At Home Learning Resources

Grade 6 - Week 8

Content	Time Suggestions
Reading (Read books, watch books read aloud, listen to a book, complete online learning)	At least 30 minutes daily (Could be about science, social studies, etc)
Writing or **Word Work** or **Vocabulary**	20-30 minutes daily
Math	45 minutes daily
Science	25 minutes daily
Social Studies	25 minutes daily
Arts, Physical Education, or **Social Emotional Learning**	30 minutes daily

These are some time recommendations for each subject.
We know everyone's schedule is different, so do what you can.
These times do not need to be in a row/in order, but can be spread throughout the day.
Teachers will suggest which parts of the packet need to be completed or teachers may assign alternative tasks.

Grade 6 ELA Week 8

Your child can complete any of the activities in weeks 1-7. These can be found on the Lowell Public Schools website: https://www.lowell.k12.ma.us/Page/3802

This week continues a focus on informational or nonfiction reading and writing. Your child should be reading, writing, talking and writing about reading, and exploring new vocabulary each week.

Reading: Students need to read each day. They can read the articles included in this packet and/or read any of the nonfiction/informational books that they have at home, or can access online at Epic Books, Tumblebooks, Raz Kids, or other online books. All resources are on the LPS website. There is something for everyone.

Talking and Writing about Reading: As students are reading, they can think about their reading, then talk about their reading with a family member and/or write about their reading using the prompts/questions included.

Writing: Students will continue working on informational writing for the next weeks. The resources in this packet will be the same for next week for writing as well. These resources are charts with examples to help your child write. They are available online in an interactive form with video tutorials here: Grade 6 Nonfiction Writing Choice Board. This writing should occur over multiple days. This is a great opportunity to explore new topics. Students will be planning their writing, then writing, then making it even better by revising, writing some more, and at the end, fixing it up by editing. Your child might write 1 informational book and work to refine it throughout, or might write multiple books, getting better each time.

Word Work: Students can work on learning new vocabulary about a topic they are interested in. Students can also explore these roots and see where they find them in their reading. Students can create lists of other words with the same root and then write a new sentence using these words.

When reading informational texts, think about the following. Annotate, stop and jot, and respond in writing as you are reading or when you are done.

To Make the Most of Your Nonfiction Texts

Orient yourself. Generate questions and ideas.

Notice fascinating parts, and mull them over.

Determine *possible* central ideas.

Rethink central ideas in light of new information.

Consider how embedded stories connect to central ideas.

Study how ideas, events, or people are developed.

Building Monuments to the Sky

The ancient pyramids in Egypt are an amazing sight. Tall and majestic, they are desert beauties. There are about eighty pyramids known today from ancient Egypt. Three of the most famous Egyptian pyramids are in Giza, Egypt. These were built in the fourth dynasty (around 2575-2465 BC) as a tomb for a pharaoh, Khufu, and his son and his grandson, who also became pharaohs. A pharaoh was a powerful ruler. The surrounding area has several additional, smaller pyramids for other members of the royal family.

Ancient Egyptians built pyramids as tombs to protect their royal dead. The Egyptians placed in the pyramid all the things that a ruler might need for an afterlife, which is an existence after death. They thought a ruler would need many valuable items such as jewelry, gold, boats, and chariots. The structure and placement of the pyramids were carefully chosen. The large pyramids were supposed to protect these graves from robbers who wanted to steal the treasures each pyramid held. The placement of the pyramids, west of the Nile, was chosen because the home of the dead was thought to be toward the setting sun.

Most pyramids in Egypt were constructed out of four triangular sides that slope toward the top, where they meet. The early architects laid out the pyramids so that the sides aligned perfectly with lines along the cardinal points of the compass: north, east, south, and west. They used geometry to determine how large of a square base they would need to construct a pyramid with the appropriate height.

The Great Pyramid of Khufu, frequently called simply the Great Pyramid, was built about 2550 BC

Workers drag building blocks.

Credits: main: © mihtiander/123RF; inset: Workers dragging building blocks (papyrus), Egyptian 21st Dynasty (c1069-945 BC)/Private Collection/Ancient Art and Architecture Collection Ltd./The Bridgeman Art Library

with more than 2 million stone blocks. Although it is no longer the world's largest human-made structure, as it was for more than 3,000 years, it is the largest of all the ancient pyramids. The ancient Greeks called it one of the Seven Wonders of the World, and it is the only one of those seven that still exists to this day.

This pyramid originally measured 482 feet tall (147 meters). Each side of the square base was about 754 feet wide (230 meters). Large blocks of granite, each weighing an average of two-and-a-half tons, make up the pyramid. Recent excavations show that there were granite quarries close to the pyramids. After a granite block was cut from the quarry, workers dragged it up a carefully constructed ramp to its specific location. It would then be set in place by a stone-setter. As the pyramid grew, the ramp was increased in height and length with the addition of limestone chips, mud brick, and clay. At the very top of the pyramid, the workers placed a block of shiny metal.

Building the pyramids in steps created an uneven outer surface. The engineers and architects wanted a smooth surface. They finished the pyramid with blocks of white limestone, chiseled so that the outside surface of the pyramid was smooth. Workers removed the ramp as they went.

Modern research suggests twenty to thirty thousand people were needed to build these huge pyramids. Records show that some of these people would have been temporary workers, probably farmers who worked during the flood season. However, to support such a large building project, there would have been permanent workers with a specific trade, such as brick bakers, artisans, and stone-cutters. Evidence of a permanent job site with homes and businesses has been found around the pyramids. Additionally, archaeologists found evidence in ancient writings of inspectors, overseers, and directors.

Each pyramid took decades of hard work and intelligence to construct. Without the amazing calculating power of computers, people still managed to build these incredible structures. Even today, they inspire budding Egyptologists and make people wonder, "What could I build?"

DID YOU KNOW?

Pyramids are found all over the world, including in what is today Mexico, Peru, Sudan, Iraq, Guatemala, and Italy.

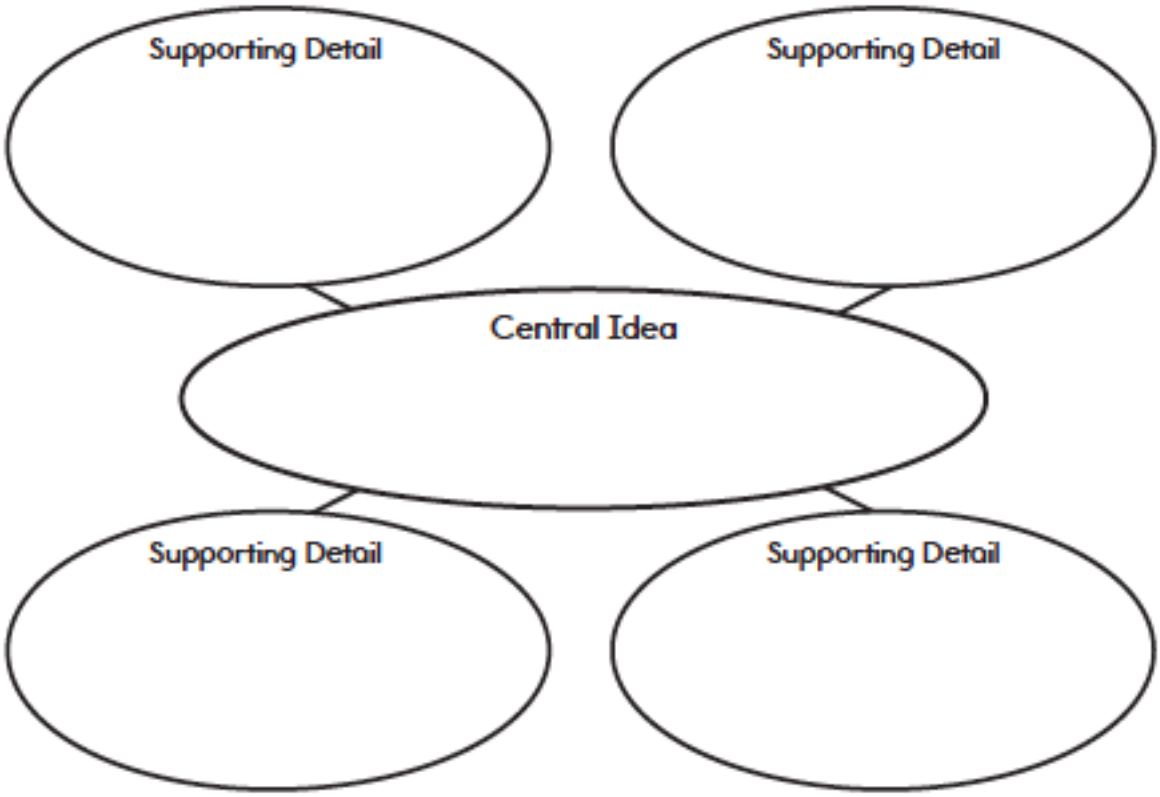
Name _____

Key Question

What does it take to build something grand?

On Your Own

1. Read the Key Question. Then read the passage. Look for the central idea and details that help you answer the Key Question. Circle or underline these details.
2. Now look back at the passage. Write the details you circled or underlined in the web below. Write the central idea of the passage.



3. Think about the Key Question. Write your answer to the Key Question using the information in your web.

4. What is the author's point of view in this article? How is it expressed?

THE SPACE HOUSE

In ten years, the International Space Station (ISS) has traveled more than 1.5 billion statute miles, or the same distance as eight trips to the sun. It has made 57,000 orbits around Earth. This station demonstrates how human ingenuity and cooperation can defeat even the harshest and most perplexing of building conditions to create something grand.

The first occupants of the ISS lifted off on October 31, 2000. The components of the station were already in space. The Zarya, built by the Russians, and Unity, built by the Americans, were sent into space in 1998. In the two years that followed, the modules were connected by astronauts on space walks.

However, the crew in 2000 had the task of turning on the lights. It must have been a huge relief when the switch was thrown, and most everything worked! They spent four months preparing the station to be almost fully habitable. In that time, they had to turn on and check all systems, including the water supply that was generated partially by the exercise system. Imagine having to exercise just because you are thirsty! Because the space station has limited space, nothing can go to waste. Even waste water is recycled into clean water.

Over ten years more elements have been added to the station. An acre of solar panels now powers the station. Over one hundred racks, each about the size of a phone booth, have been installed to house experiments and the elements needed to run the space station.

Currently, the station covers roughly the area of a football field, even the end zones. It weighs more than 900,000 pounds, roughly equivalent to 320 cars. The living space is about the size of a five-bedroom house, with two bathrooms, a gym, and a

DID YOU KNOW?

The International Space Station is visible from Earth. NASA's website has an application that helps people track it so they know when to look up.

Credits: courtesy of NASA

Astronauts step outside of their orbiting home.

360-degree bay window. Yet even with all the room, the astronauts can never really escape each other. At full capacity, the station can house six people, who must work together all the time.

Building and maintaining the ISS is complicated because there is no gravity. Instead, astronauts perform spacewalks lasting between five and eight hours. Spacewalks begin in special airlocks on the station. First astronauts put on special suits several hours before they go outside. They must breathe pure oxygen to get rid of all the nitrogen in their blood. Any nitrogen left creates air bubbles when the astronauts are in space and can cause a painful condition called "the bends."

Once outside the airlock, they tether themselves to the station or to a vehicle so they don't float away. If something were to happen to the tether, the astronaut would use jet thrusters attached to the spacesuit to "fly" back to the craft. Handrails on the space station also allow crewmembers to "walk" around. ISS maintenance as well as attaching extra rooms and racks can all be done with spacewalks.

Work outside attaching modules became easier in April 2001 when Canadarm 2, the robotic arm for the station, was attached. The arm can carry the astronauts to the place where they must work. It must be better than a roller coaster ride to zoom through space attached to a giant robotic arm. NASA calculates that 1,021 hours of space station assembly has been accomplished in 162 space walks.

The International Space Station has lived up to its name. The first astronauts to live on the space station were both Russian and American. Five different space agencies participate in the project, NASA, the European Space Agency, the Japanese Aerospace Exploration Agency, the Russian Federal Space Agency, and the Canadian Space Agency. Additionally, privately funded rockets have been visiting and resupplying the station. Astronauts from over a dozen different countries have visited and lived on the station, almost 200 in all.

Credits: courtesy of NASA

Name _____

Key Question

What does it take to build something grand?

On Your Own

1. Read the Key Question. Then read the passage. Look for the central idea and details that help you answer the Key Question. Circle or underline these details.
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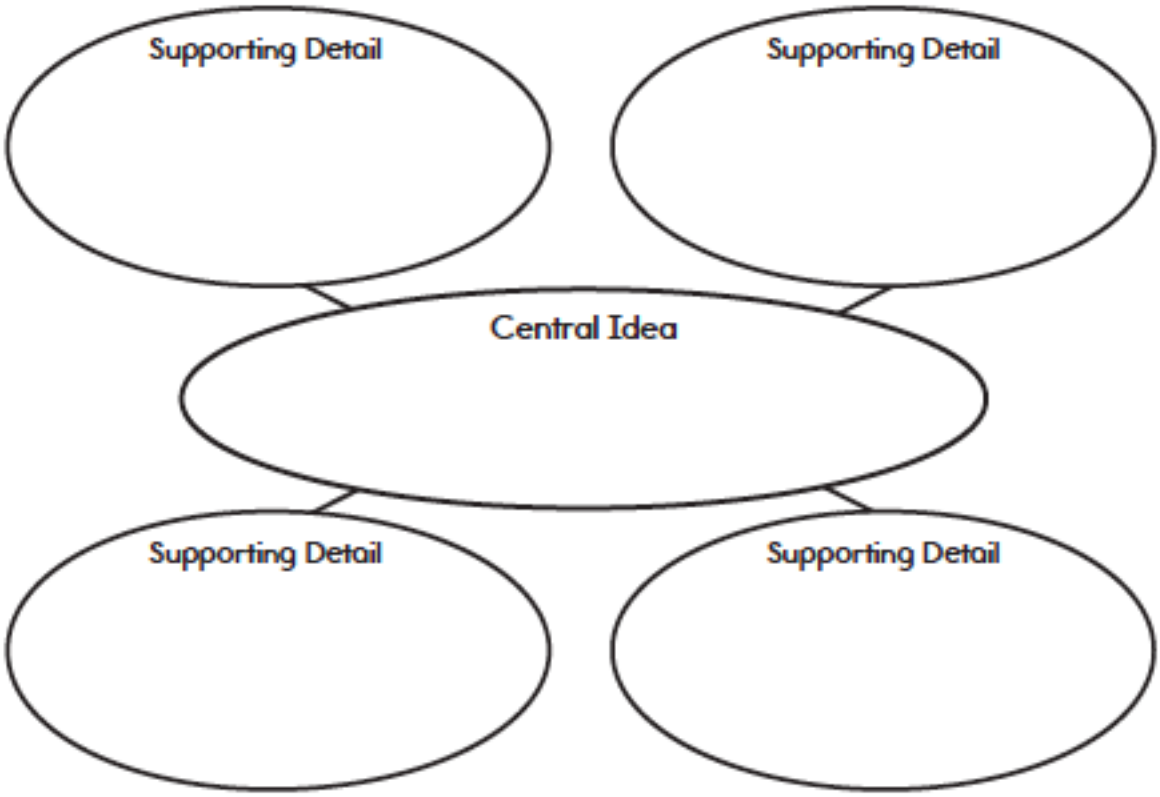
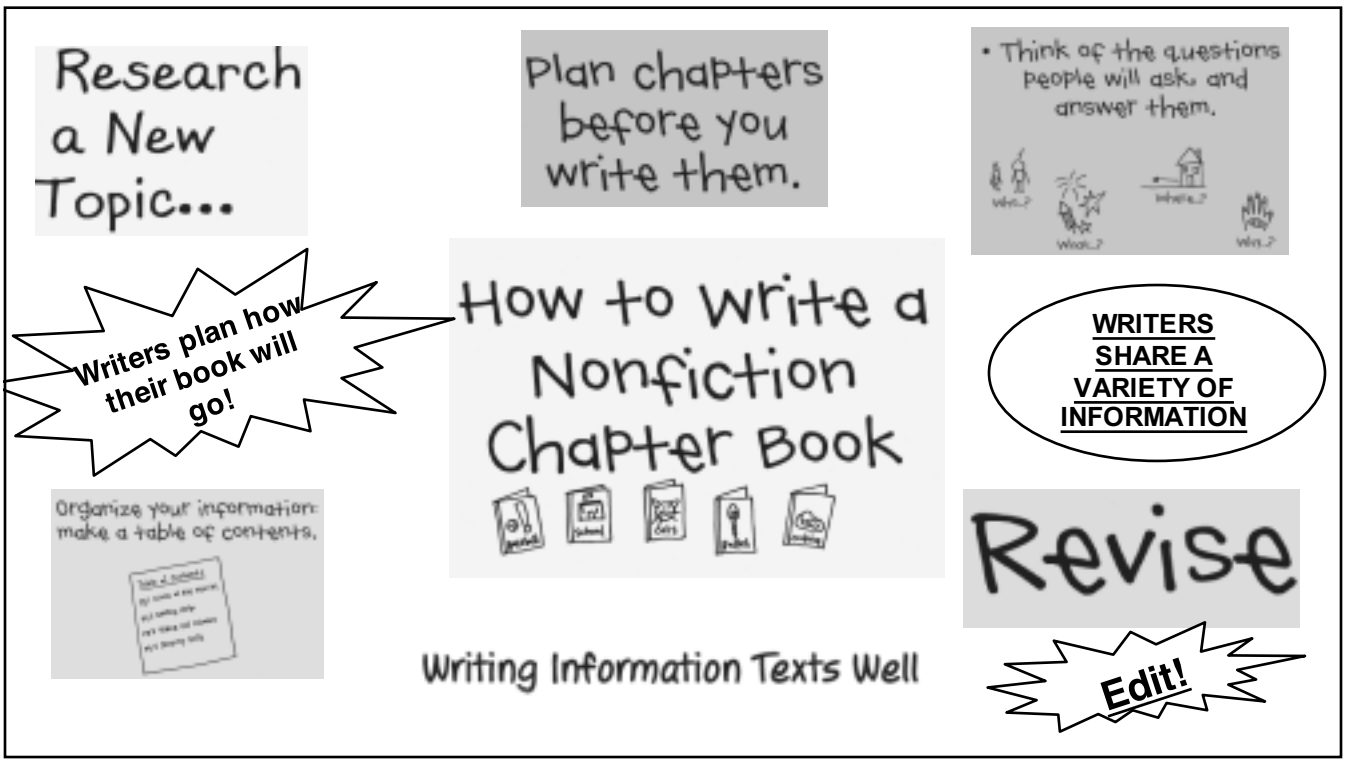


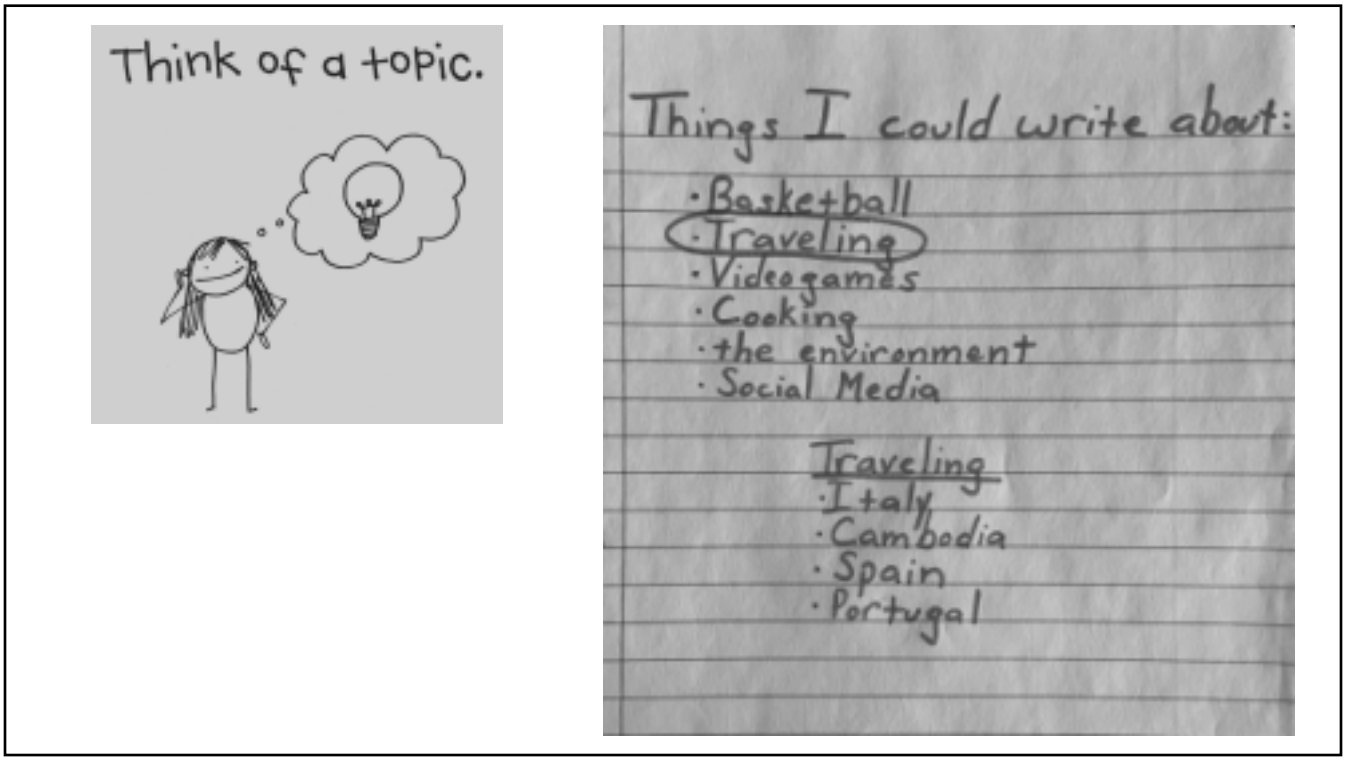
3. Think about the Key Question. Write your answer to the Key Question using the information in your web.

4. What is the author's point of view in this article? How is it expressed?

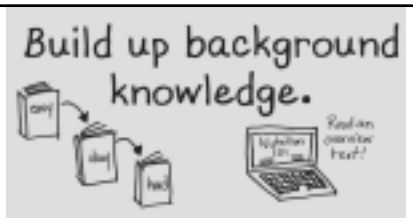
After reading *Building Monuments to the Sky* and *The Space House,* compare and contrast the challenges in each text Be sure to include specific details to show how the texts are connected.

Grades 5 & 6 Nonfiction Writing Choice Board - Visit the online option for an interactive board with tutorials. Use the anchor charts to help you write your own informational book that teaches others.

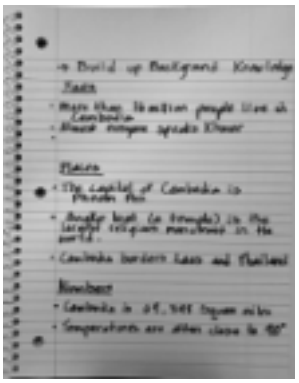




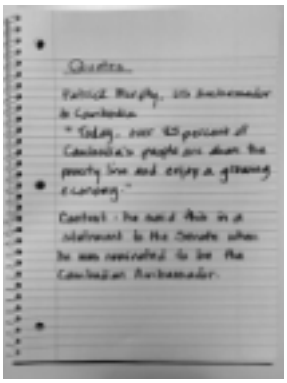
Research a New Topic...

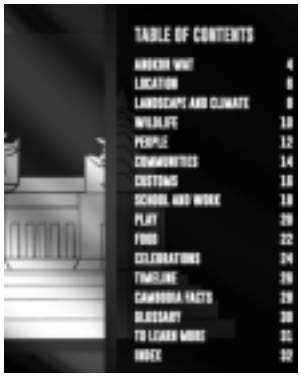


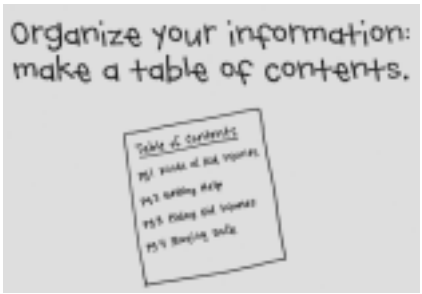
Record important facts (exact names, places, numbers)

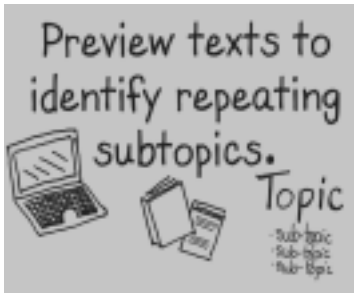


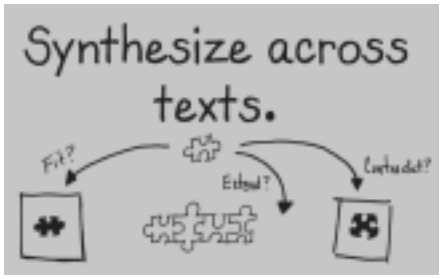
Capture quotes and, if possible, the context in which they were said.











Common Structures for Information/Nonfiction Texts

- **Problem/Solution**
  (Chapters on the Problem, Chapters on the Solution)
- **Chronology**
  (What happened first, next; what could happen in the future)
- **List/Boxes and Bullets**
  (Write about one person/project after another, perhaps grouping them by category)
- **Classification**
  (Propose that there are different kinds of a thing; different categories, then discuss each)
- **Definition**
  (Claim that something is a word (e.g. a hero); give examples, contrast with non-examples, as "prove your point")

Plan chapters before you write them.

- Think of the questions people will ask, and answer them.

Writing Information Chapters

- Write in paragraphs.
- Cite examples from the text, quoting parts of the text.
  According to Kristie Lewis, school was a luxury she never took for granted.
- Be sure to give several pieces of evidence for a point.
  One example... Another example... Also, ...
- Once you include evidence, reflect about the ways that evidence supports your point.

Information Writers Combine a Variety of Information

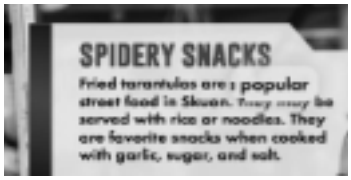
- Explanations
- Descriptions
- Quotations → from other texts or experts
- Vocabulary Words in **bold**
- Definitions · Glossary
- Maps and Photographs
- Text boxes
- Statistics
- Observations
- Lists
- Diagrams With Labels

Revise

Define key terms and use technical vocabulary

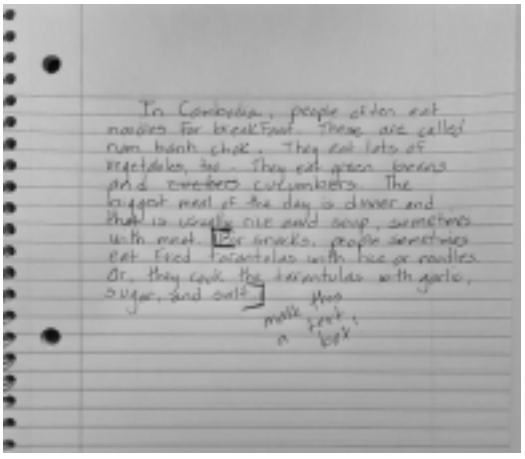
Western-style clothing is common in Phnom Penh. But older Cambodians tend to dress more **traditionally**. Many wear sarongs, or large rectangular pieces of cloth that are wrapped around the waist.

Provide a surprising fact or statistic



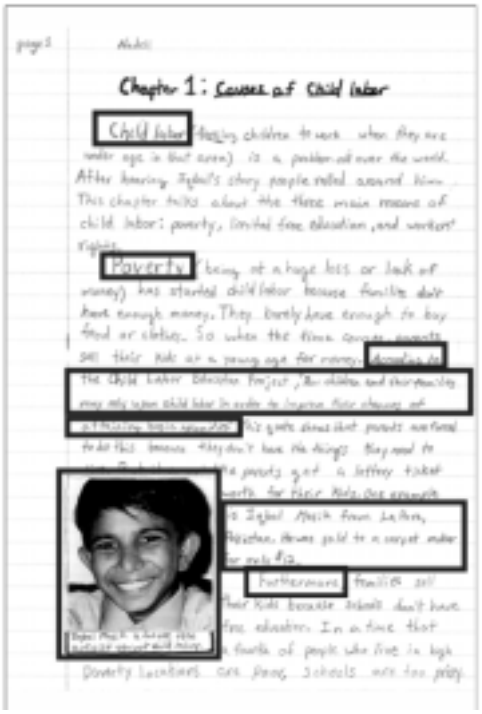
Include a glossary to define key terms.

Revise



Writing Information Texts Well

- Build a logical structure, so the progression from one part to the next makes sense.
- Write with a variety of specific, concrete information.
- Glue the bits of information and discussion together with transition words.
- Elaborate with details that bring the text to life (examples, statistics, stories, facts, your subject's own words).
- Make your sentences more complex so you sound more authoritative.
- Use text features purposefully, to teach information in new and special ways.
- Craft introductions that frame each chapter and the whole book.
- Incorporate quotations to:
  - Bring a person to life
  - Build an idea
  - Highlight information
  - Give authority to your writing
- Lead into and out of quotations and introduce the source.



Questions to Ask Yourself as You Edit

1. Does this make sense? Are any words or parts missing?
2. Are all my sentences complete? Have I checked for run-ons and fragments?
3. Have I used correct capitalization (for names and the beginning of sentences)?
4. Have I used commas and quotation marks for dialogue?
5. Have I checked to see that all my verbs and subjects agree? Are my verbs in the right tense (past, present, future)?
6. Do the words all seem to be spelled right? Do they look right? Have I checked any I'm uncertain of?
7. Have I checked for frequently confused words (*to, too, two; there, their*)?
8. Have I paragraphed and indented?

Edit!!

Today there are more than 16 million people live in Cambodia. ?

The largest religious site in the world is the temple of angkor wat in siem reap. ?

Their are many different kinds of interesting animals in Cambodia. ?

Name: _____

Latin and Greek Prefixes: Ante- and Uni-

Many prefixes we use in English originally come from Greek or Latin words. The prefix *ante-* is from a Latin word meaning "before." The prefix *uni-* is from a Latin word meaning "one" or "single." If you understand what the prefix means, it will help you understand the meaning of the whole word. For example, the root *cycle* means "wheel." Combine *uni-* with *cycle*, and it becomes the word *unicycle*. Based on its original meaning, *unicycle* means "one wheel" or a vehicle with one wheel.

Use the list in the bank to make five different English words out of *ante-* and *uni-*. You may add a suffix or change the spelling a little if needed. Write a sentence for each word you make and circle the word you made with the prefix. Be sure to use words for both *ante-* and *uni-*.

Word Bank

bellum
cedent
chamber
corn
form
fy
lateral
room
son
verse

Sentences:

1.

2.

3.

4.

5.

Learning Goals for May 11th-15th

We will review how to divide fractions and review how to divide mixed numbers.	We will also review how to order, compare, and graph integers on a coordinate plane as well as compare absolute values.

SUGGESTED SCHEDULE

Monday	Tuesday	Wednesday	Thursday	Friday
5-A-Day Math Review **Dividing Fractions**	**5-A-Day Math Review** **Dividing Mixed Numbers**	**5-A-Day Math Review** **Comparing, ordering, and graphing integers**	**5-A-Day Math Review** **Graphing Points on a Coordinate plane**	**Absolute Value & Coordinate Plane.** **Dividing Fractions Puzzle**

Name: _____ Date: _____

Book 6

5-A-Day Math Review: Week 2

Monday

① Express the ratio in three different ways (grey to total).

☐/☐ ☐ to ☐ ☐ : ☐

② Use an integer to describe the situations.

5 degrees below 0 _____

32 degrees above 0 _____

③ Write an expression to represent:

"6 more than y"

④ List all the factors. Circle the GCF.

5:
10:

List 5 multiples. Circle the LCM.

4:
6:

⑤ 1.44 ÷ 0.3 = 3.6 × 4.2 =

Tuesday

① $33.00 for 11 pounds of meat

rate = _____ unit rate = _____

②

Exponent Form	Expanded Form	Standard Form
2^3		
4^2		
3^3		

③ 3 is what percent of 10?

$$\frac{\text{part} \rightarrow \square}{\text{whole} \rightarrow \square} = \frac{\square}{100} \leftarrow \text{percent}$$

④ Sebastian carried $\frac{1}{2}$ liter of water on a hike. He drank $\frac{2}{3}$ of the water. How much water did he drink?

⑤ Write an equation to describe the relationship in each table.

_____ _____

x	y
2	7
3	8
4	9
5	10
6	11

x	y
0	3
1	4
2	5
3	6
4	7

Name: _____ Date: _____

Book 6

5-A-Day Math Review: Week 2

Wednesday

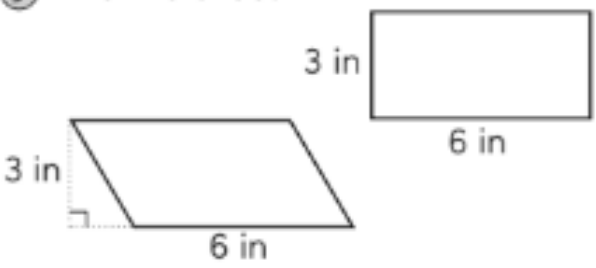
① Add parentheses to make true.

$4 \times 7 + 5 = 48$

$8 \bullet 5 - 3 \bullet 4 = 64$

② Model and solve. $3 \div \frac{3}{4} =$

③ Find the area.



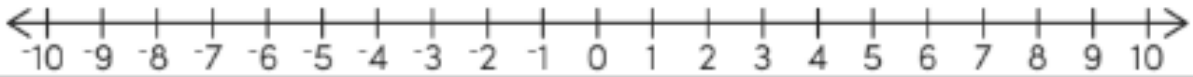
④ Solve

$\frac{1}{3} = \frac{\square}{\square}$ $\quad \frac{3}{4} = \frac{\square}{\square}$

$+ \frac{1}{2} = \frac{\square}{\square}$ $\quad - \frac{1}{2} = \frac{\square}{\square}$

⑤ Write > or < to make each statement true. Use the number line for help.

$-5 \bigcirc -8$ $\quad 4 \bigcirc -10$ $\quad 0 \bigcirc -9$ $\quad -7 \bigcirc 1$ $\quad 7 \bigcirc 8$



Thursday

① Use substitution to match these solutions to their equations.

{6, 0, 3, 7}

$5 + a = 12$, $a =$ ____

$b + b + 1 = 7$, $b =$ ____

$c + 3 = 9$, $c =$ ____

② Which expression is equal to:

$x + x + x + x$

Ⓐ $4 + x$ $\quad$ Ⓑ $x - 4$

Ⓒ $4x$ $\quad$ Ⓓ $\frac{x}{4}$

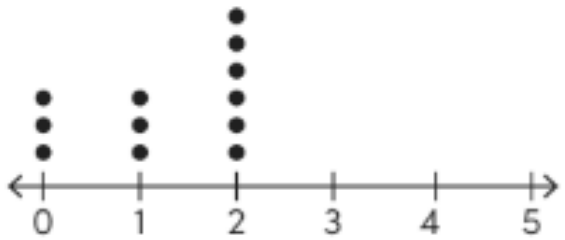
③ Math test scores:
93, 86, 93, 85, 73

mean = _____ median = _____

mode(s) = _____ range = _____

Class Survey:
How many pets do you have?

0, 3, 1, 2, 2, 2, 0, 3, 2, 4, 1, 2, 1, 0, 2



Number of Pets

④ Use the survey data to complete the dot graph.

⑤ How many people participated in the survey?

REVIEW: Dividing Fractions

Name _____

Key Concept and Vocabulary

$$\frac{2}{3} \div \frac{1}{2} = \frac{2}{3} \cdot \frac{2}{1} = \frac{2 \cdot 2}{3 \cdot 1} = \frac{4}{3}$$

Invert and multiply.

Visual Model

There are 2 "one-thirds" in two-thirds.

$$\frac{2}{3} \div \frac{1}{3} = \frac{2}{3} \cdot \frac{3}{1} = 2$$

Skill Examples

1. $\frac{2}{5} \div \frac{1}{5} = \frac{2}{5} \cdot \frac{5}{1} = \frac{2 \cdot 5}{5 \cdot 1} = 2$
2. $\frac{2}{5} \div 5 = \frac{2}{5} \cdot \frac{1}{5} = \frac{2 \cdot 1}{5 \cdot 5} = \frac{2}{25}$
3. $\frac{9}{4} \div \frac{3}{4} = \frac{9}{4} \cdot \frac{4}{3} = \frac{9 \cdot 4}{4 \cdot 3} = 3$
4. $6 \div \frac{1}{2} = \frac{6}{1} \cdot \frac{2}{1} = \frac{6 \cdot 2}{1 \cdot 1} = 12$

Application Example

5. You drive 25 miles in one-half hour. What is your average rate?

$$25 \div \frac{1}{2} = \frac{25}{1} \cdot \frac{2}{1} = 50 \text{ mi/h} \qquad r = \frac{d}{t}$$

∴ Your average rate is 50 miles per hour.

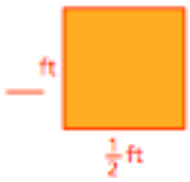
PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com

Find the quotient. Write your answer in simplified form.

6. $\frac{3}{5} \div \frac{1}{5} =$ _____
7. $4 \div \frac{1}{2} =$ _____
8. $\frac{2}{3} \div \frac{1}{6} =$ _____
9. $\frac{1}{6} \div \frac{2}{3} =$ _____
10. $\frac{2}{3} \div 2 =$ _____
11. $\frac{3}{4} \div 4 =$ _____
12. $\frac{3}{7} \div \frac{3}{7} =$ _____
13. $\frac{3}{7} \div \frac{7}{3} =$ _____
14. $5 \div \frac{1}{2} =$ _____
15. $\frac{9}{4} \div \frac{1}{4} =$ _____
16. $\frac{1}{4} \div \frac{1}{2} =$ _____
17. $\frac{3}{11} \div 11 =$ _____

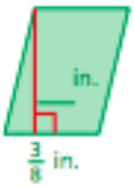
Find the height of the rectangle or parallelogram.

18. 

Area $= \frac{1}{4}$ ft^2

19. 

Area $= \frac{2}{25}$ cm^2

20. 

Area $= \frac{3}{16}$ in.^{2}

21. 

Area $= \frac{1}{50}$ m^2

22. **SPEED** You drive 15 miles in one-fourth hour. What is your average speed? _____

23. **MAGNETIC TAPE** A refrigerator magnet uses $\frac{5}{8}$ inch of magnetic tape. How many refrigerator magnets can you make with 10 inches of magnetic tape? Explain.

_____

REVIEW: Dividing Mixed Numbers

Name _____

Key Concept and Vocabulary

Rewrite as improper fractions.

$$2\frac{1}{2} \div 5 = \frac{5}{2} \div \frac{5}{1}$$

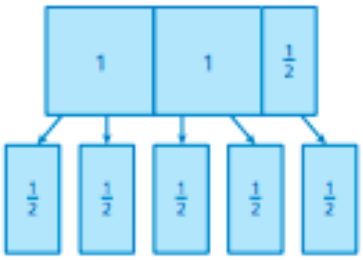
$$= \frac{5}{2} \times \frac{1}{5}$$

$$= \frac{1}{2}$$

Visual Model

Divide $2\frac{1}{2}$ into five equal parts. Each part is $\frac{1}{2}$.

$$2\frac{1}{2} \div 5 = \frac{1}{2}$$



Skill Examples

1. $5 \div 2\frac{1}{2} = \frac{5}{1} \div \frac{5}{2} = \frac{5}{1} \times \frac{2}{5} = 2$
2. $3\frac{3}{4} \div 2\frac{1}{2} = \frac{15}{4} \div \frac{5}{2} = \frac{15}{4} \times \frac{2}{5} = \frac{3}{2} = 1\frac{1}{2}$
3. $4\frac{1}{6} \div 1\frac{2}{3} = \frac{25}{6} \div \frac{5}{3} = \frac{25}{6} \times \frac{3}{5} = \frac{5}{2} = 2\frac{1}{2}$
4. $7\frac{1}{3} \div 11 = \frac{22}{3} \div \frac{11}{1} = \frac{22}{3} \times \frac{1}{11} = \frac{2}{3}$

Application Example

5. You need $2\frac{1}{2}$ inches of ribbon to make a Blue-Ribbon award. How many awards can you make with 35 inches of ribbon?

$$35 \div 2\frac{1}{2} = \frac{35}{1} \div \frac{5}{2} = \frac{35}{1} \times \frac{2}{5} = 14$$

∴ You can make 14 awards.

PRACTICE MAKES *PURR*-FECT™

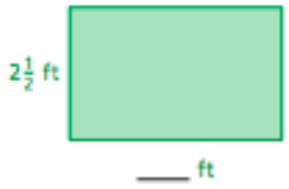
Check your answers at BigIdeasMath.com.

Find the quotient. Write your answer as a whole or mixed number in simplest form.

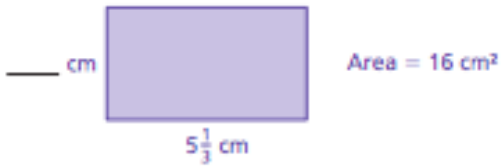
6. $4\frac{1}{2} \div 9 =$ _____
7. $3\frac{3}{7} \div 8 =$ _____
8. $4\frac{2}{3} \div 7 =$ _____
9. $1\frac{7}{9} \div 4 =$ _____
10. $8 \div 1\frac{1}{3} =$ _____
11. $32 \div 3\frac{1}{5} =$ _____
12. $11 \div 2\frac{3}{4} =$ _____
13. $9 \div 1\frac{1}{2} =$ _____
14. $5\frac{1}{2} \div \frac{1}{2} =$ _____
15. $\frac{1}{2} \div 1\frac{1}{2} =$ _____
16. $1\frac{1}{4} \div 1\frac{1}{4} =$ _____
17. $3\frac{1}{2} \div 1\frac{1}{3} =$ _____

Find the missing dimension.

18.



19.



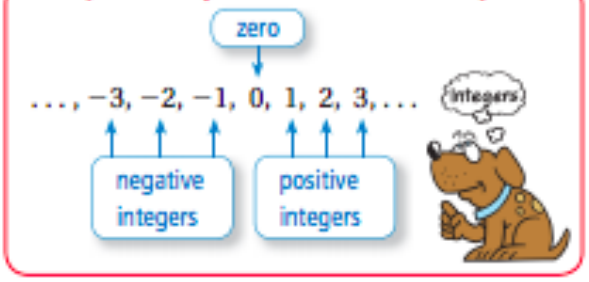
20. **RED RIBBONS** You need $3\frac{1}{2}$ inches of ribbon to make a Red-Ribbon award. How many awards can you make with 35 inches of ribbon? _____

21. **SHIPPING** You are stacking books into a shipping box that is 15 inches high. Each book is $1\frac{1}{4}$ inches thick. How many books can you fit in a stack? _____

REVIEW: Comparing, Ordering, and Graphing Integers

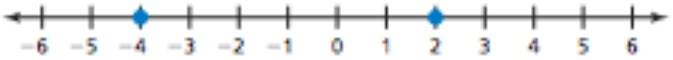
Name _____

Key Concept and Vocabulary



Visual Model

Number Line



$-4 < 2$ because -4 is to the left of 2 on the number line.

Skill Examples

1. $0 \leq 4$ "0 is less than or equal to 4"
2. $-1 > -3$ "-1 is greater than -3"
3. $-2 < -1$ "-2 is less than -1"
4. $2 > -2$ "2 is greater than -2"
5. $3 \geq 2$ "3 is greater than or equal to 2"

Application Example

6. The temperature in Seattle is 4°F.
The temperature in Denver is −6°F.
Which temperature is greater?

$-6 < 4$ "-6 is less than 4"

∴ The temperature is greater in Seattle.

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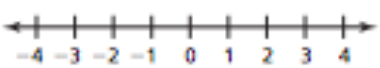
Check your answers at BigIdeasMath.com.

Graph the two numbers. Then compare them using < or >.

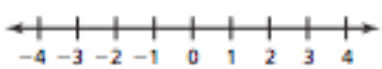
7. $-3 \square 2$

8. $-1 \square 0$

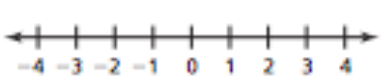
9. $-1 \square -4$



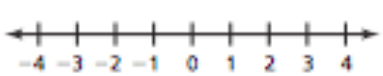
10. $1 \square 3$



11. $0 \square 2$



12. $3 \square -1$



Order the temperatures from least to greatest.

13. -5°F, 13°F, 0°F, 5°F, 2°F, 20°F

_____

14. 7°C, -4°C, -11°C, 0°C, 8°C, -12°C

_____

Use an integer to describe the real-life situation.

15. A *profit* of $5 _____
A *loss* of $5 _____

16. A *depth* of 8 ft _____
A *height* of 4 ft _____

17. A *decrease* of 5°F _____
An *increase* of 8°F _____

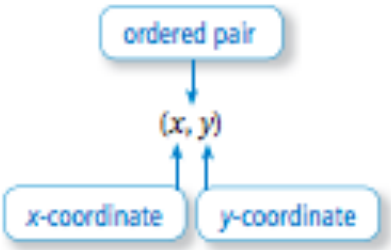
18. **BUSINESS LOSS** During its first week, a business had a loss that was greater than $4, but less than $6. Circle each integer that could represent this loss.

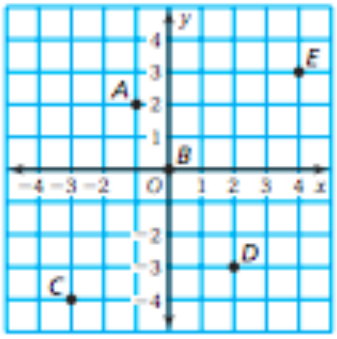
$-7, $ $-6, $ $-5, $ $-4, $ $-3, $ $-2, $ $-1, $ $0, $ $1, $ $2, $ $3, $ $4, $ $5, $ $6, $ $7

REVIEW: Coordinate Plane

Name _____

Key Concept and Vocabulary





Skill Examples

1. $A(-1, 2)$ *(Quadrant II)*
2. $B(0, 0)$ *(origin)*
3. $C(-3, -4)$ *(Quadrant III)*
4. $D(2, -3)$ *(Quadrant IV)*
5. $E(4, 3)$ *(Quadrant I)*

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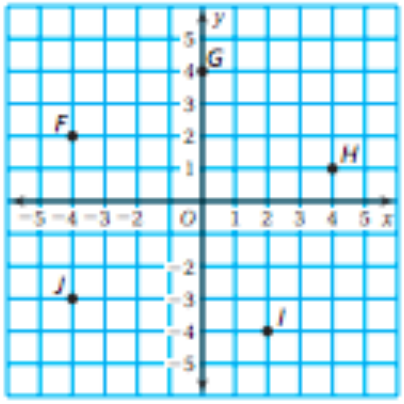
Check your answers at BigIdeasMath.com.

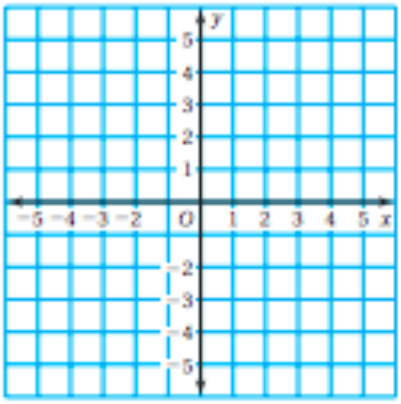
Write the ordered pair that represents the point in the coordinate plane.

6. F _____
7. G _____
8. H _____
9. I _____
10. J _____

Plot the ordered pair in the coordinate plane. Name the quadrant for the point.

11. $K(-3, 5)$ _____
12. $L(-3, 0)$ _____
13. $M(2, 5)$ _____
14. $N(4, -2)$ _____
15. $P(-2, -4)$ _____





Name: _____ Date: _____

6th Grade Math Review - Number Systems

I can order and explain absolute value.

1) Use <, >, or = to compare the following rational numbers.

$-4 \_\_\_ -7$ $\quad 2.4 \_\_\_ -2.4$ $\quad |-8| \_\_\_ 8$ $\quad |3.5| \_\_\_ |-4.5|$

2) In Detroit, Michigan, the temperature was -13 degrees. In Iowa City, Iowa, the temperature was -17 degrees. Which city was colder?

3) Find the absolute value of the following numbers.

$\|-3\|$	$\|2.25\|$	$\|-1,987\|$	$\|0\|$	$\|-15.264\|$
____	_____	_____	____	_____

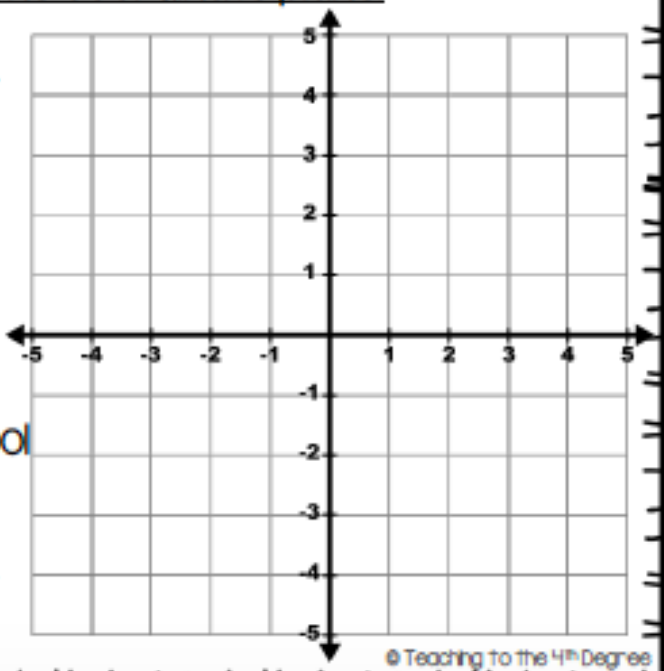
4) Melina has an account balance of greater than -75 dollars. Select which statement best represents the situation.

a. She owes the bank more than $75.
b. She owes the bank less than $75.
c. She owes the bank exactly $75.

I can solve real-world problems using the coordinate plane.

1) Ordered pairs for the library, school, park, and bank are given below. Graph each point, then answer the questions.

Library: L (-4, 3)
School: S (2, 3)
Park: P (-4, -5)
Bank: B (2, -5)



2) How many units is it from the school to the bank?

3) How many units is it from the park to the bank?

2.6 Puzzle Time

What Does An Ant Use To Keep All Of Its Hair In Place?

Write the letter of each answer in the box containing the exercise number.

Divide. Write the answer in simplest form.

1. $1\frac{3}{5} \div \frac{4}{5}$
2. $5\frac{1}{4} \div \frac{3}{4}$
3. $12\frac{2}{5} \div \frac{1}{5}$
4. $2\frac{2}{3} \div 2\frac{2}{3}$
5. $7\frac{1}{7} \div \frac{10}{11}$
6. $3\frac{1}{6} \div \frac{5}{6}$
7. $\frac{7}{9} \div 2\frac{13}{18}$
8. $12\frac{1}{2} \div 15$
9. $14 \div 9\frac{1}{3}$
10. $5\frac{1}{8} \div 6\frac{5}{6}$
11. $3\frac{5}{8} \div 5\frac{4}{5}$
12. $16 \div 4\frac{2}{3}$
13. $4\frac{1}{4} \div \frac{1}{8}$
14. $17 \div 2\frac{4}{15} \div 2\frac{5}{12}$
15. $1\frac{3}{7} \div \frac{5}{6} \div 4\frac{4}{5}$
16. $2\frac{5}{8} \div 1\frac{5}{9} \times 1\frac{1}{9}$
17. $2\frac{3}{11} \div \frac{4}{9} \div 1\frac{7}{15}$

Answers

E. $1\frac{7}{8}$	**A.** $3\frac{3}{7}$
G. 1	**D.** $1\frac{1}{2}$
H. 2	**P.** $\frac{2}{7}$
R. 34	**X.** $\frac{5}{8}$
U. $7\frac{6}{7}$	**Y.** 7
A. $9\frac{11}{12}$	**O.** $2\frac{19}{33}$
T. $\frac{5}{6}$	**B.** $\frac{3}{4}$
L. 62	**S.** $3\frac{4}{5}$
R. $\frac{5}{14}$	

16	11	8	13	14		1	17	3	9		10	5	4		6	7	15	12	2

Check out the website below for inspiration for creating your own chain reaction machine like Rube Goldberg. Send a video of the results to your teacher!

RUBE GOLDBERG MACHINE

https://tinkerlab.com/engineering-kids-rube-goldberg-machine/

THINGS THAT ROLL

Marbles
Balls: Tennis, Baseball, Bowling, etc.
Toy Cars
Dominoes
Skateboard
Roller Skate

RECYCLABLES

Cardboard
Cereal Boxes
Cardboard Rolls
Plastic Water Bottles
Cans
Aluminum Foil

THINGS THAT MOVE

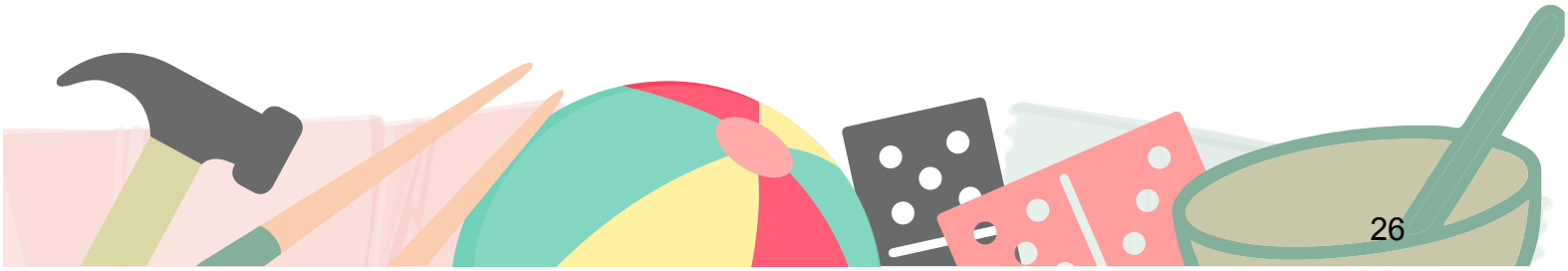
Mousetrap
Dominoes
Toaster
Fan

EVERYDAY MATERIALS

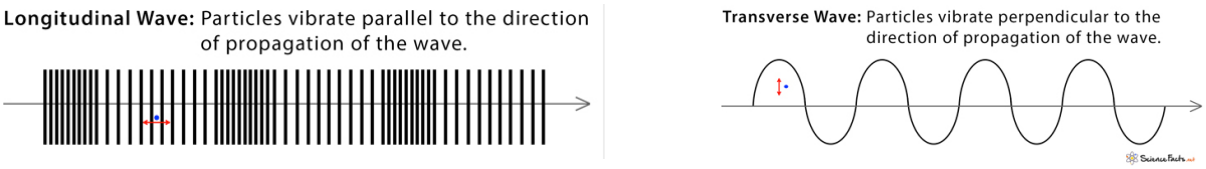
Chopsticks
Popsicle Sticks
Ruler
Wooden Blocks
Bowl
String
Tape
Sand
Pins
Hammer
Balloons
Water
Fan
Vinegar and Baking Soda

RAMPS

Toy Train Tracks
Marble Runs
Books
Trays
PVC pipe
Plastic tubing
Gutters



Mechanical Waves



Click on this link launch an interactive lesson on mechanical waves. When prompted, choose "Continue as a Guest". Your teacher will tell you how to submit your work.

https://mass.pbslearningmedia.org/resource/ilunctv18-sci-ilmechwave/mechanical-wave/

"Feel the Wave" Transcript:

Ever been in an earthquake? Although we do get a dozen or so per year in Massachusetts, it's not an everyday danger here, like it is in other states. But no matter where they hit, and how high up the Richter scale they go, scientists can use the seismic waves earthquakes produce to find out where they began.

Seismic waves are a type of mechanical wave. They carry the earthquake's energy through the ground. Mechanical waves can also carry energy through the air, or the water.

As long as there's something – a medium – that they can move through, mechanical waves are behind the energy we hear, ride, feel, and run from.

Vocabulary

Amplitude: A wave's intensity; the maximum distance a wave carries the particles of a medium from its original position.

Electromagnetic Wave (or Light Wave): A disturbance that can carry energy from one place to another through a medium, or through a vacuum.

Energy: The ability to do work. Examples of energy include light, sound, heat, and electricity.

Frequency: The number of waves produced during a given amount of time.

Longitudinal Wave: A wave in which the particles of the medium move in the same direction as the wave itself is moving.

Mechanical Wave: A disturbance that carries energy from one place to another through a medium—a liquid, gas, or solid.

Medium: Matter—such as a liquid, gas, or solid—that mechanical waves carry energy through.

Particle: A tiny portion of matter. When waves carry energy through a medium, the waves move the particles of the medium temporarily.

Seismic Wave: A wave that carries energy during an earthquake.

Transverse Wave: A wave in which the particles of the medium move in a direction perpendicular to the direction the wave itself is moving.

Wave: a disturbance that carries energy from one place to another.

Wavelength: The distance between any point on a wave to an identical point on the next wave.

"Disturbing Behavior" Transcript:

Waves are all around us. From the light we see, to the sound we hear, to the earthquake that shakes the ground. And the thing that makes a wave a wave is that it transports energy from one place to another. There are different types of waves (mechanical, electromagnetic) that transport energy through different environments (solid, liquid, gas, vacuum).

Sound, earthquakes, and waves in water are all mechanical waves, meaning they use a medium – actual physical particles – to pass the energy along.

The birth of a mechanical wave starts with a disturbance. Energy is applied to the medium and the particles of that medium bump, push, or pull against one another. These vibrations transfer the energy from one place to another while the medium it is transferred through stays put. Although the particles move back and forth, or up and down, or around in circles, they don't actually change locations. It's only the energy that travels – and it can travel really, really far.

So when you hear that sound from afar, you can thank all the little particles that transferred that wave from here to there.

"Measuring Waves" Transcript:

Mechanical waves carry energy through a medium from one place (source) to another. But depending on the medium, the energy interacts with the particles in different ways.

Waves that move the medium up and down are called transverse waves. And waves that move the medium back and forth are called longitudinal waves.

Each of these waves has characteristics that can be measured to determine the distance between waves (wavelength), how fast the medium vibrates (frequency), and how intense (amplitude) the energy is.

First you have the wavelength, which is a measurement of the distance between one peak – or one compression – to another. Then there is the frequency, which is the measurement of how many waves go by in a period of time. And the amplitude measures how intense the wave is – how far each particle is getting pushed from its original resting place. The higher the amplitude, the more energy the waves are carrying.

So whether it's a loud noise vs. a small or a big ripple vs. a little one, these wave all share certain measurable characteristics.

"Seismic Waves" Transcript:

A great place to see longitudinal and transverse waves in action is during an earthquake. When energy builds up in the earth's crust, it is released during an earthquake by waves of energy traveling through the solid ground. These waves, called seismic waves, are examples of longitudinal and transverse waves and transfer energy in predictable ways.

The first type of wave that occurs and travels faster are called primary or P-waves. P-waves are longitudinal, meaning they compress and stretch the earth to move the energy outward. Then, slower moving secondary, or S-waves, follow. These are transverse waves and transfer energy by moving the earth's layers up and down, while moving the energy outward.

Both of these longitudinal and transverse waves transfer energy over long distances and can be measured (wavelength, frequency, amplitude) to determine the location of the source of the earthquake.

Physical Geography of India

Himalayas

The Himalayas are a mountain range in South Asia. The word "Himalaya" means "house of snow" in the ancient Indian language of Sanskrit. The Himalayas rise in the west in the modern day country of Pakistan. The mountains travel east through India, Nepal, and Bhutan. The mountain range is split into three different parts: the Shiwaliks, which are known as the Outer Himalayas, the Himachal, which are known as the Lesser Himalayas, and the Himadri, which are known as the Greater Himalayas.

Fifteen of the world's largest mountains are located in the Himalayan Mountain range. The tallest mountain on earth is located in the Mahalangur Himal sub-range of the Himalayas. It is 8,889 meter tall (29,163 feet tall).

Five major rivers run through the Himalayas. These include the Satluj, Beas, Jhelum, Chenab, and the Ravi River.

Many type of plants grow in the Himalayan Mountains. You can find trees, such as the Pine, Deodar, Fir, Oak, Birch trees. Rhododendron bushes and Juniper plants are also native to the mountains.

Physical Geography of India

Himalayas

The Himalayas are home to many biomes including montane grasslands and shrublands, coniferous forests, and tropical broadleaf forests. The Eastern Himalayas are home to the largest concentration of glaciers outside the polar regions of the planet.

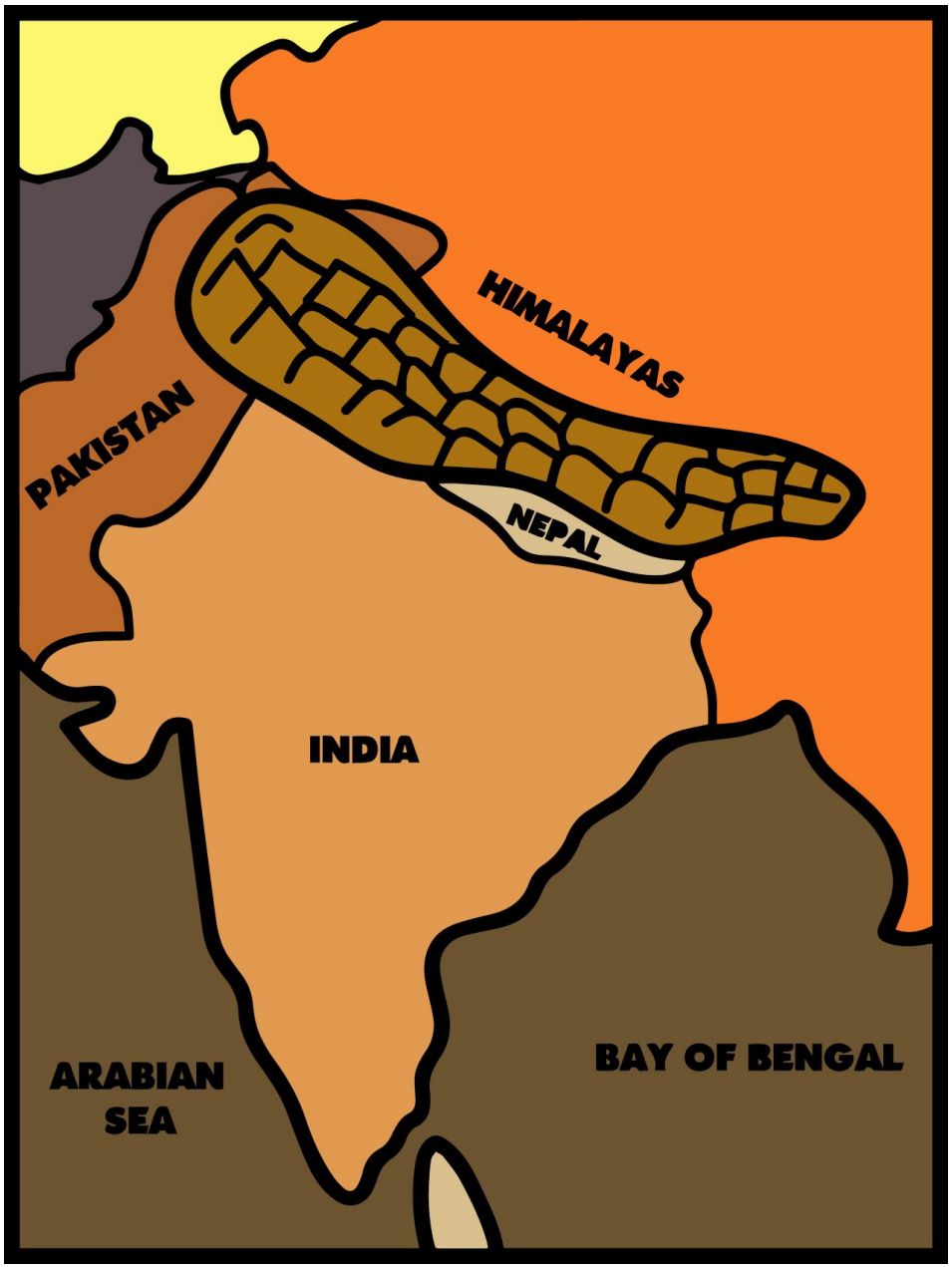
The Himalayas are filled with animals; some of them are even on the world's endangered species list. In the Himalayas you can find musk deer, tigers, snow leopards, elephants, crocodiles, yak, and wild boar.

The northern areas of the Himalayas are too cold to sustain much animal life. Many animals spend the warmer months in the northern Himalayas and migrate south for the winter months.

Physical Geography of India

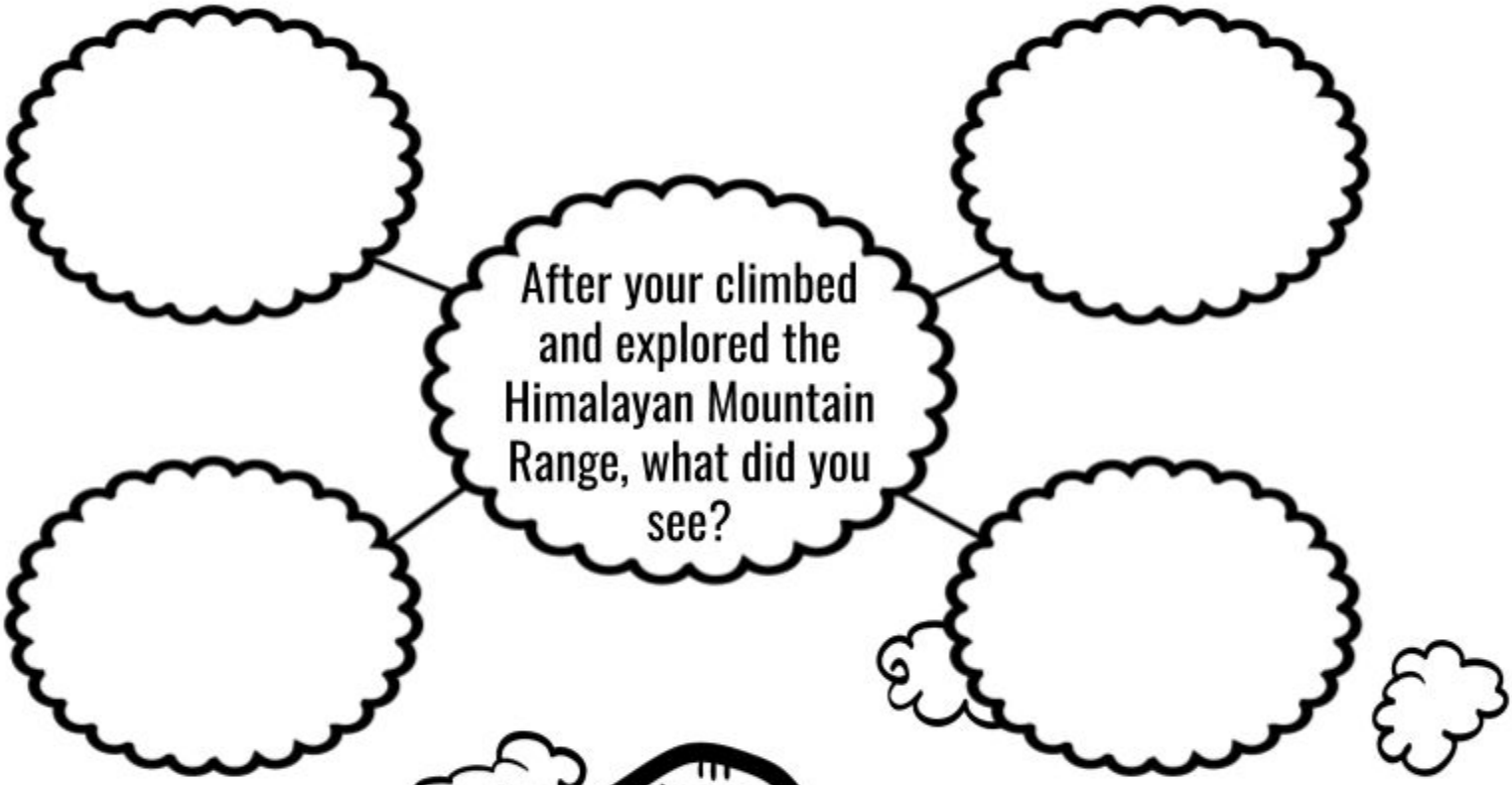
Himalayas

Go to
bit.ly/himalayasgeo
to explore the Himalayas through maps, video, and 360° photos.



Himalayan Mountains

Imagine that you climbed and explored the Himalayan Mountains. Use the information on the Himalayas Physical Features website and the readings to describe what you "saw". Cite textual and visual evidence.



How would you describe the size of the Himalayan Mountains?

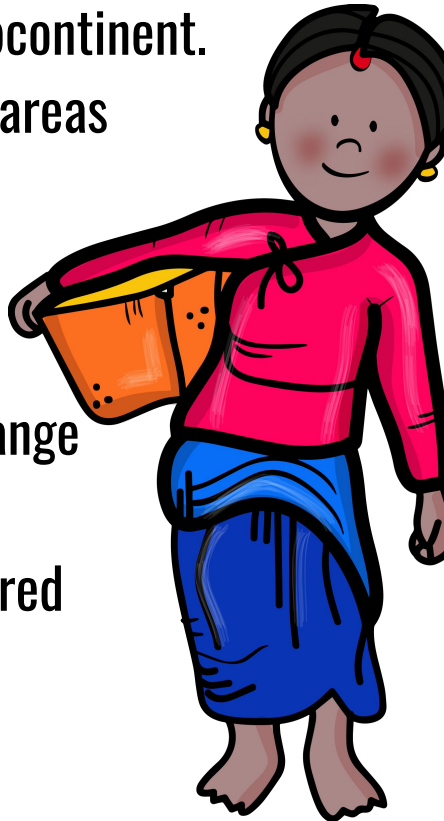
Imagine that you were hired by the Indian government to get more people to come visit the Himalayan Mountain Range. Write two to three sentences convincing people to vacation there. Cite textual and visual evidence.

Physical Geography of India

Himalayas

How did the Himalayas affect people, climate, culture?

- Historically, the Himalayas kept the Chinese and Indian people separated before the invention of modern transportation.
- Because it is difficult to travel in the Himalayas, cultural groups live in isolation. There are 40 languages spoken by the different cultural groups in the Himalayas and a variety of religions such as Buddhists, Hindus, and Christians.
- The Himalayas affect the climate of the Tibetan Plateau and the Indian Subcontinent. The mountains block winds from traveling to those areas and makes these areas warmer than areas at the same line of latitude.



How do people affect the Himalayas?

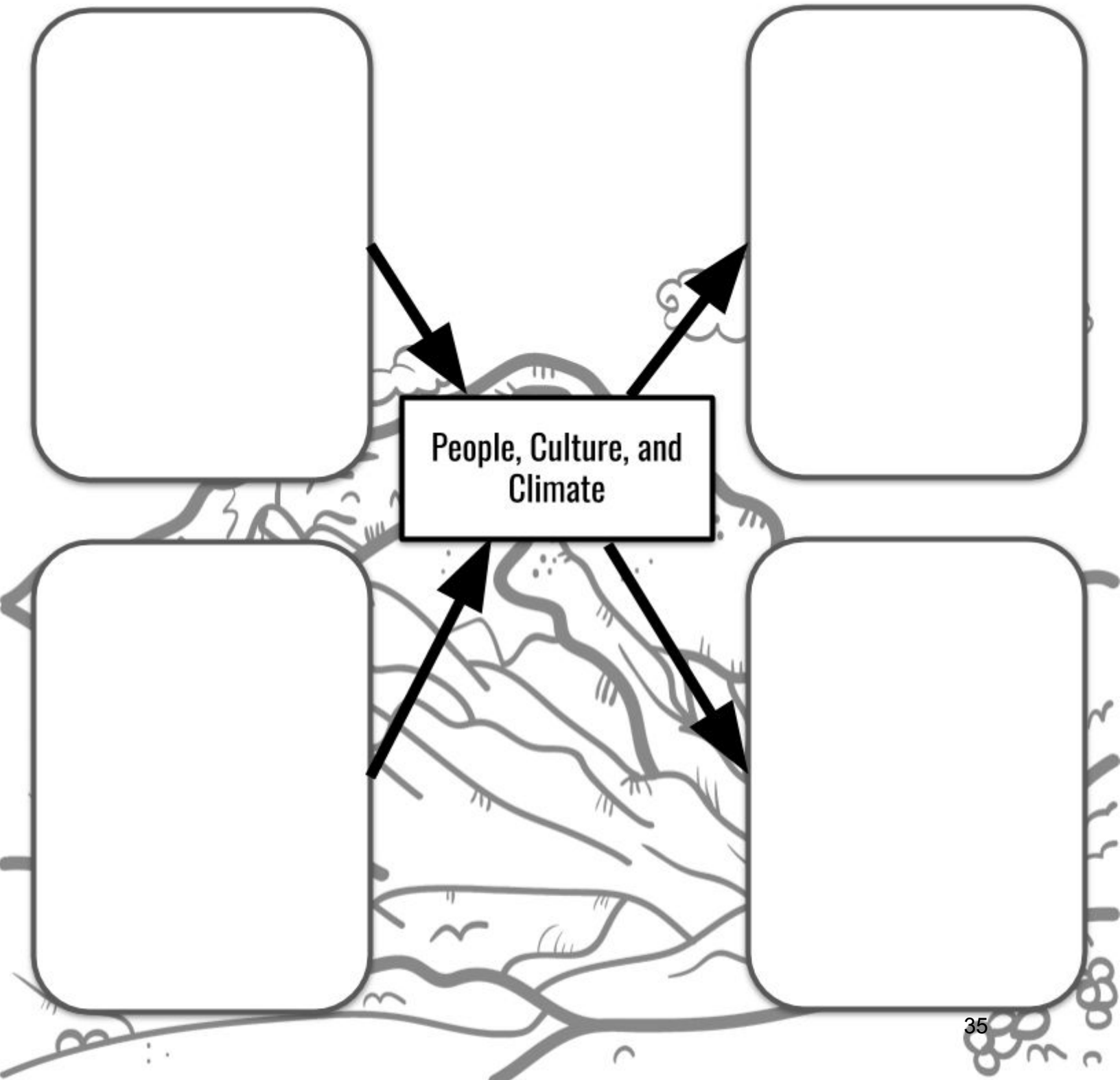
- Rising temperatures on earth are causing the glaciers to melt. This will change the flow of water which can affect wildlife, people and their jobs.
- More people have moved to the Himalayan region. These humans have cleared forests for farmland. This has ruined the habitats of animals.

Himalayan Mountains

After you read the section on the Himalayas Cause and Effect, describe 2 ways the Himalayas have affected people, culture, and climate and 2 ways people, culture, and climate have affected the Himalayas.

How do the Himalayas affect people, culture and climate?

How do people, culture and climate affect the Himalayas?



ESL at Home Gr. 6-8 Weeks 7-8

Use notebook paper to complete these activities. Do one each day!

Monday	Tuesday	Wednesday	Thursday	Friday
Choose a book page, magazine, or newspaper article. Tally how many times you find the words that start with letters: M R E	Go on a shape hunt. Find five things in your house for each shape: Hexagon Trapezoid Equilateral	How many words can you make from this word? educational	List 5 things that can be **chemical changes.** List 5 things that can be **physical changes**.	Imagine two of your friends went to your school when no one was there. Write or draw their adventure.
Monday	Tuesday	Wednesday	Thursday	Friday
Hide something in your home. Make a treasure map and let a family member try to find it.	Find four things in your home that are **transparent**. Find four things in your home that are **opaque**.	If you had your own restaurant, what would you serve? Write a description of your restaurant and create a menu with prices.	Make a list of all the herbivores, carnivores, and omnivores in your neighborhood.	Get three cups. Put a little bit of soap into eah cup. Fill the cups with different amounts of water. Count the minutes it takes for the bubbles to disappear. Which cup's bubbles disappeared first?