

At Home Learning Resources

Grade 4 - Week 5



Grade 4 ELA Week 5

Read the poems about the earth and Earth Day. Think about what they mean. What does the poet want you to learn? What figurative language do you notice? Then try the figurative language challenge, or write your own poems.

Here is an anchor chart that will help you remember the different kinds of figurative language.



The Earth Speaks

by Lenore Hetrick

The turning earth spoke in a somber voice. "Four seasons I give you," its deep voice said. "I give you spring when the lilacs bloom, I give you autumn when the maple is red.

"Summer I give you all crowned with sunshine, And winter of snow and icicle spears. Four seasons I give you with all their joys! And all their pleasures and all their fears!

"Take my four gifts and use each one, Use each wisely, kindly and well, So that upon the year's last hour A worthy record you date to tell."

The turning earth spoke but once again. "Four season I give you," its voice was low. "The gifts are yours and yours is the task To use my gifts as best you know."



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The Artist by Lenore Hetrick

Lady Nature is an artist With an eye for pretty pictures. She paints the sky most wonderfully, And how I love her colored mixtures.

If I could have a dress of blue, Just like bright Nature paints the sky, There isn't another thing in the world For which I know I'd ever sigh.

But, yes! If I had slippers made The flaming red of the setting sun, I'd dance and dance for hours and hours Until the day was closed and done!

And oh! If I could have a rainbow As a sash upon my dress, I'd feel so grand that never again Would I wear plaid – or anything less.



I Shall Protect the Forests

by Lenore Hetrick

Have you ever really looked at trees, And seen their perfect beauty? If you have, you know that their protection Is a stern and sacred duty. Protection of that spreading grandeur, Through many summers grown, Safeguarding of those temples green Where the song of bird is known.

Then remember that the forest fire Is an enemy to fight. It is a tree assassin to be Watched both day and night. A camp fire left unguarded or A match tossed carelessly May bring destruction with great loss, And deepest tragedy.

When next you see the wide-flung branches Of a graceful pine, Think to yourself, "A sacred service Is part and parcel of mine. I resolve to protect all trees forever, And guard their heaven-sent beauty, To save the forests of our land Shall ever be my duty."

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Practice with Common Numerators and Denominators

Study the Example showing how to compare fractions by finding a common denominator. Then solve problems 1–7.

EXAMPLE

A length of ribbon is $\frac{3}{4}$ of a foot. Another length of ribbon is $\frac{5}{6}$ of a foot. Compare the lengths using a symbol.

Find a common denominator. $\frac{3 \times 3}{4 \times 3} = \frac{9}{12}$ $\frac{5 \times 2}{6 \times 2} = \frac{10}{12}$ $\frac{3}{4} = \frac{9}{12}$ $\frac{5}{6} = \frac{10}{12}$ Write the equivalent fractions.

Compare the numerators. Since 9 < 10, that means $\frac{9}{12} < \frac{10}{12}$.

$$\frac{3}{4} < \frac{5}{6}$$

Shade the models to show $\frac{3}{4}$ and $\frac{5}{6}$. Compare the fractions. Write \langle , \rangle , or =. <u>5</u> 6

 $\frac{9}{12} < \frac{10}{12}$

2 Divide each model in problem 1 into 12 equal parts to show an equivalent fraction. Write the equivalent fractions and symbol to show the comparison.



Compare $\frac{2}{3}$ and $\frac{9}{12}$ by finding a common denominator.

a. Write a fraction equivalent

to $\frac{2}{3}$ with a denominator of 12.

b. Compare the fractions.



LESSON 18 SESSION 2

Compare $\frac{1}{5}$ and $\frac{2}{12}$ by finding a common numerator.

- a. Write a fraction equivalent
 - to $\frac{1}{5}$ with a numerator of 2.
- **b.** Compare the fractions.



 $\frac{1}{3}$

Compare the fractions. Use the symbols <, >, and =.

- **a.** $\frac{2}{5}$ $\frac{8}{10}$

$$\frac{3}{5}$$
 $\frac{60}{100}$



b. $\frac{5}{12}$

Tell

c.

Tell whether each comparison is *True* or *False*.

	True	False
$\frac{2}{3} > \frac{5}{6}$	۹	B
$\frac{4}{10} < \frac{4}{5}$	©	D
$\frac{70}{100} = \frac{7}{10}$	E	Ē
$\frac{1}{3} > \frac{3}{1}$	G	H
$\frac{3}{4} < \frac{2}{3}$	I	C

Vocabulary

common denominator a number that is a common multiple of the denominators of two or more fractions.

denominator the number below the line in a fraction that tells the number of equal parts in the whole.

numerator the number above the line in a fraction that tells the number of equal parts that are being described.

Can two fractions with the same numerator and different denominators be equal? Use words and numbers to explain.

Practice Using a Benchmark to Compare Fractions

Study the Example showing how to use 1 as a benchmark to compare fractions. Then solve problems 1–4.



Compare $\frac{5}{6}$ and $\frac{1}{3}$ using the benchmark fraction $\frac{1}{2}$. **a.** Label $\frac{5}{6}$ and $\frac{1}{3}$ on the number line below.

- **b.** Which fraction is greater than $\frac{1}{2}$?
- **c.** Which fraction is less than $\frac{1}{2}$?
- **d.** Write <, >, or = to show the comparison. Explain how you found your answer.
 - $\frac{5}{6}$ $\frac{1}{3}$
- 3 Use a benchmark fraction to compare the fractions $\frac{7}{10}$ and $\frac{5}{12}$. Explain how you found your answer.
- 4

Write *True* or *False* for each comparison. Then write the benchmark you could use to compare the fractions.

	True or False	Benchmark
$\frac{9}{8} > \frac{11}{12}$		
$\frac{2}{5} < \frac{5}{6}$		
$\frac{7}{10} < \frac{2}{4}$		
$\frac{4}{5} > \frac{2}{2}$		
$\frac{3}{2} < \frac{9}{10}$		

Prepare for Adding and Subtracting Fractions

Think about what you know about fractions. Fill in each box. Use words, numbers, and pictures. Show as many ideas as you can.



Does the model below show eighths? Why or why not?

$\frac{1}{8}$	<u>1</u> 8						
---------------	---------------	---------------	---------------	---------------	---------------	---------------	---------------

Solve the problem. Show your work.

Maria, Jon, and Kara share a set of 10 animal stickers. Maria gets 2 stickers, Jon gets 4 stickers, and Kara gets the rest of the stickers. What fraction of the stickers does Kara get?



Solution



Check your answer. Show your work.

Practice Adding Fractions

Study the Example showing one way to add fractions. Then solve problems 1–9.

EXAMPLE

Shrina has a muffin pan that holds 12 muffins. She fills $\frac{3}{12}$ of the pan with carrot muffin batter. Then she fills $\frac{6}{12}$ with pumpkin muffin batter. What fraction of the pan does she fill?

 $\frac{3}{12} + \frac{6}{12} = \frac{9}{12}$ So, she fills $\frac{9}{12}$ of the muffin pan.



Sam fills $\frac{2}{12}$ of another pan with banana muffin batter. Shade $\frac{2}{12}$ of the muffin pan diagram at the right.

2 Then Sam fills $\frac{6}{12}$ with lemon muffin batter. Shade $\frac{6}{12}$ of the diagram to show this.



In problem 2, what fraction of the pan in all is filled now? Write an equation for this problem that includes your answer.



What is the total distance Kay runs?

8 Write an equation for this problem that includes your answer.

9 Jin cleans $\frac{1}{10}$ of the patio before lunch and $\frac{9}{10}$ of the patio after lunch. What fraction of the patio does Jin clean altogether? Show your work.

Solution

Practice Subtracting Fractions

Study the Example showing one way to subtract fractions. Then solve problems 1–7.



Keisha is at her friend's house. Her friend's house is $\frac{8}{10}$ of a mile from Keisha's home. Keisha walks $\frac{3}{10}$ of a mile toward home. Then her mother drives her the rest of the way home.

Divide the number line below to show tenths. Then label each tick mark.



2 Use arrows to show the problem on the number line you labeled in problem 1.

3 How far does Keisha's mother drive her?

Write an equation for this problem that includes your answer.

5 Anna makes a quilt by sewing together green, white, and yellow fabric. When she finishes, $\frac{2}{6}$ of the quilt is green, and $\frac{3}{6}$ is yellow. The rest is white. What fraction of the quilt is white? Show your work.

Solution



Use a number line or an area model to show your thinking.

Solution

Shanice has 1 whole pizza. She eats some of it and has $\frac{4}{6}$ of the pizza left. What fraction of the pizza does she eat? Show your work.

Solution .

Practice Decomposing Fractions

Study the Example showing how to decompose a fraction in different ways. Then solve problems 1–5.



b.
$$\frac{3}{5} = \frac{1}{5} + \dots + \frac{1}{5}$$

Shade the area model below to show the equation in problem 1a.





Select all the equations that show a correct way to represent $\frac{7}{10}$.

(A)
$$\frac{1}{10} + \frac{5}{10} = \frac{7}{10}$$

(B) $\frac{2}{10} + \frac{5}{10} = \frac{7}{10}$
(C) $\frac{1}{10} + \frac{2}{10} + \frac{4}{10} = \frac{7}{10}$
(D) $\frac{1}{10} + \frac{4}{10} + \frac{3}{10} = \frac{7}{10}$
(E) $\frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} = \frac{7}{10}$

Vijay has ⁶/₆ of a cup of raisins. He wants to put the raisins into three snack bags.
 What are two different ways he could put raisins into three snack bags?
 Use a model to show each way. Show your work.

5 Is
$$\frac{7}{12} + \frac{1}{12}$$
 equivalent to $\frac{4}{12} + \frac{4}{12}$? Explain your answer.

Wild Weather

Climate change is wreaking havoc on the weather worldwide.

Hurricanes. Blizzards. Droughts. Floods. These wild-weather events are nothing new. But scientists say they're happening more often. And most think that **climate change** due to human activity is partly to blame.

Warming World

Over the past 150 years, the planet's average temperature has climbed 0.8 degrees Celsius (1.4 degrees Fahrenheit). That's more than it rose in the previous thousand years.

What's causing the warm-up? Earth's temperature has changed naturally throughout history. But many scientists say the recent warming is likely related to the way humans make energy. Across the world, people burn **fossil fuels**, such as oil and coal, to run cars and make electricity. When this happens **greenhouse gases**, such as carbon dioxide, get released into the atmosphere.

"These gases tend to trap heat near the [Earth's] surface. This makes it slightly warmer on average than it would be if greenhouse gases weren't increasing," says Derek Arndt, a climate expert with the National Oceanic and Atmospheric Administration.

GRADE FOUR - SCIENCE

Making the Link

How could a warmer climate lead to extreme weather? It starts with the way warmer temperatures increase the evaporation of water.

- **Strong storms:** Many storms begin when warm water evaporates off the ocean's surface and rises into the atmosphere. The warmer the water, the faster it evaporates. That makes for moister, warmer ocean air an important ingredient for hurricanes.
- Floods and blizzards: "A warmer atmosphere can hold more moisture," explains Arndt. "[Put that] into a storm system, and it's going to be able to produce more [precipitation]." These conditions can make floods and blizzards more likely in some places.
- **Droughts:** If warmer temperatures evaporate extra water, but that water doesn't then fall back in the same place as rain or snow, the result can be dryer soil and shrunken lakes and rivers. That kind of drought can affect farmers and wildlife. And drought can make it easier for wildfires to spread.

Scientists expect that climate change will continue to increase wild weather across much of the planet. They will be studying extreme events to better understand what is happening and how to help people stay safer and better prepared.



The Great Evapo-Race

How does temperature affect evaporation rates? Find out here.

- Find two identical clear containers. Use a ruler and a permanent marker to draw a line 5 cm (2 in.) from the bottom of one container. Repeat with the second container. Label one "Cooler" and the other "Warmer."
- Place the containers on a flat surface. Pour water into each container, up to the 5-cm mark. Double-check to make sure the water levels are the same.



taskcard

Materials

- ★ 2 identical clear containers
- \star ruler
- permanent marker
- 🖈 water
- ★ a warm place and a cool place
- ★ "The Great Evapo-Race" data sheet

- 3. What will happen to the water if you leave these containers sitting uncovered? You probably know that over time it will evaporate—transform from liquid to gas. That means that, little by little, water molecules will leave the liquid water and become water vapor in the air. Think: If you put one container in a warmer place and the other in a cooler place, will water in one of the containers evaporate faster? If so, which one? Or will they both evaporate at the same rate? Record your prediction on your data sheet.
- **4.** Brainstorm ways you could put one container in a warmer place and the other in a cooler place. You can leave one in your classroom. You just have to find a cooler or warmer place to put the other. Make a list of ideas on your data sheet.
- 5. Choose one idea from your data sheet to test (circle it). Then put your cups in place.
- 6. Wait three days. Place the containers on a flat surface. Use a permanent marker to mark the new water levels.
- 7. Which cup of water evaporated faster? How do warmer temperatures affect evaporation?

Name: ___

Date: ____



The Great Evapo-Race

- **1.** Do Steps 1 and 2 of the Task Card.
- **2. Predict:** If you put one container in a warmer place and the other in a cooler place, will water in one of the containers evaporate faster? If so, which one? Or will they both evaporate at the same rate? Record your prediction here.

3. Brainstorm places where you could put the containers—one place needs to be warmer or cooler than the other. List your ideas here, then circle the one you will test.

4. Do Step 6 of the Task Card. Which cup of water evaporated faster?

5. How do warmer temperatures affect evaporation?

Pitch In!

Draw a picture that shows you doing something to help Earth. Then describe how you are helping our planet in the picture.





by

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Gaylord Nelson was always interested in the environment, even as a boy. When he grew up, he became a **senator**. A senator is someone who helps make laws in our country. Nelson worked to write laws to protect the environment. The laws helped, but he wanted to do more.

He had an idea. Why not have a day on which people learn about Earth's problems and work on solutions? More than 20 million people from across the country took part in the first Earth Day on April 22, 1970. Today, people all over the world make promises to help our planet on Earth Day.

Thank you, Gaylord Nelson, for helping us see that Earth needs our attention and help!

Choose an endangered or Draw your animal here. threatened animal to research. Complete the chart with the information you learned about this animal. Animal:

You Can Help

When we protect the environment, we also protect animals' habitats. Some of these animals are endangered or threatened.

M

Animal	Bengal Tiger	Bald Frank	
Where is the animal's habitat?	Bengal tigers live in grasslands, shrublands, rain forests, and mangroves in India, Nepal, and Southeast Asia.	Bald eagles build nests on edges of rivers, lakes, and seashores, and along high peaks in North America.	
Why is the animalPeople kill tigers for their fur and use the tigers' fat and crushed bones to make medicine.		A farm chemical called DDT made fish sick. Eagles ate the fish. The DDT made their eggs soft. Few babies hatched.	
How is the animal being protected? Reserves and conservation programs protect tigers. The govern ment of Nepal tags tigers to keep track of them.		In 1972, DDT was banned. Zoos also began to breed bald eagles and release them into the wild.	

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Problem-Solution Chart

What are some of the problems in our environment? What are some possible solutions? Fill in the chart below.

Problem	Possible Solution
 People use a lot of gas to drive their cars. This pollutes the air. 	 People can carpool or take the bus so that there are fewer cars on the road. They can also walk to places that are nearby.
2.	2.
3.	3.
	2
_	

How Rain Forests Help the World

- More than half of the world's animal species live in the rain forest.
- Almost half of all the medicines we use come from the rain forest.
- Rain forests take in huge amounts of carbon dioxide (a poisonous gas). Through photosynthesis, leaves on plants and trees change carbon dioxide into oxygen that we breathe.

How People Harm the Rain Forest

- Logging companies cut down too many trees. As a result, animals lose their homes.
- Cattle ranchers clear land to raise cattle. When the cattle destroy the land, the ranchers move on to new land.
- Many tourists visit rain forests, leading people to cut down trees to make room for roads and hotels. This also causes more pollution.

Imagine you are writing a letter to someone who doesn't think the rain forest is important. In your letter, explain why we need to preserve the rain forest.

Dear	>
	Sincerely,

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ESL at Home 3-5 Weeks 5-6 Use notebook paper to complete these activities. Do one each day!

Monday	Tuesday	Wednesday	Thursday	Friday
Who is your favorite book or movie character? Write or draw what would happen if you met them in real life.	Look at the food in your home. Create a pretend menu for lunch. Example: Pretzel and jelly sandwich with a side of tuna fish: \$4.67 Chocolate chip scrambled eggs with salsa ice cream: \$5.99	Unscramble these animal names, then draw the animal. caro rwmo cnaotu rumle	Make a t-chart of healthy and unhealthy foods in your home.	Create your own superhero. Draw and label a costume and superpowers. Write about a time the superhero saved someone.
Monday	Tuesday	Wednesday	Thursday	Friday
Use boxes or books to create a ramp. Find five things to roll down the ramp. What rolls the farthest? What rolls the shortest?	Design a plan for your dream neighborhood. Draw and label a map of the homes, streets, and businesses you would have.	Create a commercial for your new neighborhood. Tell what makes it special and why people should move there.	Listen to any song. Write down any similes you hear. Ex: "I came in LIKE a wrecking ball."	Choose two animals, like a horse and an alligator. Imagine what they would look like if they were put together. Draw it, and write about its habitat, predators, and prey.

Name

Go Green The 3 R's

Start at the center and draw along the path, label the pyramid, then follow with the discussion.



Reuse

Discuss the following situation: You are given money to buy yourself a drink. Which is the most Earth-friendly option?

- A. Buy a drink in a can and put the can in a recycling box.
- B. Buy a drink in a bottle and put the bottle in a recycling box.
- C. Put the money in your piggy bank and drink a nice glass of cool water.
- D. Buy a drink in a reusable bottle and take the bottle back to the store.