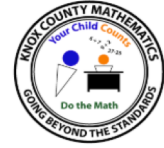
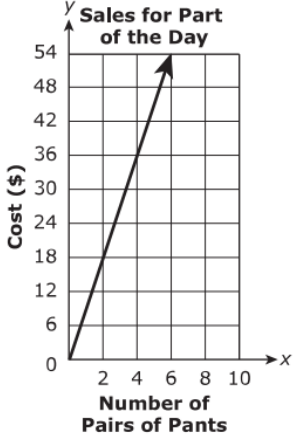
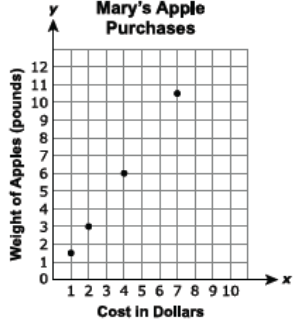


KCS  **home**

Seventh Grade Math

Week of May 4, 2020
knoxschools.org/kcsathome



A	B	C	D	E																									
<p>7.RP.A.2b Recognize and represent proportional relationships between quantities. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.</p>																													
<p>Craig earns extra money as a lifeguard. He earns \$37 for 4 hours and \$64.75 for 7 hours. Identify the constant of proportionality and write an equation for the proportional relationship.</p>	<p>The Super Shop is having a Grand Opening Sale. Today's specials include 2 shirts for \$25, 4 pairs of pants for \$36, and 2 dresses for \$44.</p> <p>The Super Shop is having a Grand Opening Sale. Today's specials include 2 shirts for \$25, 4 pairs of pants for \$36, and 2 dresses for \$44. Several clothing items were sold during the Grand Opening sale. A table of some shirt sales with missing data is shown. Complete the table.</p> <table border="1" data-bbox="541 841 865 1011"> <thead> <tr> <th>Number of Shirts</th> <th>Total Cost (\$)</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>25.00</td> </tr> <tr> <td>4</td> <td>50.00</td> </tr> <tr> <td></td> <td>87.50</td> </tr> <tr> <td>9</td> <td></td> </tr> </tbody> </table> <p>If c represents the cost, in dollars, and s is the number of shirts, write an equation that correctly identifies the relationship between the cost and the number of shirts.</p>	Number of Shirts	Total Cost (\$)	2	25.00	4	50.00		87.50	9		<p>Several pairs of pants were sold during the Grand Opening Sale. Sales for part of the day are shown in the graph.</p>  <p>Write the equation for the cost c, in dollars, per p pairs of pants. What is the cost of 8 pairs of pants?</p>	<p>By the end of the day, dress sales for Super Shop will be plotted on a graph. Determine if each ordered pair has a proportional relationship with the cost of the dresses. Select Yes or No for each ordered pair.</p> <table border="1" data-bbox="1270 743 1507 1060"> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>(3, 56)</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>(4, 88)</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>(5, 110)</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>(24, 1)</td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> </tbody> </table>		Yes	No	(3, 56)	<input type="radio"/>	<input type="radio"/>	(4, 88)	<input type="radio"/>	<input type="radio"/>	(5, 110)	<input type="radio"/>	<input type="radio"/>	(24, 1)	<input type="radio"/>	<input type="radio"/>	<p>Mary buys apples at the store. She paid \$1.00, \$2.00, \$4.00, and \$7.00 for apples on four different days. The graph shows the number of pounds Mary got for each amount she paid.</p>  <p>One day Mary paid \$5.00 for apples at the same store. Using the relationship shown in the graph, how many pounds of apples did Mary buy?</p>
Number of Shirts	Total Cost (\$)																												
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<p>Answer Key</p>																													
<p>9.25; If y = earnings and x = hours, $y = 9.25x$</p>	<p>7, 112.5 $c = 12.50s$</p>	<p>$C=9p$ 72</p>	<p>No, Yes, Yes, No</p>	<p>7.5 pound</p>																									



Seventh Grade Social Studies



***There will be a short video lesson of a Knox County teacher to accompany this task available on the KCS YouTube Channel and KCS TV.**

7th Grade Social Studies Task

Scientific Revolution: The People, Theories and Inventions that Changed the World.

Standards:

- 7.50 Compare and contrast heliocentric and geocentric theories of the Greeks (geocentric), Copernicus (heliocentric), and Kepler (elliptical orbits).
- 7.51 Examine Galileo Galilei's theories and improvement of scientific tools, including the telescope and microscope.
- 7.52 Explain the significance of the following in regards to the Scientific Revolution: Sir Francis Bacon in establishing the scientific method and Sir Isaac Newton's three Laws of Motion.

Resources and Materials:

- Scientific Revolution Reading
- Scientific Revolution Foldable
- Pencil, Pen, Markers, colored pencils or crayons
- Scissors

Background:

Many of you have completed the Module on the Scientific Revolution. As a refresher, a Scientific Revolution Reading on the key people and theories will be provided.

Activities:

1. Read the Scientific Revolution Reading.
2. Fold the foldable to cover the middle section (like elevator doors).
3. Cut along the black lines so you can move each scientist or theory flap.
4. Answer the questions on the back of each flap (using the text as a resource).
5. Draw a symbol for each scientist or theory in the middle section (under the flaps).

Scientific Revolution Reading

Newton's 3 laws of Motion:

1. An object in motion tends to stay in motion and objects at rest tend to stay at rest unless acted upon by unbalanced forces.
2. Force equals mass times acceleration $F=ma$
3. For every action there is an equal and opposite reaction.

Elliptical Orbits

Nicolaus Copernicus's heliocentric theory suggested that planets moved around the sun in circles. Later, **Johannes Kepler** developed a theory that *planets move in ellipses*, or ovals, and they do not travel at the same speed. Also, he suggested that planets move faster as they approach the sun, and slower when they are farther away.

Geocentric Model of the Universe

Ptolemy thought that all celestial objects- including the planets, sun, moon, and stars orbited the Earth. The view focused on the theory that the Earth was the center of the universe, and did not move at all.

Heliocentric Model of the Universe

Copernicus theorized the planets orbited the Sun, and that the moon orbited Earth. The Sun was in the center of the universe, it did not move, nor did the stars. This new theory went on to be proved accurate in many ways.

Steps in the Scientific Method

1. Make an observation
2. Generate a Question
3. Formulate a Hypothesis
4. Develop testable predictions
5. Gather Data to Test Predictions
6. Develop general theories or refine, alter, expand, or reject hypotheses

Galileo Galilei (1564-1642)

Galileo Galilei, an Italian scientist and inventor believed in conducting experiments to prove theories. He used his development of the spyglass to help prove Copernicus' view of heliocentrism (the sun is the center of the universe.) However, these theories conflicted the beliefs of the church at the time. He was tried for heresy and put on house arrest for the rest of his life.

Johannes Kepler (1571-1630)

Kepler believed that planets revolved around the sun in oval paths called *ellipses*, and **not** circular paths. He used mathematics and other tools to build upon Copernicus's theory on the solar system. Kepler also stated that planets do not always move at the same speed. This was the beginning of modern astronomy.

Nicolaus Copernicus (1473-1543)

In 1543, Copernicus published his book disagreeing with the common theory of how the universe was structured. Copernicus developed a *heliocentric theory of the universe*, meaning that the sun was the center of the universe. Copernicus's theory **disagreed** with church teachings and was immediately controversial.

Sir Francis Bacon (1561-1626)

Francis Bacon discovered and popularized the scientific method, whereby gathering and analyzing data from experiments and observations, rather than by using logic-based arguments discover the laws of science.

Sir Isaac Newton (1642-1726)

Sir Isaac Newton was an English mathematician, physicist, astronomer, theologian, and author. Newton's greatest contributions to the scientific revolution were his laws of universal gravitation and his three laws of motion.

Law of Universal Gravitation

Newton's law of universal gravitation states gravity is a force of attraction that pulls together all matter (anything you can physically touch). The more matter something has, the greater the force of its gravity.

3 Laws of Motion

1. An object in motion tends to stay in motion and objects at rest tend to stay at rest unless acted upon by unbalanced forces.
2. Force equals mass times acceleration ($F=ma$)
3. For every action there is an equal and opposite reaction.

Galileo

Why did the Catholic church want to stop the spread of Galileo's idea?

Kepler

How does Kepler's model of the 'universe' differ from Copernicus' model of the 'universe'?

Copernicus

What important theory of the 'universe' did Copernicus develop?

Frances Bacon

What is the name of Bacon's method of experimentation used to prove scientific theories?

Newton

Describe Newton's idea of gravity.

Scientific Revolution

Use the text provided to answer the essential questions. On the inside of the foldable, sketch a picture or create a symbol that signifies the bold word or words.

3 Laws of Motion

List Newton's 3 Laws of Motion.

Elliptical Orbits

Describe how planets move in ellipses or ovals.

Geocentric Theory

Describe the Geocentric theory.

Heliocentric Theory

Describe the Heliocentric theory.

Scientific Method

List the steps.



Seventh Grade

ELA

Analyzing Informational Text

Learning Strategies

Skimming/Scanning
Marking the Text
Graphic Organizer

Learning Targets

- Recognize text features and graphics in an informational text and use them to better comprehend ideas and information.
- Generate and refine a question for formal research.
- Integrate ideas from multiple texts to build knowledge and vocabulary about the role advertising plays in the choices of young consumers.

Preview

In this activity, you will read an article about marketing to children and begin to think about your own research on the topic.

VOCABULARY

ACADEMIC

Text features are aspects of a text designed to help you locate, understand, and organize information. Different text features are used to convey different types of information.



KNOWLEDGE QUEST

Knowledge Question:

What role does advertising play in the choices young consumers make?

Text Features

In this part of the unit, you will be reading informational texts. Informational texts usually follow a different structure than short stories or other genres of fiction. For example, you might find the following **text features** in an informational text:

- **Organizing features** such as a table of contents, glossary, index, and references
- **Text divisions** such as introductions, summaries, sections with headings, footnotes or endnotes, and information about the author
- **Graphics** that present information in a visual format, such as diagrams, charts, tables, graphs, maps, timelines, and so on. Graphics support the information and ideas presented in the text.
- **Special formatting** such as boldface, italics, numbered or bulleted text, or the use of different typefaces and sizes. For example, in this list, the types of text features are placed in boldface to draw attention to them.

Setting a Purpose for Reading

- As you read, underline examples of survey results and put a star next to informational graphics.
- Circle unknown words and phrases. Try to determine the meaning of the words by using context clues, word parts, or a dictionary.

Informational Text

Mobile Kids

from Nielsen

1 These days, a kid with a smartphone in their hand is as common as seeing a kid playing with a yo-yo in the years before the digital age.

2 But today's kids aren't just carrying smartphones—they're mastering them. In fact, many are just as skilled as their parents—or even more so in some cases. So whether today's youth are texting, playing a game, or engaging in the plethora of other activities that smartphones offer, there's no doubt that this digital demo is one that marketers are keen to reach.

3 As the saying goes, with kid comes a parent. So what are parents' motivations and concerns when it comes to subscribing to a wireless service? To find out, Nielsen's fourth-quarter 2016 Mobile Kids Report delved into the subject and shares the insights from respondents of parents of kids' ages 6–12 who answered on behalf of their children.

4 To start, the report looked at the age that kids get a smartphone. Slightly less than half (45 percent) of mobile kids got a service plan at 10–12 years old. The most predominant age when kids got a service plan was age 10 (22 percent), followed by 8 years old (16 percent) and ages 9 and 11 were tied at 15 percent. The mobile child also skews more male (56 percent) than female (44 percent), with at least one in five being Hispanic. Among 10–12-year-olds, the highest percentage of age represented was age 10 at 34 percent. The vast majority (93 percent) are on the same plan as their parents, and 72 percent have all mobile wireless services including voice, messaging and data.

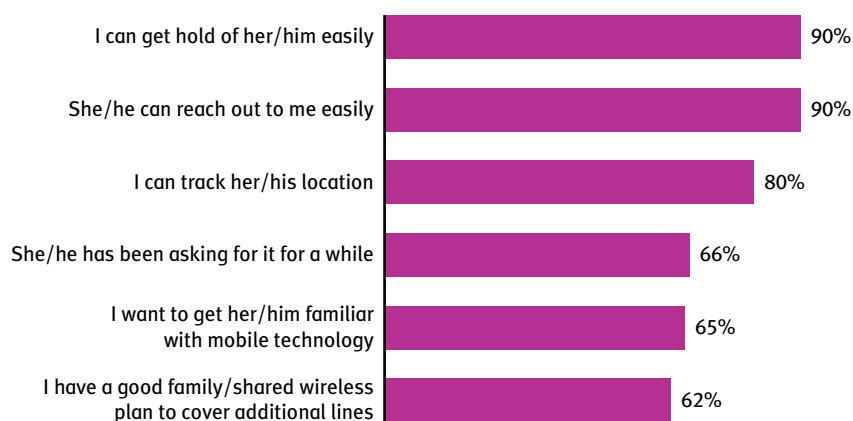
5 Among parents likely to get their kids wireless service before they turn 13, being able to get hold of their child easily and that their child can reach out to them easily (90 percent) were their top primary reasons for getting their child wireless service. 80 percent said so they could track their child's location, and 66 percent said that their child has been asking for wireless service for a while.

demo (demographic): group

6 And with parenting comes concern for the welfare of their child, as well as questions about their children's level of responsibility. Seventy-seven percent said that they are concerned that the phone could be lost easily. Seventy-two percent of parents were concerned that smartphones pose too much distraction, and 71 percent worried that their children would spend too much time with their devices. The lack of control of what content their kids would see online was also a concern (68 percent), and 67 percent expressed concern that their children might not know how to use their phones responsibly.

Why are parents getting their kids wireless service before their child turns 13?

Agree/strongly agree, among those likely to get their child wireless service



Read as: Among parents likely to get their child wireless service, 90% said getting hold of their child easily was a reason for getting their child wireless service before they turn 13.

Source: Nielsen

GRAMMAR & USAGE

Introductory Words and Phrases

A comma should be used after an introductory word or phrase at the beginning of a sentence. For example, look at the first sentence in paragraphs one, three, and four of “Mobile Kids.” They each begin with an introductory phrase: “These days,” “As the saying goes,” and “To start.” Each is also followed by a comma.

It's important to recognize this writing convention while reading and writing informational texts. As you read, look for introductory words and phrases. As you write and edit your own writing, remember that introductory words and phrases are separated from the rest of the sentence with a comma.

2.3

Tuesday: On separate paper or digitally, answer the Knowledge Quest and questions 1-3.

7 According to parents, the antidote to these concerns include better safety controls and features to block inappropriate content (55 percent), better usage controls to limit access (48 percent) and better service plan options for children (34 percent).

8 So once a child has a phone, how are they spending time on their device? The top mobile activities include text messaging (81 percent), downloading apps (59 percent) and playing preinstalled games and mobile internet/accessing websites (tied at 53 percent).

Top Mobile Activities



Read as: In Q4 2016 among kids 6–12, 81% of kids sent text messages which was their top mobile activity

Source: Nielsen

Methodology

9 Nielsen's Fourth-Quarter 2016 Mobile Kids Report gathered a sample of 4,646 parents aged 18+ years with kids between the ages of 6–12 years old. Parents of children aged 6–12 were identified through Nielsen's Mobile Insights Survey. Parent respondents answered on behalf of their 6–12 year olds.

Returning to the Text

- Return to the text as you respond to the following questions. Use text evidence to support your responses.
- 1. What was the goal of Nielsen's "Mobile Kids" survey? Explain using details from the article.
- 2. **KQ** Use context to clarify the meaning of the word *marketers* in paragraph 2. Explain how you determined the word's meaning using context clues.
- 3. Based on paragraph 2, what inference can you make about the intended audience? What details in the article support your inference?

Knowledge Quest

- What text features do you notice in this text?
- What is one detail from the graphs or charts you noticed that someone else might have missed?

Working from the Text

- 6. The author presents a lot of information and statistics about how and why kids under 13 use mobile devices. Some of this information is presented in the text of the article, and some is presented in the two graphs. How does the format of the information affect your understanding? Why do you think the author chose to use both formats?
- 7. What do you notice about the heading that comes before the last paragraph? Why do you think the author included this section?
- 8. Turn back to “How Kids Can Resist Advertising and Be Smart Consumers,” in the previous activity. Find one text feature the author used in this text. Why do you think the author chose to use this feature?

Thursday: Read "Advertising Techniques" and paraphrase as directed.
Advertising Techniques

To understand how advertisers market to teens, it is important to understand the many persuasive advertising techniques they use. Read the descriptions of advertising techniques that follow and then paraphrase each technique in your own words on a separate sheet of paper. .

Technique	Product Advertisement Example
<p>Bandwagon: Advertisers make it seem that everyone is buying this product, so you feel you should buy it, too. For example, an ad for a new video game may claim: “The ultimate online game is sweeping the nation! Everyone is playing! Join the fun!” This statement is intended to make you feel left out if you are not playing.</p>	
<p>Avant-Garde: This technique is the opposite of bandwagon. Advertisers make it seem that the product is so new that you will be the first on the block to have it. The idea is that only supercool people like you will even know about this product.</p>	
<p>Testimonials: Advertisers use both celebrities and regular people to endorse products. For example, a famous actor might urge consumers to buy a certain car. Pay close attention: sometimes the celebrity does not actually say that he or she uses the product.</p>	
<p>Facts and Figures: Statistics, percentages, and numbers are used to convince you that this product is better or more effective than another product. However, be aware of what the numbers are actually saying. What does “30 percent more effective than the leading brand” really mean?</p>	
<p>Transfer: To recognize this technique, pay attention to the background of the ad or to the story of the commercial. The transfer technique wants you to associate the good feelings created in the ad with the product. For example, a commercial showing a happy family eating soup may want you to associate a feeling of comfort and security with the company’s soup products.</p>	

Friday: Spend time looking for advertisements that are examples of these techniques. Write your examples in the column on the right across from each description.

KCS  home

Seventh Grade Science

Week of May 4, 2020
knoxschools.org/kcsathome

7th Grade Science: Week #5 May 4, 2020

How do we identify different types of mixtures?



Directions: This handout goes with a KCS Teacher Video. If you have access to the video, watch the video before doing this activity. You can find the videos here <https://www.knoxschools.org/Page/21816>

7.PS1.3 Classify matter as pure substances or mixtures based on composition.

Success Criteria: I will be able to distinguish between homogeneous and heterogeneous mixtures.

Essential Question: What observations do we make to identify different types of mixtures?

Homogeneous and Heterogeneous Mixtures Home Lab

Investigation 1:

- 1) Fill a glass or clear plastic cup halfway with water.
- 2) Take liquid food color and place one drop into the water.
- 3) Make observations for a few minutes and notice how the dye slowly dissolves in the water.
- 4) List your observations on a separate sheet of paper (drawings are great, too).



Does the color spread evenly through the liquid (forming a homogeneous mixture), or is the color not evenly mixed (forming a heterogeneous mixture)?

Investigation 2:

- 1) Take an empty water or cola bottle and fill $\frac{1}{3}$ the way with water.
- 2) Now add an equal amount of vegetable oil on top of the water.
- 3) Put the lid on the bottle and give it a good shake.
- 4) After mixing the oil and water, let the bottle sit.
- 5) List your observations on a separate sheet of paper.
(This may take several minutes)

Is this a homogeneous or heterogeneous mixture? How do you know?

On a separate sheet of paper, make a T-chart and title one side of the chart with Homogeneous Mixture and the other side Heterogeneous Mixture as shown to the right. See if you can list at least 5 mixtures on each side from your home. Possible places to find mixtures are your kitchen, the garage, or outside.

Homogeneous Mixture	Heterogeneous Mixture