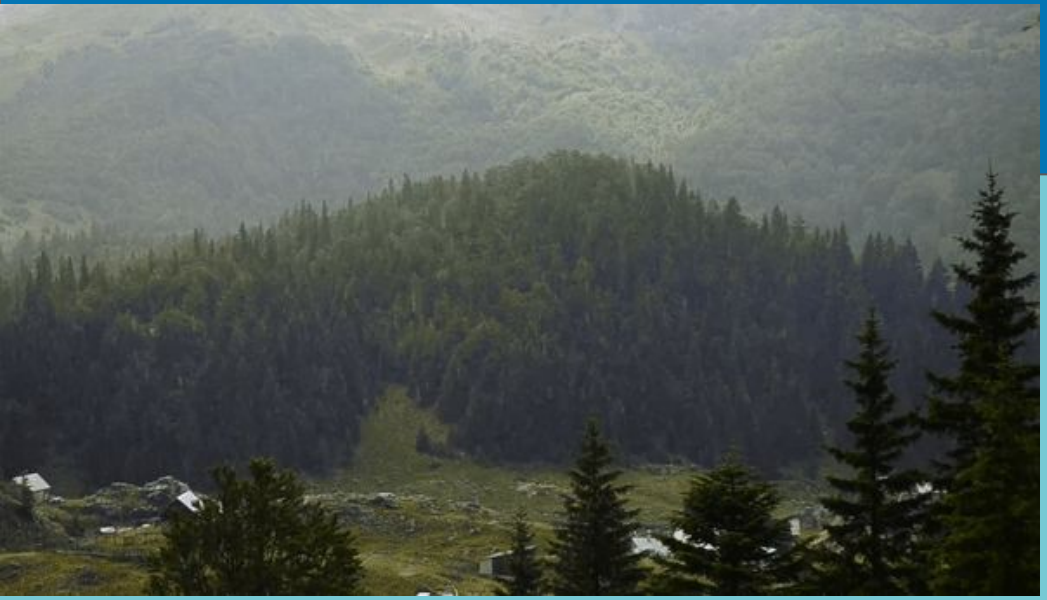

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