

# ActivTable Activities

## Teacher Notes

# ActivTable Activities Teacher Notes

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# ActivTable Activities Teacher Notes

## INTRODUCTION

The ActivTable is provided with a range of engaging activities to encourage collaboration of small groups within the classroom. Many of the activities include teacher notes to help teachers with lesson preparation. Referring to these notes will help teachers to get the most out of the activities on the ActivTable. Student notes are also available within each activity toolbox to help guide users through the activities during the session.

The Activity Teacher Notes are available from the following locations:

- ActivTable via the Teacher Control Panel available in the Activities – see the ActivTable Quick Start Guide for further information about the Teacher Control Panel.
- Promethean Planet
- Promethean Knowledgebase

The availability of these activities may vary from country to country. Visit the ActivTable Activity Store to find activities available to download.

# ActivTable Activities Teacher Notes

## ANGLES IN THE REAL WORLD

SUBJECT AREA:	MATHEMATICS
GRADE RANGE:	GRADE 4
STANDARDS:	4.MD 5 / 4.MD 6
COGNITIVE LEVELS:	<b>EVALUATION (EVALUATE):</b> ESTIMATE, COMPARE, DECIDE, DISCRIMINATE, PREDICT, MEASURE, TEST
USERS:	MAX. 6

### OVERVIEW

This activity encourages role-play and collaboration as students estimate and measure angles found in real images as preparation for a museum exhibit.

Students will:

- estimate angles seen in real life images and record their estimations
- work together to sort the images according to angle size
- measure the angles using protractors and confirm their grouping of the images
- record the actual angle measurements of each image

This activity can be used during a unit on estimating and measuring angles. This activity may also be used to practice social interactions in real-world situations involving angles.

### TEACHER INSTRUCTIONS

#### GATHER PRIOR KNOWLEDGE

- Have you ever been to a museum? (Student experiences will vary.)
- How do objects come to be displayed in a museum? (Answers will vary but might include objects that are of historical interest or objects that are examples of a particular quality being displayed.)
- Who do you think prepares the objects that will be displayed? (Museum curators, museum directors, exhibit designers, and architectural historians work together to evaluate and sort items to place in a collection for display.)
- How do we measure angles? (Angles are measured in degrees, using an instrument called a protractor.)
- Have you noticed angles in real objects? Can you look around and find an example? (Answers will vary.)

#### INTRODUCE ACTIVITY

- Tell students they will take the roles of museum curator, museum director, exhibit designer, and architectural historian as they work together to sort images for a new museum exhibit on Angles in the Real World.
- Explain that they will work together to estimate, measure and record the angles seen in the images.
- First, they will estimate and record the size of the angles.
- Next, they will sort the images into three groups – angles less than 45 degrees; angles greater than or equal to 45 degrees, but less than or equal to 90 degrees; and angles greater than 90 degrees.
- Then, they will then work together to measure the angles seen in each image to confirm that their grouping is correct and to record an actual angle size on each angle.
- Review use of a standard protractor for measuring angles, including the following:
  - 1) measuring angles that rotate to the right or left of a vertex
  - 2) noticing and measuring multiple angles in a single image, where the angles are of different sizes
- Review sizes of angles, especially the ranges that students will be looking for in the images – angles that are less than 45 degrees; angles that are greater than or equal to 45 degrees, but less than or equal to 90 degrees; and angles that are greater than 90 degrees.

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- Students will find the labels, Protractor Tool, ActivBrowser, ActiView Tool, Question and Answer Tool, Number Pad Tool, and Workpad Tool in their Tool Stores.

## EXTENSION ACTIVITY

- You can restart the activity to load a new set of images.
- Students can also use ActiView or digital cameras to find objects in their environment to add to the activity. They can edit images using the Workpad Tool.

## AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, students work as a team to answer the review questions in the Question and Answer Tool:

- How is an angle formed? (An angle is formed when two line segments meet at the same end point.)
- If you change the length of the line segments, will the measurement of the angle change? (No. If the line segments are not rotated, the angle will stay the same.)
- A right angle measures  $90^\circ$ . How many right angles will make a full circle? (A circle measures  $360^\circ$ . There are four right angles in a circle.)
- You are facing east and turn  $180^\circ$ . Which direction will you face? (You will be facing west.)
- You are facing north and turn  $90^\circ$  counter clockwise. Which direction will you face? (You will be facing west.)

## STUDENT HELP

- Your team is preparing a museum exhibit on Angles in the Real World. You will examine the images and sort them into collections based on angle size.
- First, drag an image to the Workpad Tool, and mark one of the angles in the image.
- Snapshot the image (including the angle you have marked) back into the main activity.
- Work together to estimate the measurement of the marked angle. Use the Number Pad Tool to record your estimate on an "estimate" label. Next, drag the "estimate" label onto the image; it will stick. Then, you will drag the image to the correct box.
- Repeat this procedure for each image.
- After you have made and recorded all your estimates, work together to measure the angles using your Protractor Tools.
- Confirm that the images are sorted into the correct boxes. Write the actual measurement of each angle on an "actual" label and drag it onto the image.
- You can repeat the activity by marking different angles in the images. Alternatively, you can reset the activity to load a different set of images.
- You will find the labels, Protractor Tool, ActivBrowser, ActiView Tool, Question and Answer Tool, Number Pad Tool, and Workpad Tool in your Tool Stores.
- Use the More Help section below to find out more about measuring angles.

## MORE HELP

- If two lines meet (or intersect) at a point, then an angle is formed. The point of intersection of the lines is called the vertex.
- The amount of turn from one arm of the angle to the other is said to be the size of an angle.
- The size of an angle is measured in degrees, and the symbol used to represent degree is  $^\circ$ . There are  $360^\circ$  in a full turn (or circle).
- A protractor is used to measure angles.
- To measure the size of angle, place the protractor over the angle so that the cross hair of the protractor is directly over the angle's vertex and the base line of the protractor is along the arm of the angle.

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# ActivTable Activities Teacher Notes

## CHRISTOPHER COLUMBUS WEBQUEST

SUBJECT AREA:	SOCIAL STUDIES
GRADE RANGE:	GRADES 3, 4, 5
STANDARDS:	NSS-USH.K-4.4 / NSS-USH.5-12.1 / NSS-WH.5-12.6 / 3.RI.1 / 3.RI.5 / 3.RI.7 / 4.RI.1 / 4.RI.3 / 5.RI.7
COGNITIVE LEVELS:	<b>ANALYSIS (ANALYZE):</b> RESEARCH, DISCOVER, EXAMINE, INQUIRE, INTERPRET, CHOOSE <b>SYNTHESIS (CREATE):</b> COMPILE, ORGANIZE, INCORPORATE, BLEND, DESIGN, PUBLISH <b>EVALUATION (EVALUATE):</b> CONSIDER, CONCLUDE, REJECT, SELECT, REVISE, SUPPORT
USERS:	MAX. 6

## OVERVIEW

In this activity, students will conduct a WebQuest on Christopher Columbus. The investigation will focus on Columbus's voyages, and on how he changed history.

Students will:

- collaborate to answer specific questions
- use online resources to find relevant information
- share useful information to help others in the group complete their assignment

This activity can supplement work done with secondary sources (class textbooks, lectures, library research) or replace those materials altogether.

## TEACHER INSTRUCTIONS

### GATHER PRIOR KNOWLEDGE

- What do you already know about Christopher Columbus?
- What myths have you heard about Columbus?
- What other people have made discoveries that changed history?

### INTRODUCE ACTIVITY

- Tell students they will conduct a WebQuest about Christopher Columbus.
- They will record their findings in a presentation.
- To begin, the person closest to the stack of card will distribute the cards between the students.
- Students will overturn their cards to find out what area they will focus their own research on.
- Explain that the coins each link to different research resources when dropped onto the ActivBrowser.
- Students have to work together in order to answer all eight questions.
- Remind students that they all need to fill in the chart in the center of the activity area as well.
- Students will find the ActivBrowser Tool, Keyboard Tool, Workpad Tool, Copier, Presentation Maker Tool, For Teacher button, and three maps in their Tool Stores.

### AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, ask:

- What did you learn about Christopher Columbus that you didn't know before?

# ActivTable Activities Teacher Notes

- How did lives change in the Old World after Columbus's discovery?
- How did lives change in the New World after Europeans landed there?

## ANSWER KEY

Question 1: How many voyages did Columbus make, and in what years did he make them?

*He made four voyages in the years 1492, 1493, 1498, and 1502.*

Question 2: What was the purpose of Columbus's first voyage?

*He wanted to find a new route to the Far East, to India, China, Japan, and the Spice Islands to bring back rich cargoes of silks and spices.*

Question 3: What was the purpose of Columbus's second voyage?

*His purpose was to establish colonies in the name of Spain, to check on his crew left behind at the fort of Navidad, and to find great riches in what he believed to be part of the Far East.*

Question 4: List three foods that originated in the New World and ended up in Europe as a result of the Columbian Exchange.

*These foods included corn, tomatoes, potatoes, peppers, different types of beans, sweet potatoes, chocolates, and peanuts.*

Question 5: What did Europeans bring to the New World that killed many Native Americans?

*They brought communicable diseases, for example, influenza, typhus, chicken pox, measles, smallpox, and yellow fever.*

Question 6: Name one Spanish, one English, and one European explorer from the Age of Exploration. Find one famous woman pirate.

*a) Spanish explorers included Christopher Columbus, Francisco Pizarro, Vasco Nunez de Balboa, Juan Ponce de Leon, Francisco Vasquez de Coronado, Hernando De Soto, and Hernando Cortez, among others.  
<http://www.elizabethan-era.org.uk/the-age-of-exploration>.*

*b) English explorers included Sir Francis Drake, Sir Walter Raleigh, Sir Humphrey Gilbert, Sir Richard Grenville, Sir John Hawkins, Sir Martin Frobisher, Sir Richard Hawkins, John Cabot, Sebastian Cabot, and Henry Hudson.  
<http://www.elizabethan-era.org.uk/the-age-of-exploration>.*

*c) European explorers included Giovanni da Verrazzano, Ferdinand Magellan, Vasco da Gama, Bartholomeu Dias, Pedro Alvares Cabral, Gaspar and Miguel Corte Real, Jacques Cartier, Jacques Marquette, Samuel de Champlain, and Marco Polo.*

*d) Famous woman pirates included Anne Bonny, Mary Read, Lady Killigrew, Grace O'Malley, Mrs. Peter Lambert, Jacquotte Delahaye, Anne Dieu-le-veut, Charlotte de Berry, Mrs. Ching, and Mary Crickett.*

Question 7: What was one of Amerigo Vespucci's major discoveries?

*Vespucci correctly theorized that the lands that Christopher Columbus discovered "were not Asia but a different continent altogether."*

Question 8: Name three major groups of indigenous people that already lived on the Caribbean islands when Columbus arrived.

*They were the Ciboney, the Arawak (also known as the Taino), and the Carib.*

## STUDENT HELP



# ActivTable Activities Teacher Notes

- In this WebQuest, you will research Christopher Columbus and find out how his voyages changed history.
- To begin, distribute the question cards between you.
- Tap each card to reveal your questions.
- The coins each link to different research resources when dropped onto the ActivBrowser. Use these links to answer your questions.
- If you don't have the information you need, ask other students in your group for help. They might have the right information.
- Using the Flipchart Maker Tool, record your findings in a presentation template.
- Remember complete the chart in the center of the activity as you go along.
- You also have some maps to help answer your questions.
- Use the Workpad Tool to change or add information to the charts and maps.
- Use the Copier to create copies of pictures, maps, or other items.
- Students will find the ActivBrowser Tool, Keyboard Tool, Workpad Tool, Copier, Presentation Maker Tool, For Teacher button, and three maps in their Tool Stores.

## EXTENSION ACTIVITY

Ask students to use the interactive whiteboard to share their presentation with the rest of the class.

## CREDITS

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# ActivTable Activities Teacher Notes

## COLLABORATIVE STORYTELLING

SUBJECT AREA:	LANGUAGE ARTS
GRADE RANGE:	GRADES 2, 3, 4, 5
STANDARDS:	L.2.1. / L.2.3. / SL.2.4. / SL.2.5. / SL.2.2. / RL.2.2. / RL.2.3. / RL.2.6. / RL.2.7. / L.3.1. / L.3.3. / SL.3.4. / SL.3.5. / SL.3.2. / RL.3.2. / RL.3.3. / RL.3.6. / RL.3.7. / L.4.1. / L.4.3. / SL.4.4. / SL.4.5. / SL.4.2. / RL.4.2. / RL.4.3. / RL.4.7 / L.5.1. / L.5.3. / SL.5.4. / SL.5.5. / SL.5.2.
COGNITIVE LEVELS:	<b>SYNTHESIS (CREATE):</b> CREATE, COMPOSE, PLAN, DESIGN, IMAGINE, WRITE, DEVELOP, ARRANGE, CHOOSE, REORGANIZE, STRUCTURE, ILLUSTRATE <b>EVALUATION (EVALUATE):</b> ORDER, APPRAISE, SUPPORT, DISCRIMINATE, ASSESS, FIND ERRORS, CRITIQUE
USERS:	4

### OVERVIEW

In this activity, students will use words and pictures to tell a story. They will collaborate on planning, writing, editing, and publishing an original story.

Students will:

- work together to decide on and write down a plan for the story character(s), settings, and plot
- collaborate to write and illustrate an original story
- review and edit each other's work
- publish a complete, illustrated story to a Flipchart

### TEACHER GUIDE

#### GATHER PRIOR KNOWLEDGE

- What is a story? What can stories be about?
- How can you work with a partner to write a story?
- What makes a good writing partner?

#### INTRODUCE ACTIVITY

- Tell students they will use a Story Prompt to plan, write, and illustrate a story. Demonstrate how to they can press the Story Prompt button to get a written prompt.
- If you plan to use the ActiView Tool or a camera to bring in visual story prompts or illustrations, demonstrate how to do this.
- Walk students through the four steps of the activity (Planning, Writing and Illustrating, Revising, and Publishing), and tell them they can review instructions for each step one at a time.
- Explain to students that they will work as a group in Step 1 (Planning), then pair up for Steps 2 and 3 (Writing and Illustrating, and Revising), and then regroup again for Step 4 (Publishing).
- Discuss the use of a thesaurus and dictionary during the entire writing process. Demonstrate how to access and use the tools found at the following Web links:  
<http://www.spellcheck.net/>  
<http://www.wordcentral.com/>
- The ActivBrowser also points to: <http://www.wordsmyth.net/>



# ActivTable Activities Teacher Notes

- Students will find the Keyboard Tool, Content Library Tool, ActivBrowser, Flipchart Maker Tool, Workpad Tool, Copier, Question and Answer Tool, and a Review Checklist in their Tool Stores.

## AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, students work as a team to answer the review questions in the Question and Answer Tool:

- How did your story plan help you to write your story?
- What made it easier to write a story with a partner? What made it harder?
- What did you have to do to be a good writing partner?
- Why do you think it is important to review your work?

## STUDENT HELP

Press the Story Prompt button to get a story starter. Read the prompt aloud. Think about how it might be a part of your story. Once your group agrees on a basic idea, follow the steps below to complete your story.

### Step 1: Planning

- There are four Story-Planning Sheets in the center of the activity area.
- Decide which members of the group will be responsible for each area of story planning.
- Take the Story-Planning Sheet that matches the area you are responsible for and drag it to your Keyboard.
- Work with other students to complete all parts of the story plan.
- When the story-planning parts are completed, move them to the green areas labeled *characters*, *settings*, *plot*, *ending*.

### Step 2: Writing and Illustrating

- With one other student, use the Keyboard Tool to start writing the first paragraph of your story (about 2–4 sentences).
- If you are not one of the students writing, use the Content Library Tool and the Workpad Tool to illustrate the paragraph that the other students are writing.
- When the text and illustrations for the first paragraph are done, position them on the ActivTable so that there is room to extend the story.
- Now switch roles: if you and your partner were illustrating the first paragraph, you will now write the second one; if you were writing, start illustrating.
- Keep taking turns until your story is completed.
- Remember to check the Story Plan you wrote earlier to make sure your story follows the plan.
- If you have any new ideas while writing, discuss them with other students.

### Step 3: Revising

- Find the Review Checklist in your Tool Stores and place it in the activity area.
- With a partner, find on the ActivTable the paragraphs that you did NOT write.
- Work with your partner to review those paragraphs against the Review Checklist and make any changes in spelling, grammar, or wording that you think you need to make.
- Place each corrected paragraph back in position.

### Step 4: Publishing



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- One student has the Flipchart Maker Tool in their Tool Store. If you are that student, open the tool and select a template.
- With other students, place the paragraphs of your story and the illustrations into the template to create the complete story.
- When you are done, remember to read your story again to make sure your paragraphs are in the correct order and all illustrations in their correct place.
- Publish your story by pressing the Make Flipchart button or the Make PDF button.
- You will find the Keyboard Tool, Content Library Tool, ActivBrowser, Flipchart Maker Tool, Workpad Tool, Copier, Question and Answer Tool, and a Review Checklist in your Tool Stores.

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# ActivTable Activities Teacher Notes

## EQUIVALENT EXPRESSIONS

SUBJECT AREA:	MATHEMATICS
GRADE RANGE:	GRADE 5
STANDARDS:	5.OA.1 / 5.OA.2 / 5.NBT.3
COGNITIVE LEVELS:	<b>EVALUATION (EVALUATE):</b> COMPARE, CONSIDER, DISCRIMINATE, ESTIMATE, EVALUATE, SELECT
USERS:	MAX. 6

## OVERVIEW

This activity encourages review and collaborative discussion of mathematical concepts in order to match equivalent expressions.

Students will:

- evaluate numeric expressions and match them with the same numeric expression described in words
- use what they have learned about order of operations, effect of parentheses in numerical expressions, and mathematical properties (associative, commutative, and distributive) to evaluate expressions
- interpret numerical expressions without performing calculations to evaluate them

This activity can be used during a unit on relational thinking and equivalent expressions.

## TEACHER GUIDE

### GATHER PRIOR KNOWLEDGE

- What is a mathematical expression? (Student answers will vary but should note that an expression includes numbers, variables, operation symbols, and grouping symbols but not relation symbols, such as  $<$ ,  $>$ , or  $=$ .)
- What is an example of two expressions that are *equivalent*? (Answers will vary. Guide the discussion to note that *equivalent* does not mean “the same” but rather “the same value.” For example,  $5 * 3$  is equivalent to  $(4 * 5) - 5$ .)
- How can you determine if two expressions are *equivalent*? (Answers will vary. Guide the discussion to note that sometimes you must perform the calculations in order to identify equivalent expressions, but this is not always required.)

### INTRODUCE ACTIVITY

- Tell students that they will be presented with different numeric expressions.
- They will match numeric expressions with the same expression described in words.
- They have tools to help them perform calculations and review terms and properties when necessary.
- Review the mathematical terms *sum*, *difference*, *product*, and *quotient*.
- Review order of operations and effect of parentheses in numeric expressions.
- Students will find the Calculator Tool, Workpad Tool, Question and Answer Tool, Trash Tool, For Teacher button, and Restart button in their Tool Stores.

### AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, students answer review questions in the Question and Answer Tool:

- In an expression with several operations, which operation should you perform first?

# ActivTable Activities Teacher Notes

- Is it important to perform calculations following a left-to-right order in a numeric expression? Give reasons for your answer.
- What makes two expressions equivalent?
- How can I use what I know about associative, commutative, and distributive properties to evaluate whether two expressions are equivalent?

## STUDENT HELP

- You will work with your teammates to make numeric pairs.
- Touch and drag the expressions to move them around the ActivTable.
- Match each expression with an equivalent expression.
- Take turns using the Calculator Tool to check your answers.
- Use the More Help section below to review information about equivalent expressions.
- You will find the Calculator Tool, Workpad Tool, Question and Answer Tool, Trash Tool, For Teacher button, and Restart button in your Tool Stores.

## HELP

- Two expressions are *equivalent* if they are *equal in value*. They can be in a different form.
- Order of operations – rules that tell in what order to perform operations in arithmetic and algebra, as follows:
  - Perform the operations in parentheses first.
  - Calculate all the expressions with exponents next.
  - Multiply and divide in order from left to right.
  - Last, add and subtract in order from left to right.
- Associative Property – applies to addition and multiplication; when you add or multiply three numbers, it does not matter which two you add or multiply first.
- Commutative Property – applies to addition and multiplication; changing the order of the numbers being added or multiplied does not change the answer.
- Distributive Property – applies to multiplication and addition or subtraction;  $a * (b + c) = (a * b) + (a * c)$  and  $a * (b - c) = (a * b) - (a * c)$ .

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# ActivTable Activities Teacher Notes

## FACTOR PAIRS

SUBJECT AREA:	MATHEMATICS
GRADE RANGE:	GRADE 4
STANDARDS:	4.OA.4
USERS:	MAX. 6
COGNITIVE LEVELS:	<b>ANALYSIS (ANALYZE):</b> CLASSIFY, CATEGORIZE, DIFFERENTIATE, CALCULATE

## OVERVIEW

This activity focuses on differentiating prime and composite numbers and, for those numbers that are composite, identifying factor pairs:

Students will:

- determine whether a number is prime or composite
- identify all factor pairs for composite numbers between 4 and 100

This activity can be used during a unit on prime and composite numbers. It can also be used in a unit on evenly divisible numbers.

## TEACHER GUIDE

### GATHER PRIOR KNOWLEDGE

- Review the difference between a prime number and a composite number.
- Remind students that a prime number has only two factors, the number itself and 1.
- Tell students that 7 is a prime number. Challenge them to find more than one pair of factors. (prime numbers have only one pair of factors)
- Ask students to think of factor pairs for the number 8. List them on the whiteboard. (1, 8; 2, 4)
- Remind students that composite numbers always have more than one factor pair.

### INTRODUCE ACTIVITY

- Tell students that they will identify prime and composite numbers.
- Provide a definition and examples of prime numbers.
- Provide a definition and examples of composite numbers.
- Students will take turns flipping a card in the Lazy River.
- The card will reveal a number between 1 and 100.
- For each number, students must determine whether it is prime or composite.
- They should drag the card out of the Lazy River and use the Calculator Tool to record all of the factor pairs on the card.
- If the number a prime number, they will drag the card to the “prime” basket.
- After they have gone through all the cards, students can use the Results Checker to compare their cards to the answers and confirm that each card is in the correct basket.
- Students will find the Results Checker, Calculator Tool, Workpad Tool, Question and Answer Tool and Restart button in their Tool Stores.

### AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, students work as a team to answer the review questions in the Question and Answer Tool:

- Think of three prime numbers greater than 100. List them.
- Think of two composite numbers greater than 100. List all the factor pairs for the numbers.

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- Most even numbers are composite numbers. However, one even number (less than 100) is a prime number. What is the number?
- There is one number between 1 and 100 that all numbers, both prime and composite, are divisible by. What is the number?
- Which number between 2 and 100 has the most factor pairs?
- What is the first prime number greater than 100?

## STUDENT HELP

- Take turns flipping a card in the Lazy River.
- Each card will reveal a number between 1 and 100.
- Together you will decide if the number is prime or composite.
- Work with your teammates to think of all the factor pairs for the number. Use the Calculator Tool to add the factor pairs to the card.
- Then, if the number is a prime number, drag the card to the “prime” basket.
- If it is a composite number, drag the card to the “composite” basket.
- After you have used all the cards, use the Results Checker to check your work and make sure all the cards are in the correct basket.
- After you have played the game, use the Calculator Tool to answer the questions in the Question and Answer Tool.
- Your teacher will mark your work.
- You will find the Results Checker, Calculator Tool, Workpad Tool, Question and Answer Tool and Restart button in your Tool Stores.

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# ActivTable Activities Teacher Notes

## HEROES OF SCIENCE AND INVENTION

SUBJECT AREA:	SCIENCE
GRADE RANGE:	GRADE 3, 4, 5
STANDARDS:	RI.3.1 / RI.3.5 / RI.3.7 / RI.3.10 / RI.4.3 / RI.4.7 / RI.4.10 / RI.5.7 / RI.5.9 / RI.5.10 / NS.K-4.4 / NS.K-4.5 / NS.K-4.7 / NS.5-8.5 / NS.5-8.7
COGNITIVE LEVELS:	<b>ANALYSIS (ANALYZE):</b> RESEARCH, DISCOVER, EXAMINE, INQUIRE, INTERPRET, CHOOSE <b>SYNTHESIS (CREATE):</b> COMPILE, ORGANIZE, BLEND <b>EVALUATION (EVALUATE):</b> APPRAISE, CONSIDER, SUMMARIZE, CONCLUDE, REJECT, SELECT, SUPPORT
USERS:	MAX. 6

## OVERVIEW

This activity provides students practice in the research skills necessary to gather information about science inventors.

Students will:

- read a timeline
- use the internet to gather information about an inventor
- complete an Information Sheet about an inventor

This activity can be used during a social studies or science unit on scientists, inventors, or inventions.

## TEACHER GUIDE

### GATHER PRIOR KNOWLEDGE

- Can you define what invention means?
- Name a science invention, and tell why it is important.
- What information is important to know about an inventor?
- What do you know about inventors?
- Where could you find information about an inventor?

### INTRODUCE ACTIVITY

- Tell students that in this activity they will research information about an inventor.
  - The Picture Frame contains 12 images of famous inventors.
  - The Birth Dates widget contains the birth dates of the 12 inventors.
- Students will create a timeline and match each image to a birth date using the blank Information Sheets provided.
- They can drop the images and dates on to the ActivBrowser to view relevant web pages. Each link leads to a different research resource, so there are two research links for each inventor.
- Students will add interesting information and images to the Information Sheets as they research each inventor.
- If one student finds information about an inventor that another student is researching, they should share what they have found.
- Tell students that they will continue to work as a team until they have researched all the inventors.

# ActivTable Activities Teacher Notes

- If there is time at the end of the task, students could research and add other significant inventors to the timeline.
- Students will find the Timeline Tool, ActivBrowser Tool, Keyboard Tool, Workpad Tool, Question and Answer Tool, and Information Sheet in their Tool Stores.

## AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, students answer review questions in the Question and Answer Tool:

- Do you think any of the earlier inventors influenced any of the inventors that lived later? Describe this influence.
- What would you like to invent? What kind of science would you need to study?
- Compare two inventors. Are they similar in any way? What makes them different?
- Think about a recent invention that may not have been possible without the work of an inventor on your timeline. Explain.

## STUDENT HELP

- Use the Timeline Tool to create a timeline.
- You will then research and compile information on 12 famous inventors.
- You have 12 images and 12 birth dates, which each correspond to an inventor.
- Choose an inventor to research.
- Drag the images and birth dates onto the ActivBrowser to follow your research links. Look for information about your inventor.
- Record your findings on an Information Sheet, which you will place in the correct position on the timeline.
- Make a note of anything you think is important or interesting about your inventor and their invention or discovery.
- Add pictures as you find them while researching each inventor.
- If you discover important information about an inventor that another student is researching, share what you have found.
- You will find the Timeline Tool, ActivBrowser Tool, Keyboard Tool, Workpad Tool, Question and Answer Tool, and Research Sheet in your Tool Stores.

## CREDITS

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# ActivTable Activities Teacher Notes

## LET'S GO SHOPPING

SUBJECT AREA:	MATHEMATICS
GRADE RANGE:	GRADE 2
STANDARDS:	2. MD 8
COGNITIVE LEVELS:	<b>APPLICATION (APPLY):</b> USE, CALCULATE, PRACTICE, DETERMINE, SIMULATE
USERS:	6

## OVERVIEW

This activity encourages role-play and collaboration to model the use of money in a store setting.

Students will:

- recognize common denominations of money
- compare amounts of money to determine which items cost more, or less
- make combinations of money that add up to a given total
- count on to determine correct change
- use subtraction to determine correct change
- determine the total amount of money earned
- determine the total amount of money spent

This activity can be used during a unit on money. This activity may also be used to practice social interactions in real-world situations involving money.

## TEACHER GUIDE

### GATHER PRIOR KNOWLEDGE

- Have you ever gone shopping? What did you buy? (student experiences and items purchased will vary)
- What happens when you buy something at a store? (you pay money for something you need or want)
- How do you know how much something costs? (price label, ask the storekeeper, etc.)
- What happens if you don't have the exact amount of money? (you may need to give more money or you may get change back, etc)

### INTRODUCE ACTIVITY

- Tell students that in this activity they will be a storekeeper. They will each have a store filled with items for sale. They will sell items to the other storekeepers.
- Explain that each storekeeper also has a shopping list. They will use the money in their cash register to buy items from other storekeepers.
- Review the money values to be used in the activity. Model counting the money.
- Model a simple transaction with a student volunteer.
- Students will find the Question and Answer Tool, Keyboard Tool, Calculator Tool and Workpad Tool in their Tool Stores.

### AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, students work as a team to answer the review questions in the Question and Answer Tool:



# ActivTable Activities Teacher Notes

- Whose store made the most money?
- Whose store made least money?
- Which shopper spent the most money?
- Which shopper spent the least money?
- Which items cost the most?
- Which items cost the least?

## STUDENT HELP

- You have a store with items to sell. Tap the items to find out their sale price.
- You have a list of things to buy from the other storekeepers.
- You have a cash register containing money. Tap the bills and coins to find out their value.
- Select an item from your list. Decide which store you need to visit to buy the item.
- Ask the storekeeper to tell you the price of the item you want to buy.
- Use your money to buy the item from the storekeeper.
- When you pay, try to give the correct amount of money. If you give an amount greater than the price of the item, be sure to count the change the storekeeper gives you. Put any change in your cash register.
- Put items you buy in your basket.
- If you buy an item from your list, you must then sell an item from your store.
- When you sell an item, make sure the shopper gives you the correct amount of change and if they give you an amount greater than the price, count back the correct amount of change. Put any money you make in your cash register.
- Work through your list and buy the remaining items on your list from the other storekeepers.
- You will find the Question and Answer Tool, Keyboard Tool, Calculator Tool and Workpad Tool in your Tool Stores.

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# ActivTable Activities Teacher Notes

## LONG VOWEL CONCENTRATION

SUBJECT AREA:	LANGUAGE ARTS
GRADE RANGE:	GRADES K, 1, 2
STANDARDS:	RF.K.3/ RF.1.2 / RF.1.3 / RF.2.3
COGNITIVE LEVELS:	<b>KNOWLEDGE (REMEMBER):</b> RECOGNIZE, MATCH <b>COMPREHENSION (UNDERSTAND):</b> COMPARE, DIFFERENTIATE, GIVE EXAMPLES
USERS:	MAX. 6

## OVERVIEW

This activity focuses on recognizing and naming long vowel sounds in one-syllable words.

Students will:

- recognize and name long vowel sounds using sight and sound cues
- match long vowel sounds using sight and sound cues
- recognize long vowel sounds in one-syllable words with common vowel teams
- work as a team to help classmates recognize, think of, and spell one-syllable words with long-vowel sounds

## TEACHER GUIDE

### GATHER PRIOR KNOWLEDGE

- What is the difference between a vowel and a consonant?
- How many vowels are there? Name them.
- Do you know the difference between short and long vowels?
- Make the sound for each long vowel sound.

### INTRODUCE ACTIVITY

- Students have 24 cards. They will be working against the clock.
- The goal of the activity is to find all the matching pairs before the time runs out.
- A matching pair shows two words containing the same long vowel sound, for example, *pile* and *sire*.
- Players should press Start on the Timer and take turns flipping two cards at a time.
- If students find a matching pair, they should drag both cards to the Lazy River. Remind players that they can press the Sound button on each card to check and compare the long vowel sounds.
- If students don't find a matching pair, they should flip both cards back over.
- The game continues in this way, with players taking turns choosing two cards each.
- Because students are working as a team, they should help one another remember what words and vowel sounds are on the back of different cards.
- The game is over when the buzzer sounds or when students have found all 12 matches.
- Students can restart the game to play again. Adjust the timer to add or subtract from the 3-minute time allowance.
- Review long vowel sounds as necessary.
- Students will find the Question and Answer Tool, Keyboard Tool and Restart button in their Tool Stores.

# ActivTable Activities Teacher Notes

## AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, students work as a team to answer the review questions in the Question and Answer Tool:

- Which vowel sounds did the activity focus on?
- With your classmates, name two words with the long-a vowel sound that were not used in the activity today. Can you spell them?
- With your classmates, name two words with the long-e vowel sound that were not used in the activity today. Can you spell them?
- With your classmates, name two words with the long-i vowel sound that were not used in the activity today. Can you spell them?
- With your classmates, name two words with the long-o vowel sound that were not used in the activity today. Can you spell them?
- With your classmates, name two words with the long-u vowel sound that were not used in the activity today. Can you spell them?
- Did any of the words used in the activity rhyme?

## STUDENT HELP

- Work with your teammates to find pairs of matching vowel sounds before the time runs out.
- Press the Start button on the Timer when you are ready to begin.
- Then, take turns flipping two cards at a time.
- Tap the Sound button next to each word to hear it read aloud.
- Decide with your classmates which vowel sound you hear.
- If both long vowel sounds are the same, you have found a matching pair.
- Drag matching pairs to the Lazy River.
- If both long vowel sounds are not the same, flip the cards back over.
- The next student should repeat these steps trying to find a match.
- You are playing as a team so help one another remember what words and vowel sounds are on the back of the different cards. This will help you to find matches more quickly.
- The game is over when you have found all 12 matches.
- If you run out of time, the buzzer will sound and the game is over.
- To play again, tap the Restart button.
- Adjust the time allowance if you would like more or less time to complete the game.
- After you have played the game, use the Keyboard Tool to answer the questions in the Question and Answer Tool.
- You will find the Question and Answer Tool, Keyboard Tool and Restart button in your Tool Stores.

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# ActivTable Activities Teacher Notes

## MAKING COMPOUND WORDS

SUBJECT AREA:	LANGUAGE ARTS
GRADE RANGE:	GRADE 2
STANDARDS:	L.2.4
COGNITIVE LEVELS:	<b>APPLICATION (APPLY):</b> CHOOSE, CONSTRUCT, USE <b>SYNTHESIS (CREATE):</b> GENERATE, ASSEMBLE, COMBINE, INVENT
USERS:	MAX. 6

## OVERVIEW

This activity encourages students to combine simple words into compound words and recognize their meanings.

Students will:

- read simple root words
- combine two root words to form a compound word
- use the compound word in a sentence

This activity can be used during a unit on root words and their meanings. It also can also be used to practice deciphering and using compound words.

## TEACHER GUIDE

### GATHER PRIOR KNOWLEDGE

- Can you think of compound words using the root word *book*? (bookcase, bookshelf, notebook, bookmark)
- Can you think of compound words using the root word *house*? (birdhouse, lighthouse, housefly)
- What do you notice about *bookshelf* and *notebook*? (The root word *book* can be either first or second.)

### INTRODUCE ACTIVITY

- Tell students that they will work together to put root words together and create compound words.
- They can press the Sound button on each a root word card to hear the word pronounced.
- Explain to students that they will start by dragging a Compound Words Notepad from the Lazy River into the activity area.
- Then they will drag two root word cards from the Lazy River into the space provided on the Compound Word Notepad to make a compound word.
- Next, they will provide a definition for the compound word.
- Then, they will then write a sentence using the compound word.
- Students can use the ActivBrowser, which directs to [thefreedictionary.com](http://thefreedictionary.com), to look up definitions and check for legitimate words.
- Students must try to make as many compound words as they can use the root words supplied. There are at least 65 potential compound word combinations.
- Completed compound words should be stored in the Compound Words area of the activity.
- Students will find the Keyboard Tool, ActivBrowser Tool, Content Library Tool, Question and Answer Tool, For Teacher button, and an Inspiration List in their Tool Stores.

Compound Words: *downstairs, downhill, sundown, upstairs, uphill, backup, standup, backfire, backlight, paperback, background, backhand, backroom, fireball, firelight, firework, firehouse, bedroom, flowerbed, bedtime, newsroom, sunroom, handstand, handball, handprint, underhand, headstand, newsstand, understand, newspaper, newsprint, paperwork, snowball, football, footprint, footlight,*



# ActivTable Activities Teacher Notes

*daybed, dayroom, daylight, daytime, Sunday, sunlight, sunflower, underground, groundwork, headlight, headroom, lighthouse, headline, underline, timeline, lineup, housework, footwork, workday, backwater, waterfall, waterbed, waterside, underwater, groundwater, snowfall, downfall, upside, downside, underside, sideline.*

## AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, students work as a team to answer the review questions in the Question and Answer Tool:

- Choose one compound word. Think of other compound words that use one of the root words.
- The root word *book* is first in *bookmark*. It is second in *notebook*. Think of other compound words that have the same root word in different places.
- Use the root words on the ActivTable to create three “nonsense” words. Come up with a definition for each nonsense word. For example, you could join the root words *bed* and *day* to make the nonsense word *bedday*: a day of the week where you don’t get out of bed.

## STUDENT HELP

- Work with your classmates to create compound words out of the root words shown.
- Press the Sound button on a root word card to hear the word pronounced.
- First, drag a Compound Word Sheet from the Lazy River into the main activity area.
- Then, drag two root word cards onto the Compound Words Notepad, joining them to make a compound word.
- In the spaces provided, use the Keyboard Tool to write the compound word in full, write a definition for your compound word, and write a sentence using the compound word.
- You can use the Web Browser to look up definitions and confirm that your compound words are real words.
- Try to make as many words as you can. There are over 65 words to find!
- You will find the Keyboard Tool, Web Browser Tool, Content Library Tool, Question and Answer Tool, For Teacher Tool, and an Inspiration List in your Tool Stores.

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# ActivTable Activities Teacher Notes

## MAKING CVC WORDS

SUBJECT AREA:	LANGUAGE ARTS
GRADE RANGE:	GRADES K, 1
STANDARDS:	RF.K.2 / RF.K.3 / RF.1.2 / RF.1.3
COGNITIVE LEVELS:	<b>COMPREHENSION (UNDERSTAND):</b> COMPARE, DISINGUISH, REPRESENT <b>APPLICATION (APPLY):</b> CHOOSE, USE, CONSTRUCT
USERS:	MAX. 6

## OVERVIEW

This activity focuses on forming, sounding out, and recognizing consonant-vowel-consonant words.

Students will:

- recognize consonant and vowel-consonant sounds
- form consonant-vowel-consonant (CVC) words
- match CVC words to corresponding images using sight and sound cues
- work as a team to help classmates recognize, think of, and spell CVC words

## TEACHER GUIDE

### GATHER PRIOR KNOWLEDGE

- What is the difference between a vowel and a consonant?
- Can you name any consonants? What sound does each make?
- How many vowels are there? Name them.
- What are the short vowel sounds?
- Write the word *hot* on the board. Ask students to explain why it is a CVC word.

### INTRODUCE ACTIVITY

- Tell students that they will work with 20 consonant cards and 20 vowel-consonant cards to form 20 CVC words.
- Each CVC word will correspond to a picture in the Lazy River.
- Explain to students that they will begin by choosing a picture and dragging it to the blank space on the one of the Word Cards.
- They should press the Sound button in the picture to hear the word for the picture; they will need to decide what letter the word starts with.
- Students should find the correct starting consonant and drag it to the Consonant Box (C) on the Word Card.
- If they need to hear the sound the letter makes, they can press the Sound button on the Consonant Card.
- Next, students should find the correct Vowel-Consonant Card and drag it to the Vowel Consonant Box (V) on the Word Card.
- Students can sound out the word and press each Sound button again to confirm that the word matches the picture. If it matches, students should drag the Word Card to the Basket. If it doesn't, students should try again or put the Word Card to one side to try again later.
- Tell students to continue making words until there are no pictures left.
- Explain that when they run out of pictures, students should pair up. Together they will come up with as many new CVC words as possible.
- Each pair should drag a blank Word Card to their own area of the ActivTable.
- One student can use the Keyboard Tool to write their new CVC word.



# ActivTable Activities Teacher Notes

- The other student will be responsible for illustrating the word using either the Content Library or their Workpad Tool.
- After each new word, the students in each pair should swap roles so that the writer becomes the illustrator and vice versa.
- Students should communicate with the group throughout the process to prevent different pairs of students duplicating the same word.
- Students will find the Keyboard Tool, Content Library Tool, Workpad, and Question and Answer Tool in their Tool Stores.

## AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, students answer review questions in the Question and Answer Tool:

- Name two consonant-vowel-consonant words with -ag at the end that were not used in the activity.
- Name two consonant-vowel-consonant words with -ug the end that were not used in the activity.
- Name two consonant-vowel-consonant words with -ed at the end that were not used in the activity.
- Name two consonant-vowel-consonant words with -at the end that were not used in the activity.
- Name two consonant-vowel-consonant words with -ar at the end that were not used in the activity.
- Name two consonant-vowel-consonant words with -un at the end that were not used in the activity.

## STUDENT HELP

- You will work with your classmates to form consonant-vowel-consonant (CVC) words.
- To begin, notice the images moving around the Lazy River. You will form a word to match each of these images.
- Choose a picture and drag it to the blank space in a Word Card in the center of the ActivTable. To hear the word for the picture, press the Sound button on the picture.
- Decide what letter the word begins with.
- Choose the correct starting consonant and drag it to the Consonant Box (C) on the Word Card. To hear the sound the consonant makes, press the Sound button next to the consonant.
- Next, choose a Vowel-Consonant Card (V) and drag it to the Vowel-Consonant Box on the Word Card. If you want to hear the sound of the vowel-consonant pair, press the Sound button on the card.
- Say the word you formed aloud, and play the sounds again to check the word matches the picture. If it matches, drag the Word Card to the Basket.
- If your word does not match the image, try again, or move the Word Card to one side to attempt later.
- Continue in this way until you and your classmates used all of the pictures and formed all 20 words.
- Next, working in pairs, you should form as many new CVC words as you can.
- Each pair should drag a blank Word Card to their own area of the ActivTable.
- One student in the pair can use the Keyboard Tool to write the new CVC word on the Word Card.
- The other student can use the Content Library or the WordPad Tool to make a picture for the word and then add it to the blank space on the Word Card.
- You will find the Keyboard Tool, Content Library Tool, WorkPad, and Question and Answer Tool in your Tool Stores.

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# ActivTable Activities Teacher Notes

## MATH MONSTERS 2

SUBJECT AREA:	MATHEMATICS
GRADE RANGE:	GRADE 2
STANDARDS:	2.NBT.8 / 2.NBT.5 / 2.NBT.6 / 2.OA.2
COGNITIVE LEVELS:	<b>APPLICATION (APPLY):</b> SOLVE, CALCULATE
USERS:	MAX. 6

### OVERVIEW

This activity focuses on solving mathematical equations where the unknown quantity appears in various positions in the equation. The addition and subtraction equations challenge students to use what they know about grouping numbers, extending basic facts, and using place value to solve for the unknown.

Students will:

- solve for an unknown when one part and the whole are known, using addition or subtraction (For example,  $15 + \underline{\quad} = 25$ )
- solve for an unknown whole when two parts are known, using addition or subtraction (for example,  $17 - 5 = \underline{\quad}$ )
- solve for unknowns using strategies such as grouping place values, making a ten, extending basic facts, and using the Commutative and Distributive Properties to solve equations

### TEACHER GUIDE

#### GATHER PRIOR KNOWLEDGE

- Review the “unknown” quantity as represented by a
- Review strategies for solving equations when the unknown appears in different positions, including  $12 + 7 = \underline{\quad}$ ;  $12 + \underline{\quad} = 5$ ;  $\underline{\quad} - 7 = 5$ .
- Review strategies for adding 3 or more addends, grouping addends to make a 10, and adding or subtracting using a place-value strategy. For example,  $75 - 21$  can be solved as  $(70 - 20) + (5 - 1)$ .

#### INTRODUCE ACTIVITY

- Tell students they will help gather snacks for a group of friendly monsters.
- Explain that each friendly monster has a favorite number, which is displayed on its stomach.
- Students will flip snacks on the ActivTable and look for equations that match their monster’s favorite number.
- If they uncover an equation where the  matches the number on their monster’s stomach, students should collect that snack and place it on their monster’s tray.
- If they uncover an equation that doesn’t match the number on their monster’s stomach, they should flip the snack back over.
- Students should continue looking for equations until they have matched each monster with three snacks/equations.
- At the end of the game, ask students to be sure all their equations match their monster’s favorite number.
- Review strategies for solving equations as necessary.
- Students will find the Calculator Tool, Question and Answer Tool, For Teacher button, and Restart button in their Tool Stores.

#### AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

# ActivTable Activities Teacher Notes

After the activity, students answer review questions in the Question and Answer Tool:

- How did I use what I know about tens and ones to solve addition and subtraction problems?
- How was I able to figure out the unknown “part” in an equation when one part and the whole are known?
- How was I able to group digits so that I could add or subtract more easily?

## STUDENT HELP

- You will help gather snacks for the group of friendly monsters. Choose a monster each.
- Each friendly monster has a favorite number. You can see your monster’s favorite number on its stomach.
- When the game starts, you will overturn snacks on the ActivTable and look for math problems where the blank equals your monster’s favorite number.
- If you uncover a problem that matches your monster’s favorite number, collect that snack and place it on your monster’s tray.
- If you uncover a problem that doesn’t equal your monster’s favorite number, flip the snack back over.
- Continue looking until you’ve matched each monster with three snacks.
- At the end of the game, check that all of your problems match your monster’s favorite number.
- If any of the snacks are matched to the wrong monster, trade with another monster until all of the snacks are on the correct tray.
- You will find the Calculator Tool, Question and Answer Tool, For Teacher button, and Restart button in your Tool Stores.

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# ActivTable Activities Teacher Notes

## MATH MONSTERS 4

SUBJECT AREA:	MATHEMATICS
GRADE RANGE:	GRADE 4
STANDARDS:	4.NBT.4 / 4.NBT.5 / 4.NBT.6
COGNITIVE LEVELS:	<b>APPLICATION (APPLY):</b> SOLVE, CALCULATE
USERS:	MAX. 6

## OVERVIEW

This activity focuses on solving mathematical equations where the unknown quantity appears in various positions in the equation. The equations challenge students to use what they know about grouping numbers, extending basic facts, and using place value to solve for the unknown.

Students will:

- solve for an unknown when one part and the whole are known, using addition or subtraction (For example,  $15 + \underline{\quad} = 25$ )
- solve for an unknown whole when two parts are known, using addition or subtraction (for example,  $17 - 5 = \underline{\quad}$ )
- solve for unknowns using strategies such as grouping place values, making a ten, extending basic facts, and using the Commutative and Distributive Properties to solve equations

## TEACHER GUIDE

### GATHER PRIOR KNOWLEDGE

- Review the “unknown” quantity as represented by a
- Review strategies for solving equations when the unknown appears in different positions, including  $12 + 7 = \underline{\quad}$ ;  $12 + \underline{\quad} = 5$ ;  $\underline{\quad} - 7 = 5$ .
- Review strategies for adding 3 or more addends, grouping addends to make a 10, and adding or subtracting using a place-value strategy. For example,  $75 - 21$  can be solved as  $(70 - 20) + (5 - 1)$ .
- Review square numbers (for example,  $5^2$ ), and orders of operations. For example, review  $(60 * 10) + (3 * 5) = \underline{\quad}$  as well as using extended basic multiplication facts ( $5 * 6$  related to  $5 * 60$ ).

### INTRODUCE ACTIVITY

- Tell students they will help gather snacks for a group of friendly monsters.
- Explain that each friendly monster has a favorite number, which is displayed on its stomach.
- Students will flip snacks on the ActivTable and look for equations that match their monster’s favorite number.
- If they uncover an equation where the  matches the number on their monster’s stomach, students should collect that snack and place it on their monster’s tray.
- If they uncover an equation that doesn’t match the number on their monster’s stomach, they should flip the snack back over.
- Students should continue looking for equations until they have matched each monster with three snacks/equations.
- At the end of the game, ask students to be sure all their equations match their monster’s favorite number.
- Review strategies for solving equations as necessary.
- Students will find the Calculator Tool, Question and Answer Tool, For Teacher button, and Restart button in their Tool Stores.

# ActivTable Activities Teacher Notes

## AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, students answer review questions in the Question and Answer Tool:

- How was I able to extend what I know about basic multiplication facts to help me solve problems with larger numbers?
- How was I able to group digits to add, subtract, or multiply numbers more easily?
- How did knowing the Commutative Property of Multiplication help me to solve problems?
- How did knowing the Distributive Property help me to solve problems?

## STUDENT HELP

- You will help gather snacks for the group of friendly monsters. Choose a monster each.
- Each friendly monster has a favorite number. You can see your monster's favorite number on its stomach.
- When the game starts, you will overturn snacks on the ActivTable and look for math problems where the blank equals your monster's favorite number.
- If you uncover a problem that matches your monster's favorite number, collect that snack and place it on your monster's tray.
- If you uncover a problem that doesn't equal your monster's favorite number, flip the snack back over.
- Continue looking until you've matched each monster with three snacks.
- At the end of the game, check that all of your problems match your monster's favorite number.
- If any of the snacks are matched to the wrong monster, trade with another monster until all of the snacks are on the correct tray.
- You will find the Calculator Tool, Question and Answer Tool, For Teacher button, and Restart button in your Tool Stores.

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# ActivTable Activities Teacher Notes

## OPPOSITES BINGO

SUBJECT AREA:	LANGUAGE ARTS
GRADE RANGE:	GRADES 4, 5
STANDARDS:	L.4.5.C / L.5.5.C
COGNITIVE LEVELS:	<b>KNOWLEDGE (REMEMBER):</b> RECOGNIZE, IDENTIFY, SELECT
USERS:	MAX. 6

## OVERVIEW

This activity focuses on word meanings and on antonyms of vocabulary words. Students will also work on recognizing synonyms as well as using antonyms and synonyms correctly in sentences.

Students will:

- know meanings of vocabulary words
- recognize antonyms of vocabulary words
- demonstrate knowledge of synonyms
- identify synonyms of vocabulary words

This activity can be used during a unit on vocabulary, antonyms, and synonyms.

## TEACHER INSTRUCTIONS

### GATHER PRIOR KNOWLEDGE

- Have you ever played bingo? Can you explain how the game is played?
- What is an antonym? Provide two words to explain what you mean.
- What is a synonym? Provide two words to explain what you mean.

### INTRODUCE ACTIVITY

- Tell students that in this activity they will play a bingo-like game.
- Explain that each student will match, one by one, words and their antonyms.
- Each student has a Bingo Card. The goal is to flip the smaller cards and uncover the antonym for every word on their Bingo Cards.
- Review the definition of “antonym” and “synonym” as necessary.
- Review definitions of vocabulary words as necessary.
- Students will find the Answer Key, Workpad Tool, Question and Answer Tool, and For Teacher button, in their Tool Stores.

### AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, students work as a team to answer the review questions in the Question and Answer Tool:

- Where in day-to-day life might you need to use synonyms or antonyms?
- Did you choose a card that had a word on it that you did not know? If so, how were you able to figure out its definition?
- If you know a synonym for a word, how might that help you to think of an antonym?



# ActivTable Activities Teacher Notes

- Choose any word from your Bingo Card, and use it in a sentence. Say your sentence aloud. Now replace the word you chose with an antonym. Does your sentence make sense?
- Choose any word from your Bingo Card, and try to think of a second antonym for that word.
- Write two sentences on the Workpad about anything you want. Then, ask another student to read your sentences and to replace any word in each sentence with an antonym.

## STUDENT HELP

- Everybody has a Bingo Card.
- Take turns flipping cards from the pile of small cards; each card will reveal a word.
- Check your Bingo Card for a word that means the opposite of the word on the smaller card, in other words, its antonym.
- If you find an antonym on your Bingo Card, long-press the word; this will highlight the antonym.
- Once everyone has checked for and, if possible, marked the antonym, drag the smaller card to the Discard Pile.
- Continue playing in this way until one player highlights all the words on his or her card.
- The first player to highlight an entire card should call out “bingo!”.
- Use the cards in the Discard Pile along with the Answer Key to check that all the highlighted words on the winning Bingo Card are correct. You can drag cards from the Discard Pile next to your bingo card to check your answers; then you can drag the cards to the Trash.
- Continue until you confirm all the words on the winning Bingo Card.
- If there is a mistake on the winning Bingo Card, the owner of the card should sit out for the rest of the round while the remaining players continue the game.
- You will find the Answer Key, Workpad Tool, Question and Answer Tool, and For Teacher button, in your Tool Stores.

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# ActivTable Activities Teacher Notes

## PENTOMINO PARKING

SUBJECT AREA:	MATHEMATICS
GRADE RANGE:	GRADE 3, 4
STANDARDS:	3.MD.5, 3.MD.7, 3.MD.8, 4.MD.3
COGNITIVE LEVELS:	<b>APPLICATION (APPLY):</b> SOLVE, APPLY, CALCULATE, SELECT, MANIPULATE <b>EVALUATION (EVALUATE):</b> MEASURE, ESTIMATE, PREDICT, TEST
USERS:	MAX. 6

## OVERVIEW

This activity encourages role-play and collaboration to solve pentomino puzzles in a town setting.

Students will:

- use pentominoes to explore geometric concepts
- develop spatial skills
- develop game playing strategies
- solve puzzles by working in a systematic and collaborative way
- recognize the congruence of shapes in different orientations
- measure and calculate perimeter of simple shapes
- use multiplication to calculate the area of a shape
- identify shapes with the same area but different perimeter measurements
- identify lines of symmetry in simple shapes
- recognize shapes with no lines of symmetry

This activity can be used during a unit on translation, rotation, reflection, or congruence; or a unit on area and perimeter. This activity encourages speaking and listening skills as students exchange information and ideas; it also encourages critical thinking skills as students negotiate to develop problem-solving strategies.

## TEACHER GUIDE

### GATHER PRIOR KNOWLEDGE

- Have you ever played a game called Tetris? Can you explain how the game works? (Student responses will vary.)
- Demonstrate your knowledge of reflection, translation, and rotation (flip, slide, and turn) using real objects.
- Identify or categorize examples of shapes that are pentominoes, and shapes that are not. Explain your reasoning. (Each square must share at least one complete side with another, and has sides which do not overlap)

### OPTIONAL STARTER

- Explain that a pentomino is a shape made up of five congruent squares, or unit-squares. There are twelve pentomino shapes and each is named after a letter of the alphabet.
- Provide pairs of students with scissors and square grid paper.
- Ask the pairs to find and make as many pentominoes as possible; first they should estimate how many there are to find.
- Explain that students need to double check every new pentomino to make sure it isn't a rotation or reflection of another pentomino.

# ActivTable Activities Teacher Notes

- After they complete the task, ask students to discuss the methods they used. How they can prove they have not missed any shapes?

## INTRODUCE ACTIVITY

- Tell students that they will be part of a team responsible for planning and building new parking lots to improve parking in the town.
- They will work together to tile each of the parking lots with pentomino pieces.
- Tell students that they can reflect, translate, and rotate the pentominoes to make them fit, but they can only use each pentomino piece once in each task.
- Each student has different pentomino pieces so they must work together to complete the five tasks. The tasks will become progressively more difficult as the task goes on; each task will have fewer solutions than the last.
- They can use the Hint Sheet stored along the edge of the ActivTable to compare all of the different shapes.
- Tell students to start at the Sports Field where the site manager will give them their first job.
- They will follow his instructions and use their pentominoes to complete the task.
- At the end of each task, students will be directed to a different site in the town to receive their next set of instructions.
- When they finally get to the Park, they will play against each other in a game. The objective of the game is to be the last person to place a pentomino piece on the grid.
- During the game, they will drag the pentominoes from the Hint Sheet because they may need to access all 12 pentomino shapes, rather than the limited sets in their Tool Stores.
- Tell students that they can use the ActivBrowser to check the solutions for each puzzle.
- Review concepts of area and perimeter as necessary.
- Students will find the Number Pad Tool, Question and Answer Tool, For Teacher button, and Restart button in their Tool Stores.

## AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, students answer review questions in the Question and Answer Tool:

- Do all of the pentominoes have the same perimeter? If not, why not?
- Why does the P shaped pentomino have a smaller perimeter than the other pieces?
- Name a pentomino with reflective symmetry.
- Name a pentomino with rotational symmetry.
- Name a pentomino with no lines of symmetry.
- Combining two pentominoes, what is the largest perimeter you can create?
- Combining two pentominoes, what is the smallest perimeter you can create?

## STUDENT HELP

- You will be part of a team responsible for planning and building new parking lots to improve parking in the town.
- The area where you will build each parking lot has been marked.
- You will work together to tile each of the parking lots with your pentomino pieces.
- You can reflect, translate and rotate (flip, slide, and turn) the pieces to make them fit, but you can only use each pentomino piece once in each task.
- You all have different pentomino pieces so you must work together.
- You can use the Hint Sheet stored along the edge of the ActivTable to compare all of the different shapes. Notice that each pentomino piece is named after a different letter.
- To begin, head to the Sports Field where the site manager will give you your first job.
- Follow his instructions and use your pentominoes to complete the task.



# ActivTable Activities Teacher Notes

- At the end of each task, you will be directed to a different site in the town to receive your next set of instructions. You will visit the Police Station, School, Store, Fire Station, and then finally the Park.
- When you get to the Park, you will play against each other in a game. The objective of the game is to be the last person to place a pentomino piece on the grid.
- During the game, drag the pentominoes from the Hint Sheet so you have access to all 12 pentomino shapes.
- Launch the ActivBrowser to check the solutions for each puzzle.
- Tip: It may be easier to position the pentominoes if you temporarily lock the activity background.
- You will find the Number Pad Tool, Question and Answer Tool, For Teacher button, and Restart button in your Tool Stores.

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# ActivTable Activities Teacher Notes

## PHONICS MONSTERS

SUBJECT AREA:	LANGUAGE ARTS
GRADE RANGE:	GRADES K,1, 2
STANDARDS:	RF.K.2/ RF.K.3/ RF.1.3 / RF.1.3 / RF.2.3
COGNITIVE LEVELS:	<b>KNOWLEDGE (REMEMBER):</b> LISTEN, RECOGNIZE, IDENTIFY, SELECT
USERS:	MAX. 6

## OVERVIEW

This activity focuses on distinguishing initial sounds along with long and short vowel sounds in one- and two-syllable words, including those with common vowel teams.

Students will:

- recognize initial sounds using sight and sound cues
- distinguish long and short vowels in regularly spelled one-syllable words
- recognize common vowel teams

## TEACHER GUIDE

### GATHER PRIOR KNOWLEDGE

- What is the difference between a vowel and a consonant?
- Can a word be made up of all vowels or all consonants? Why?
- How do you know whether a word has one syllable or two syllables?

### INTRODUCE ACTIVITY

- Tell students they will help gather snacks for a group of friendly monsters.
- Each friendly monster has a favorite sound. Students can hear their own monster's favorite sound by pressing the Sound button on its stomach.
- Students will overturn snacks on the ActivTable and look for words that start with their monster's favorite sound. They can hear the words by pressing the Sound button on the back of each snack card.
- If they uncover a word that matches their monster's favorite sound, students should collect that snack and place it on their monster's tray.
- If they uncover a word that doesn't start with the sound on their monster's stomach, they should flip the snack back over.
- Students should continue looking for words until they have matched each monster with three words/snacks.
- At the end of the game, ask students to be sure all their words begin with their monster's favorite sound.
- Review phonics as necessary.
- Students will find the Question and Answer Tool, Keyboard Tool and Restart button in their Tool Stores.

### AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, students answer review questions in the Question and Answer Tool:

- How many of your monsters' words have one syllable?
- Do any of the monsters' words have two syllables?



# ActivTable Activities Teacher Notes

- Do any of the monsters' words rhyme?
- Touch a monster's stomach. Repeat the sound aloud. Then, tell your fellow students a word that begins with the same sound.
- Look at the cards on each monster's tray. Identify the words that have "vowel teams." Tell your fellow students both the word and the letters that make up the team.
- Think of and name snacks that people like to eat that begin with each monster's favorite sound.
- Say each of the long vowel sounds. Then, for each of the long vowel sounds, think of a word that begins with your monster's favorite sound and also contains the long vowel sound.
- Say each of the short vowel sounds. Then, for each of the long vowel sounds, think of a word that begins with your monster's favorite sound and also contains the short vowel sound.

## STUDENT HELP

- You will help gather snacks for the group of friendly monsters. Choose a monster each.
- Each friendly monster has a favorite sound. To hear your own monster's sound, press the Sound button on its stomach.
- You will overturn snacks and look for words that start with your monster's favorite sound.
- If you uncover a word that matches your monster's favorite sound, collect that snack and place it on your monster's tray.
- If you uncover a word that doesn't begin with your monster's favorite sound, flip the snack back over.
- Continue looking for words until you've matched each monster with three snacks.
- Remember you can press your monster's Sound button to be reminded of its favorite sound.
- At the end of the game, make sure all of your words begin with your monster's favorite sound.
- If any of the snacks are matched to the wrong monster, trade with another monster until all of the snacks are on the correct tray.
- After you have played the game, use the Keyboard Tool to answer the questions in the Question and Answer Tool.
- Your teacher will mark your work.
- You will find the Keyboard Tool, Question and Answer Tool and Restart button in your Tool Stores.

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# ActivTable Activities Teacher Notes

## PLACE VALUE BINGO

SUBJECT AREA:	MATHEMATICS
GRADE RANGE:	GRADE 5
STANDARDS:	5.OA.1 / 5.OA.2 / 5.NBT.3
COGNITIVE LEVELS:	<b>APPLICATION (APPLY):</b> EXAMINE, INTERPRET, COMPARE, CHOOSE
USERS:	4

### OVERVIEW

This activity focuses on place value and recognizing numbers with up to 3 decimal places both in base-ten and expanded notations.

Students will:

- recognize base-ten and expanded notations of numbers with up to 3 decimal places
- compare base-ten and expanded notations of numbers with up to 3 decimal places
- compare decimal amounts to thousandths using  $<$ ,  $>$ , and  $=$

This activity can be used during a unit on decimals and fractions.

### TEACHER GUIDE

#### GATHER PRIOR KNOWLEDGE

- Have you ever played bingo? Can you explain how the game is played?
- Which position after the decimal point shows tenths? Hundredths? Thousandths?
- Which operation should you perform first, addition or multiplication?
- Why is order of operations important?

#### INTRODUCE ACTIVITY

- Tell students that in this activity they will play a bingo-like game.
- Explain that each student will match, one by one, numbers in expanded notation to the same numbers in base-ten notations. The goal is to uncover the match for every number on their Bingo Card.
- Review place value as necessary.
- Review expanded notation as necessary, including both decimal and fractional notations.
- Students will find the Calculator Tool, Answer Key, Workpad Tool, Question and Answer Tool, and For Teacher button in their Tool Stores.

#### AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, students work as a team to answer the review questions in the Question and Answer Tool:

- What is the greatest number on your card? What is the smallest?
- What comparisons can you make among numbers to the left and to the right of the decimal? Think about place value.
- How many different ways can you think of to express the same number?
- Where do you encounter decimals in day-to-day life?

# ActivTable Activities Teacher Notes

## STUDENT HELP

- Everybody has a Bingo Card. Notice all the numbers on it are in base-ten notation.
- Take turns flipping cards from the pile of small cards; each card will reveal a number in expanded notation.
- Check your Bingo Card to see if it shows the number expressed in base-ten notation. If it does, long-press the number on the Bingo Card; this will highlight it.
- Once everyone has checked and marked the number, drag the smaller card to the Discard Pile.
- Continue playing until one player highlights all the numbers on their card.
- The first player to complete his or her card should call out “bingo!”.
- Use the cards in the Discard Pile along with the Answer Key to check that all the highlighted numbers on the winning Bingo Card are correct. You can drag cards from the Discard Pile next to your Bingo Card to check your answers; then you can drag the cards to the Trash.
- You will find the Calculator Tool, Answer Key, Workpad Tool, Question and Answer Tool, and For Teacher button in your Tool Stores.

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# ActivTable Activities Teacher Notes

## RACECAR MATH

SUBJECT AREA:	MATHEMATICS
GRADE RANGE:	GRADE 3, 4, 5
STANDARDS:	3. MD 1./ 3.NBT.2. / 4. OA 2. / 4. OA 3. / 4. NF 3. / 4. NF 4. 5. NF 2. / 5.NBT 6. / 5.NBT 7.
COGNITIVE LEVELS:	<b>APPLICATION (APPLY):</b> SOLVE, APPLY, CALCULATE <b>ANALYSIS (ANALYZE):</b> COMPARE, DETERMINE, BREAK DOWN, TAKE APART
USERS:	MAX. 4

## OVERVIEW

This activity uses the traditional board game format and collaboration to present math word problems

Students will:

- Solve math word problems presented in the context of a car race around a board game
- Use addition and subtraction within 100 to solve problems involving lengths
- Use the four operations to solve word problems involving money, elapsed time, distances, liquid volumes, masses of objects, including problems involving simple fractions and decimals
- Solve two-step word problems using the four operations, including the use of mental computation and estimation strategies including rounding
- Solve word problems involving addition and subtraction of time intervals in minutes and hours
- Multiply or divide to solve word problems involving multiplicative comparison
- Solve multistep word problems using the four operations, including problems in which remainders must be interpreted
- Solve word problems involving addition and subtraction of fractions, and multiplication of a fraction by a whole number
- Solve word problems involving addition and subtraction of fractions with unlike denominators

This activity can be used during a unit on word problems. This activity may also be used to illustrate the application of mathematics in the world beyond the classroom.

## TEACHER GUIDE

### GATHER PRIOR KNOWLEDGE

- Have you seen or ever been to a car race? (student experiences will vary)
- Can you think of a situation in the sport of car racing where math skills would be used? (answers will vary, but might include time of fastest and slowest cars, weight and length of car, amount of fuel)
- How do we measure speed of a vehicle? (miles/hour or kilometers/hour)
- How do we measure how much fuel a vehicle has used? (miles/gallon or kilometers/liter)
- How do we calculate the average of several numbers? (add the numbers and divide by the number of numbers)

### INTRODUCE ACTIVITY

- Tell students that they will play a game similar to a board game.
- They will work together to calculate the problems that will be presented on Problem Cards.



# ActivTable Activities Teacher Notes

- They will move their Tokens (Racecars) around the track as they solve problems. The aim is to get all of the cars across the finish line in the fastest possible time.
- If they land on a Bonus square, or a Forfeit square, they will draw a card from those piles and follow the instructions on the cards.
- Review strategies for solving number stories, or word problems including the following:
  - 3) Read the problem and identify what you need to find out.
  - 4) Plan what to do – draw a picture or diagram, write a number model, estimate the answer
  - 5) Answer the question – and check to be sure that it makes sense. Check to see if you have answered the question asked in the problem.
  - 6) Students will find Racecar Tokens, Spinner Tool, Question and Answer Tool, Workpad Tool, Calculator Tool, For Teacher button, and Restart button in their Tool Stores.

## WHAT HAVE YOU LEARNED?

After the activity, students work as a team to answer these review questions:

- What is elapsed time? How is it calculated?
- What does km/h (kilometers/hour) measure, and how is it calculated?
- How do you convert centimeters to meters?
- What does mpg (miles/gallon) measure, and how do you calculate it?

## STUDENT HELP

- Take the Racecars from your Tool Stores and place them on the Start line.
- Each use the Spinner Tool to generate a number. The player with the lowest number (1 – 6) goes first. Play will continue clockwise around the table.
- To play the game: press the Start button on the Timer, spin the Spinner Tool and then take a Problem Card from the top of the pile and flip it to reveal the problem you must solve.
- Work with your teammates to solve the problem. When you have all agreed on a solution, flip the Answer Card to check your answer. If you answered correctly, move your Racecar down the track the number of spaces shown on the Spinner Tool.
- If you land on a Bonus square, flip a Bonus card and follow the instructions on the card.
- If you land on a Forfeit square, flip a Forfeit card and follow the instructions on the card.
- Use the Trash Tool to get rid of the cards you have used.
- The game ends when all four cards have crossed the Finish Line! You should work together and aim to complete the race in the fastest possible time.
- You will find racecar tokens, Spinner Tool, Question and Answer Tool, Workpad Tool, Calculator Tool, Trash Tool, For Teacher button, and Restart button in your Tool Stores.

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# ActivTable Activities Teacher Notes

## ROAD TRIP

SUBJECT AREA:	SOCIAL STUDIES
GRADE RANGE:	GRADES 2, 3, 4
STANDARDS:	NSS-G.K-12.1
COGNITIVE LEVELS:	<b>APPLICATION (APPLY):</b> USE, CALCULATE, INTERPRET, RECORD, COMPARE, MEASURE <b>ANALYSIS (ANALYZE):</b> EXAMINE, DISTINGUISH, BREAK DOWN, IDENTIFY
USERS:	4

## OVERVIEW

This activity encourages collaboration to find specific locations on a map.

Students will:

- practice using map scale
- use the Ruler Tool to measure distance on a map
- use a compass to determine cardinal directions on a map
- read latitude and longitude coordinates to find a location on a map
- collaborate to solve problems

## TEACHER GUIDE

### GATHER PRIOR KNOWLEDGE

- Have you ever gone on a trip? Where did you go? (Student experiences will vary.)
- Where do you find out how to get to places you don't know? (Find it on a map, or ask for directions.)
- How do you find out how far two places are from each other? (Measure the distance on a map, and use the map scale to find out the distance in miles/km.)

### INTRODUCE ACTIVITY

- Tell students that they will plot a trip around the continent on a map.
- Explain that each student has five labels with names of destinations that he or she must "visit". The labels are numbered in the order in which they should be visited.
- Each student also has a list of directions for destinations that other students in the group have to visit.
- Students will take turns placing their labels (in the order in which they are numbered) on the map in the correct locations; to place their labels, students will have to ask the rest of the group for directions.
- Students will join each destination to the last using the Connector Tool.
- They will also measure and label the distance between the two destinations in miles/km.
- Explain that each student in the group has different tools available and that they have to collaborate in order to complete the task.
- Remind students to use the Ruler Tool, the compass, and scale and coordinate system on the map to place their labels and measure the distances correctly.
- Tell students that if they end up in what appears to be a wrong place, they should make sure that their previous destinations were placed correctly. They can use the ActivBrowser, which points at Google Maps, to help them if they are stuck.
- After the entire trip is plotted, remind students to answer the questions in the Question and Answer Tool.
- Students will find the labels, directions, Connector Tool, Keyboard Tool, Number Pad Tool, Calculator Tool, Ruler Tool, ActivBrowser Tool, Question and Answer Tool, and For Teacher button in their Tool Stores.

# ActivTable Activities Teacher Notes

## AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, students work as a team to answer the review questions in the Question and Answer Tool:

- Which destination is the farthest north?
- Which leg of the journey is the longest?
- What is the length of the entire trip?
- How many times would you have to cross a body of water on this trip?

## STUDENT HELP

- You will plot a trip around the continent on a map.
- Read the labels of the five places that you have to find on the map.
- The labels are numbered, so take turns placing them on the map in the correct order.
- If you have the destination “1”, ask the group who has directions for you.
- Every student has information that other student needs; so when someone asks you for directions, read them aloud.
- Use the Connector Tool to connect each new label to the previous label.
- Use the Keyboard Tool, Ruler Tool, and scale to measure and record the distance between the two destinations in miles/km. Each user has different tools in their Tool Stores so you will need to collaborate in order to complete the task.
- Continue placing and connecting labels on the map until there are none left.
- You can use the ActivBrowser Tool, which directs to Google Maps, to check the position of the labels, and distances you measured.
- You will find the labels, directions, Connector Tool, Keyboard Tool, Number Pad Tool, Calculator Tool, Ruler Tool, ActivBrowser Tool, Question and Answer Tool, and For Teacher button in your Tool Stores.

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# ActivTable Activities Teacher Notes

## SEE IT, GRAPH IT, SAFARI!

SUBJECT AREA:	MATHEMATICS
GRADE RANGE:	GRADES 2, 3
STANDARDS:	2.MD10 / 3.MD3 / NS.K-4.3
COGNITIVE LEVELS:	<b>ANALYSIS (ANALYZE):</b> CHART, GRAPH, GROUP, COMPARE, CALCULATE, RESEARCH
USERS:	MAX. 6

### OVERVIEW

This activity focuses on pictogram and bar graphs as a way of accounting for, and keeping track of, numbers of multiple items.

Students will:

- create a pictogram to keep track of the number of animals in a safari park
- use a bar graph to check the accuracy of their pictogram
- find the solution to word problems using the pictogram or bar graph

This activity can be used during a unit on various types of graphs. It could also be used in a social studies unit on animal habitats and animal conservation.

### TEACHER GUIDE

#### GATHER PRIOR KNOWLEDGE

- How can pictogram and graphs help us?
- What does a pictogram look like? What does a bar graph look like?
- Do you know what a crocodile looks like? Where does a crocodile live? What about an elephant, giraffe, lion, monkey, and parrot?

#### INTRODUCE ACTIVITY

- Explain to students that by searching around a safari park, they will find animals that have escaped from their own habitats and restore order in the park.
- Each student will be responsible for a different animal. To find out which animal they need to find and graph, each student should press the button on the Role Selector.
- Students will take turns looking for one of their missing animals.
- When they find an animal, they should find the area of the safari park where the animal belongs and take it home. These areas are marked with signposts.
- Students will then 'stamp' a pictogram to keep track of the number of animals they've found.
- Explain to students that once they think they have found all the animals and their pictogram is complete, they will take the Answer Key from their Tool Store and compare the information. The Answer Key shows the same data presented on a bar graph.
- Tell students that if the bar graph and pictogram do not show the same number of animals, they must work as a team to revisit the safari park and find the rest of the missing animals.
- Provide a sample of a pictogram.
- Provide a sample of a bar graph.
- Show students photographs of crocodiles, elephants, giraffes, lions, monkeys, and parrots and discuss the natural habitats of each.
- Students will find the Number Pad Tool, Flipchart Maker Tool, Questions and Answer Tool, For Teacher button, Role Selector, and Answer Key in their Tool Stores.

# ActivTable Activities Teacher Notes

## AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, students answer review questions in the Question and Answer Tool:

- How many animals are living in the park?
- The parrots that live in the park like to sit on the giraffes' backs. If each parrot sits on a different giraffe, how many giraffes will not have a parrot sitting their back?
- How many non-flying animals live in the park?
- If the chimpanzees meet the giraffes and elephants for a drink at the river, how many animals will be at that meeting?
- How many more chimpanzees are in the park than elephants?
- Chimpanzees and parrots both like to be up in the trees. If all of the monkeys and all of the parrots were hanging out in one tree, how many of them would there be in the tree?

## STUDENT HELP

- There is a crisis at the safari park. All the animals have escaped from their own habitats. You will form a search team to look for the animals and make sure they get home safely to where they belong.
- Use the Role Selector to find out which animal you should look for.
- One student at a time, explore the safari park and look for your animals, some of which may be hiding.
- You can scroll the background to explore more of the park.
- When you find one of your animals, find the animal's habitat and return it safely; you will be able to find each animal's habitat by reading the wooden signs.
- Next, you need to mark the pictogram with a stamp to keep track of how many animals you have found.
- You will find the pictogram at the edge of the park and just need to long-press in a box to stamp it.
- Continue until you've searched the whole safari park and think you have found all the missing animals.
- Finally, you can compare your pictogram to an Answer Key. The Answer Key will reveal a bar graph showing how many animals live in the safari park. This is the number of animals you should have found.
- If the bar graph and your pictogram do not have the same number of animals, you should work as a team to revisit the safari park and find the rest of the missing animals.
- You will find the Number Pad Tool, Flipchart Maker Tool, Questions and Answer Tool, For Teacher button, Role Selector, and Answer Key in your Tool Stores.

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# ActivTable Activities Teacher Notes

## SHORT VOWEL CONCENTRATION

SUBJECT AREA:	LANGUAGE ARTS
GRADE RANGE:	GRADES K, 1, 2
STANDARDS:	RF.K.3/ RF.1.2 / RF.1.3 / RF.2.3
COGNITIVE LEVELS:	<b>KNOWLEDGE (REMEMBER):</b> RECOGNIZE, MATCH <b>COMPREHENSION (UNDERSTAND):</b> COMPARE, DIFFERENTIATE, GIVE EXAMPLES
USERS:	MAX. 6

### OVERVIEW

This activity focuses on recognizing and naming short vowel sounds in one-syllable, consonant-vowel-consonant (CVC) words.

Students will:

- recognize and name short vowel sounds using sight and sound cues
- match short vowel sounds using sight and sound cues
- recognize short vowel sounds in regularly spelled one-syllable CVC words
- work as a team to help classmates recognize, think of, and spell one-syllable CVC words containing short vowel sounds

### TEACHER GUIDE

#### GATHER PRIOR KNOWLEDGE

- What is the difference between a vowel and a consonant?
- How many vowels are there? Name them.
- Do you know the difference between long and short vowels?
- Make the sound for each short vowel sound.

#### INTRODUCE ACTIVITY

- Students have 24 cards. They will be working against the clock.
- The goal of the activity is to find all the matching pairs before the time runs out.
- A matching pair shows two words containing the same short vowel sound, for example, *map* and *pat*.
- Players should press Start on the Timer and take turns flipping two cards at a time.
- If students find a matching pair, they should drag both cards to the Lazy River. Remind players that they can press the Sound button on each card to check and compare the short vowel sounds.
- If students don't find a matching pair, they should flip both cards back over.
- The game continues in this way, with players taking turns choosing two cards each.
- Because students are working as a team, they should help one another remember what words and vowel sounds are on the back of different cards.
- The game is over when the buzzer sounds or when students have found all 12 matches.
- Students can restart the game to play again. Adjust the timer to add or subtract from the 3-minute time allowance.
- Review short vowel sounds as necessary.
- Students will find the Question and Answer Tool, Keyboard Tool and Restart button in their Tool Stores.

#### AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, students should work as a team to answer the review questions in the Question and Answer Tool:

# ActivTable Activities Teacher Notes

- What vowel sounds did this activity focus on?
- The words in the activity were one syllable. Can you think of any two-syllable words that have a short vowel sound?
- Did any of the words in the activity rhyme?
- Think of other words that use short vowel sounds and share them with your classmates. Spell them if you can.
- With your classmates, name two words with the short-a vowel sound that were not used in the activity today. Can you spell them?
- With your classmates, name two words with the short-e vowel sound that were not used in the activity today. Can you spell them?
- Were you able to beat the clock?
- What was your team's fastest time?

## STUDENT HELP

- Work with your teammates to find pairs of matching vowel sounds before the time runs out.
- Press the Start button on the timer when you are ready to begin.
- Then, take turns flipping two cards at a time.
- Tap the Sound button next to each word to hear it read aloud.
- Decide with your classmates which vowel sound you hear.
- If both short vowel sounds are the same, you have found a matching pair.
- Drag matching pairs to the Lazy River.
- If both short vowel sounds are not the same, flip the cards back over.
- The next student should repeat these steps trying to find a match.
- You are playing as a team so help one another remember what words and vowel sounds are on the back of the different cards. This will help you to find matches more quickly.
- The game is over when you have found all 12 matches.
- If you run out of time, the buzzer will sound and the game is over.
- To play again, tap the Restart button.
- Adjust the time allowance if you would like more or less time to complete the game.
- After you have played the game, use the Keyboard Tool to answer the questions in the Question and Answer Tool.
- You will find the Question and Answer Tool, Keyboard Tool and Restart button in your Tool Stores.

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# ActivTable Activities Teacher Notes

## SPACE DISCOVERY TIMELINE

SUBJECT AREA:	SCIENCE
GRADE RANGE:	GRADES 3, 4, 5
STANDARDS:	RI.3.1 / RI.3.5 / RI.3.7 / RI.3.10 / RI.4.3 / RI.4.7 / RI.4.10 / RI.5.7 / RI.5.9 / RI.5.10 / NS.K-4.4 / NS.K-4.5 / NS.K-4.7 / NS.5-8.5 / NS.5-8.7
COGNITIVE LEVELS:	<b>ANALYSIS (ANALYZE):</b> RESEARCH, DISCOVER, EXAMINE, INQUIRE, INTERPRET, CHOOSE <b>SYNTHESIS (CREATE):</b> COMPILE, ORGANIZE, BLEND <b>EVALUATION (EVALUATE):</b> CONSIDER, SUMMARIZE, CONCLUDE, REJECT, SELECT, SUPPORT
USERS:	MAX. 6

## OVERVIEW

This activity provides students practice in the research skills necessary to gather information about science discoveries and events.

Students will:

- read a timeline
- use the internet to gather information about an event or discovery
- complete an Information Sheet about an event or discovery

This activity can be used during a science unit on Earth and space, history of science, scientists, and technology.

## TEACHER GUIDE

### GATHER PRIOR KNOWLEDGE

- What important events in space exploration do you know about?
- Why are they important?
- Do you know when they happened? If not, how would you find out?
- Who is your favorite space exploration hero, real or fictional? Why?

### INTRODUCE ACTIVITY

- Tell students they will research information about people and events in space discovery.
  - The Lazy River contains 12 labels, which correspond to different events in space history.
  - The Picture Frame contains 12 images, which correspond to these events.
  - The Timeline Dates widget contains the 12 dates associated with the events.
- Students will create a timeline and match each label to a date and an image using the blank Information Sheets provided.
- Explain that first, students will take a guess at what order they think the events happened in. They will add the labels to the Information Sheets and place them on the timeline accordingly.
- Next, they can drop the labels and images onto the ActivBrowser to find more about the events they correspond with.
- Students will add interesting information and images to the Information Sheets as they research each event.

# ActivTable Activities Teacher Notes

- If one student finds information about an event another student is researching, they should share what they have found.
- Tell students that they will continue to work as a team until they have researched all of the events.
- If there is spare time at the end of the task, students could research and add other significant space discovery dates to the timeline.
- Students will find the Timeline Tool, ActivBrowser Tool, Keyboard Tool, Workpad Tool, Question and Answer Tool, and Information Sheet in their Tool Stores.

---

## AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, students work as a team to answer the review questions in the Question and Answer Tool:

- Which century has been the most eventful in space exploration?
- What countries played the most important role in space discovery?
- Where would you learn about any new important space discoveries or events?
- What do you think might happen next in space discovery? Add your ideas to the timeline.

## STUDENT HELP

- First, you will use the Timeline Tool to create a timeline, and then you will research and compile information on 12 key events in space discovery.
- You have 12 labels, 12 images, and 12 dates, which each correspond to one event.
- You can drag the labels and the images onto the ActivBrowser to find out the events they are linked to.
- You will record your findings about each event on an Information Sheet, which you will place in the correct position on the timeline.
- Before you begin your research, drag each label onto an Information Sheet in the “event” space.
- As a group, try to complete the timeline by dragging Information Sheets to the correct places on the timeline. Discuss together why you think events took place in that order. It’s okay to guess.
- After you have ordered the events, choose one to research.
- Scroll through the Timeline Dates widget and find the date that matches your event. Drag it to the space provided on your Information Sheet.
- Scroll through the Picture Frame and find a picture that illustrates the event. Drag it to the space provided in your Information Sheet.
- You can add more pictures as you find them while researching the event.
- Correct the order of events on the timeline as you find out more about what happened when.
- Make a note on your Information Sheet of anything you think is important or interesting about your event.
- If you discover important information about an event other students are researching, help them out by sharing what you have found.
- Continue to work as a team until you have researched all of the events.
- If you have spare time at the end of the task, research and add other significant space discovery dates to the timeline.
- You will find the Timeline Tool, ActivBrowser Tool, Keyboard Tool, WorkPad Tool, Question and Answer Tool, and blank Information Sheet in your Tool Stores.

# ActivTable Activities Teacher Notes

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# ActivTable Activities Teacher Notes

## SYNONYM DOMINOES

SUBJECT AREA:	LANGUAGE ARTS
GRADE RANGE:	GRADES 4, 5
STANDARDS:	L.4.5.C / L.5.5.C
COGNITIVE LEVELS:	<b>KNOWLEDGE (REMEMBER):</b> IDENTIFY, RECALL, DEFINE, MATCH
USERS:	MAX. 6

## OVERVIEW

This activity requires students to recognize synonyms for common words.

Students will:

- read a word
- scan a group of words to find synonyms
- match words with their synonyms

This activity can be used during a unit on synonyms. This activity may also be used to build vocabulary.

## TEACHER GUIDE

### GATHER PRIOR KNOWLEDGE

- Can you think of any words that have a similar meaning to *run*? (jog, trot, sprint, dash)
- Can you think of any words that have a similar meaning to *bitter*? (tart, sour, vinegary)
- What are words like this with similar meanings called? (synonyms)

### INTRODUCE ACTIVITY

- Tell students that they will play a game of dominoes in which they match words with similar meanings.
- Explain that there are two words on each domino.
- Students will take turns finding a matching synonym for a word on either end of the domino chain.
- Tell students that when they find a synonym on another domino, they will drag it to connect the two dominoes at the synonyms.
- Students will work together try to find all the synonym pairs in the fastest possible time.
- Students will find the For Teacher button, and Restart button in their Tool Stores.

### STUDENT HELP

- The aim of the game is to connect all the dominoes in the fastest time possible.
- You will take turns connecting dominoes.
- Press the Start button on the timer to begin playing.
- When it's your move, read the words at both ends of the domino chain.
- Look for a synonym on one of the dominoes in the Lazy River.
- When you find a domino with a synonym on it, connect the synonyms to make a domino chain.
- You can rotate dominoes by dragging them with two fingers.
- Continue taking turns until you've connected all of the dominoes.
- When the chain is complete, press the Stop button on the timer and make a note of your time.
- Use the For Teacher button to show your teacher a picture of your domino chain.
- Restart the activity to play again with new words.
- Try to complete the chain in a faster time.
- You will find the For Teacher button, and Restart button in your Tool Stores.



# ActivTable Activities Teacher Notes

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# ActivTable Activities Teacher Notes

## TIMES OF DAY

SUBJECT AREA:	MATHEMATICS
GRADE RANGE:	GRADES 1, 2
STANDARDS:	1.MD.3 / 2.MD.7
COGNITIVE LEVELS:	<b>KNOWLEDGE (REMEMBER):</b> RECALL, LOCATE <b>COMPREHENSION (UNDERSTAND):</b> COMPARE, INTERPRET, DESCRIBE, ORDER, WRITE
USERS:	4

## OVERVIEW

This activity allows students to practice matching activities that occur at certain times of day with actual clock times.

Students will:

- read clocks in analog format
- tell the time to the nearest hour and half hour
- determine the time of day that certain events occur
- match daily activities with appropriate clock times
- sequence events

Grade 2

- tell the time to the nearest five minutes using a.m. and p.m.

## TEACHER GUIDE

### GATHER PRIOR KNOWLEDGE

- What is the difference between digital clocks and clocks with hands?
- What kinds of things do you do in the morning? What kinds of things do you do in the evening?
- What time do you get out of school each day?

### INTRODUCE ACTIVITY

- Review telling the time with analog clocks with students.
- As a warm up, ask them to answer the questions in the Question and Answer Tool.
- Then, tell students that they will work together to read clocks and match them with photos that show daily activities.
- To begin, students should review the images. They should discuss what is happening in each image, and what time of day they associate with each activity.
- Next, they should choose five image images to sequence in the day-to-night area of the activity.
- They can Trash the remaining five images.
- Then, students should match each image with a clock. They should choose the clock showing the time that best matches the each activity.
- They can Trash the remaining five clocks.
- Finally, students can work together using their Keyboard Tools to create labels or captions for each image.
- Encourage students to produce a written narrative of the events.

# ActivTable Activities Teacher Notes

- Students can use the keywords along the edge of the ActivTable as prompts and as a reminder of concepts of relative time.
- They can use the For Teacher button at the end of the activity to send you their work for review.
- If you press the Restart button, the activity will reload with a new set of clocks and images.
- Students will find the Keyboard Tool, Question and Answer Tool, Trash Tool, For Teacher button, and Restart button in their Tool Stores.

## AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

As an activity starter, students work as a team to answer the questions in the Question and Answer Tool:

- Look at the clocks and photos on the ActivTable. What are some things you do before school?
- Look at the clocks and photos on the ActivTable. What are some things you do after school?
- What are some things you do in the same order each day?
- What activities do you sometimes do at different times of day?

## STUDENT HELP

- Begin by answering the questions in the Question and Answer Tool.
- Then, look at the images on the ActivTable. What is happening in each image? At what time of day do you think this activity happens?
- Choose five of the images. Use the day-to-night area of the activity to sequence the events in chronological order, on other words, the order in which you think they happen. Place each image in its own box.
- Trash the remaining images.
- There are ten clocks on the ActivTable showing different times. Say aloud the time that each clock shows.
- Work as a team to match each activity with a clock. Choose the clock showing the time that best matches each activity. Drag each clock into the box with the matching image.
- Drag the remaining clocks to the Trash.
- Finally, you should work together using your Keyboard Tools to create labels or captions for each image.
- Try to describe what activities are happening in the pictures, and make connections between each event.
- You can use the keywords along the edge of the ActivTable to help you.
- Use the For Teacher button at the end of the activity to send your work to your teacher.
- You can press the Restart button to reload the activity with a new set of images and clocks.
- You will find the Keyboard Tool, Question and Answer Tool, Trash Tool, For Teacher button, and Restart button in your Tool Stores.

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# ActivTable Activities Teacher Notes

## TOWN PLANNERS

SUBJECT AREA:	MATHEMATICS
GRADE RANGE:	GRADES 3, 4
STANDARDS:	3.MD.8 / 3.MD.5 / 3.MD.7 / 4.MD.3
COGNITIVE LEVELS:	<b>APPLICATION (APPLY):</b> USE, CALCULATE, PRACTICE, DETERMINE, SIMULATE, CONSTRUCT, MODEL, MEASURE, RECORD <b>ANALYSIS (ANALYZE):</b> BREAK DOWN, ARRANGE, COMPARE, DISCRIMINATE, SOLVE
USERS:	MAX. 6

## OVERVIEW

This activity encourages role-play and collaboration to model the calculation of area and perimeter in a town setting.

Students will:

- calculate the area and perimeter of shapes representing buildings when given length and width dimensions
- calculate the area and perimeter of shapes representing buildings when given the area and one dimension (length or width) for the shape
- calculate the area and perimeter of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts
- identify two shapes with the same area but different perimeter measurements
- use multiplication and addition to calculate the area of a shape

This activity can be used during a unit on area and perimeter. This activity also encourages speaking and listening skills as students exchange information and ideas to create a plan.

## TEACHER GUIDE

### GATHER PRIOR KNOWLEDGE

- Have you seen new buildings being built in your neighborhood or around town? (Student experiences will vary.)
- What would someone need to know before building a new store or a library? (where to build it; what size it could be to fit in the space; what approvals need to be obtained from the town, such as an approved plan)
- How do you figure out how large the “footprint” or base of a building will be? What do we call this calculation? (area; multiply the length of the building times the width of the building)
- Why would you need to know the total distance around a building? What do we call this calculation? (perimeter; you would need to know if the shape of the building will fit on the available space)

### INTRODUCE ACTIVITY

- Review how to calculate area and perimeter. Model with several rectilinear shapes – include examples where dimensions are given for length and width; for area and length, or area and width, only; and where shapes include non-overlapping rectangles and total area is calculated by adding the areas of the non-overlapping parts.
- Tell students that they will be part of a town improvement team and each will have an important role – a city planner, a regional planner, an engineer, and an architect.

# ActivTable Activities Teacher Notes

- Explain that first they will work together to calculate the perimeter and area of some existing buildings and place labels on those buildings. Labels are provided in the Lazy River.
- Students can check they have labeled the buildings correctly by tapping the Tool icon in the corner of each building.
- Then, the team will be tasked with constructing new buildings in the town.
- Each student will find a specification for a new building inside the envelope in his or her Tool Store. Each specification will detail the length of the building and give one other measurement.
- Students will place those buildings on the map using 1-square unit blocks, also contained in their Tool Stores.
- Students will work as a team to create area and perimeter labels for the new buildings.
- Ask students to use the For Teacher button so you can review their work.
- Reset the activity before beginning the challenge activity.
- Each student will find a challenge card in his or her Tool Store.
- Each challenge gives the required area measurement of new building, and asks students to locate the building in a particular area of town. Students will work together to construct the buildings using their 1-square unit blocks.
- Each student will then take different role. One student will be responsible for measuring and labeling the area of the building, one student will be responsible for the perimeter measurement and labels, while the remaining two students will measure and label length and width.
- Students will find the Keyboard Tool, Number Pad Tool, Question and Answer Tool, Restart button, For Teacher button, unit square, envelope, and challenge cards in their Tool Stores.

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## AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, students answer review questions in the Question and Answer Tool:

- How can two shapes have the same area but different perimeters?
- How did you decide where to position the new buildings?
- What are two ways to determine the area of a shape?
- How do you calculate area when a shape is made up of two different parts?

## STUDENT HELP

### PART 1

- You should each choose 3 area labels and 3 perimeter labels from the Lazy River.
- Work together to calculate the perimeter and area of each labeled building in the town, and match the correct area and perimeter labels to the buildings.
- Check your answers by tapping the Tool icon in the corner of each building.

### PART 2

- You each have an envelope in your Tool Store. Flip the envelope to read information about new buildings you need to build in the town with the other members of the town improvements team.
- Create the buildings on the map by dragging unit blocks from your Tool Stores.
- Work together to calculate the perimeter and area of each new building. Type labels for each new building using the Keyboard Tool. Place your labels on the buildings.
- Use the For Teacher button to show your teacher your work.

### PART 3

- Restart the activity and work as a team on the challenge activities in your Tool Stores.
- Some special building projects have been proposed. Review the notes for each building.
- Decide where each building should be placed and create it by dragging unit blocks to the map.

# ActivTable Activities Teacher Notes

- Each student will then take on a different role. One should create area labels for the buildings, one should create perimeter labels, one should create length labels, and one should create width labels.
- Use the For Teacher button to show your teacher your work.
- You will find the Keyboard Tool, Number Pad Tool, Question and Answer Tool, Restart button, For Teacher button, unit square, envelope, and challenge cards in your Tool Stores.

## CREDITS

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# ActivTable Activities Teacher Notes

## NUMBER TANGLE

SUBJECT AREA:	MATHEMATICS
GRADE RANGE:	GRADES 1, 2,
STANDARDS:	1. NBT.2 / 1. NBT.3 /2.NBT.1 K.CC.7 /1. NBT.2 / 1. NBT.3 /2.NBT.1 /RELATED TO 2.NBT.4
COGNITIVE LEVELS:	<b>KNOWLEDGE (REMEMBER):</b> IDENTIFY, KNOW, <b>SELECT COMPREHENSION (UNDERSTAND):</b> COMPARE
USERS:	MAX. 7 (INC. REFEREE)

## OVERVIEW

This activity engages children in a physical game while they compare numbers.

Grade1 students will:

- compare numbers 1 – 20 using the terms *less than*, *greater than*, and *equal to*
- brainstorm and strategize methods of selecting numbers to decrease game time

Grade 2 and 3 students will:

- compare numbers 1 – 999 using the terms *less than*, *greater than*, and *equal to*
- compare the hundreds, tens, and ones digits of two three-digit numbers
- brainstorm and strategize methods of selecting numbers to decrease game time

This activity can be used to practice comparing numbers. This activity may also be used to discuss strategies and how they can be used while playing games or solving problems.

## TEACHER GUIDE

### GATHER PRIOR KNOWLEDGE

- How do you compare two numbers?

Grade 1:

- Name a number that is greater than 12. How do you know it is greater than 12?
- Name a number that is less than 12. How do you know it is less than 12?
- Which number is greater: 15 or 17? How do you know?

Grade 2 and 3:

- Name a number that is greater than 412. How do you know it is greater than 412?
- Name a number that is less than 412. How do you know it is less than 412?
- Which number is greater: 127 or 172? How do you know?

- How can you use a number line to compare numbers?
- What does *game strategy* mean?
- What kinds of games do you play that involve strategy?

### INTRODUCE ACTIVITY

- Review the terms *less than*, *greater than*, and *equal to* with students.
- Tell students they will play a game comparing numbers.
- Practice comparing three-digit numbers using the hundreds, tens, and ones digits.
- Explain that one player will be the Referee for the game. This player will generate the commands and record the time it takes to play the game.

# ActivTable Activities Teacher Notes

- Each of the remaining players will start with their left index finger on the “L” star nearest to their Token. They will place their right index finger on the “R” star.
- The game will begin when the Referee presses the Start button on the game Timer.
- Player 1 will choose a numbered UFO and place one finger on it. The UFO will glow to show it is selected.
- Next, the Referee will generate a command by pressing the button on the command generator. This will generate one of two commands: *less than*, or *greater than*.
- Player 2 will select and place a finger on a UFO with a number that follows the command.
- For example, if the Player 1 places their finger on number 5 and the referee generates the command *less than*, the Player 2 should place their finger on a UFO numbered 1, 2, 3, or 4.
- The game continues in this way until each student has one finger on a UFO.
- On their next turn, players will place their *other* finger on a different UFO.
- Eventually, every player will have both left and right fingers on different UFOs.
- On Player 1’s next turn, he or she will need to figure out which of their two fingers to move, and how to move to their target UFO without becoming tangled with other students.
- Students should aim to eliminate all of the UFOs in the fastest possible time.
- Review using a number line to compare numbers.
- Model one round of the game with students.
- Students will find the Question and Answer Tool and Keyboard Tool in one Student’s Tool Store.

## AFTER THE ACTIVITY: WHAT HAVE YOU LEARNED?

After the activity, grade 2 and 3 students will review the questions in the Question and Answer Tool.

- How did you decide which number to choose first?
- Did you use any strategies to determine which number to choose if more than one number follows the rule?
- What choices led to a longer or shorter game time?
- Can you think of other strategies that may be used to decrease the game time?

## STUDENT HELP

- Nominate one player to be the Referee and another player to choose the first UFO.
- Everyone other than the referee, place your left and right pointing fingers on the starting stars nearest to your Token.
- If you are the Referee, press the Start button on the Timer.
- Player 1 will move one finger to a UFO and say the number aloud. Keep your finger on the UFO!
- The Referee will then press the Generate Command button and read the command to the group.
- Player 2 will move one finger to a UFO that follows the command. Again say the number aloud.
- For example, if Player 1 chooses UFO number 5, and the Referee generates the command *less than*, Player two can move a finger to UFO 1, 2, 3, or 4.
- Repeat in this way until everyone has both fingers on a different UFO.
- When you’ve used both fingers, next time it is your turn, move one finger off an old UFO and place it on a new one.
- The game ends when all the UFOs have been selected. The Referee will press the Stop button on the Timer to check your time. You should aim to complete the game in the fastest possible time.
- If at any point there are no numbers available that follow the rule, the Referee can press the Generate Command button to get a new command.
- You will find the Question and Answer Tool and Keyboard Tool in one Player’s Tool Store.

## CREDITS

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