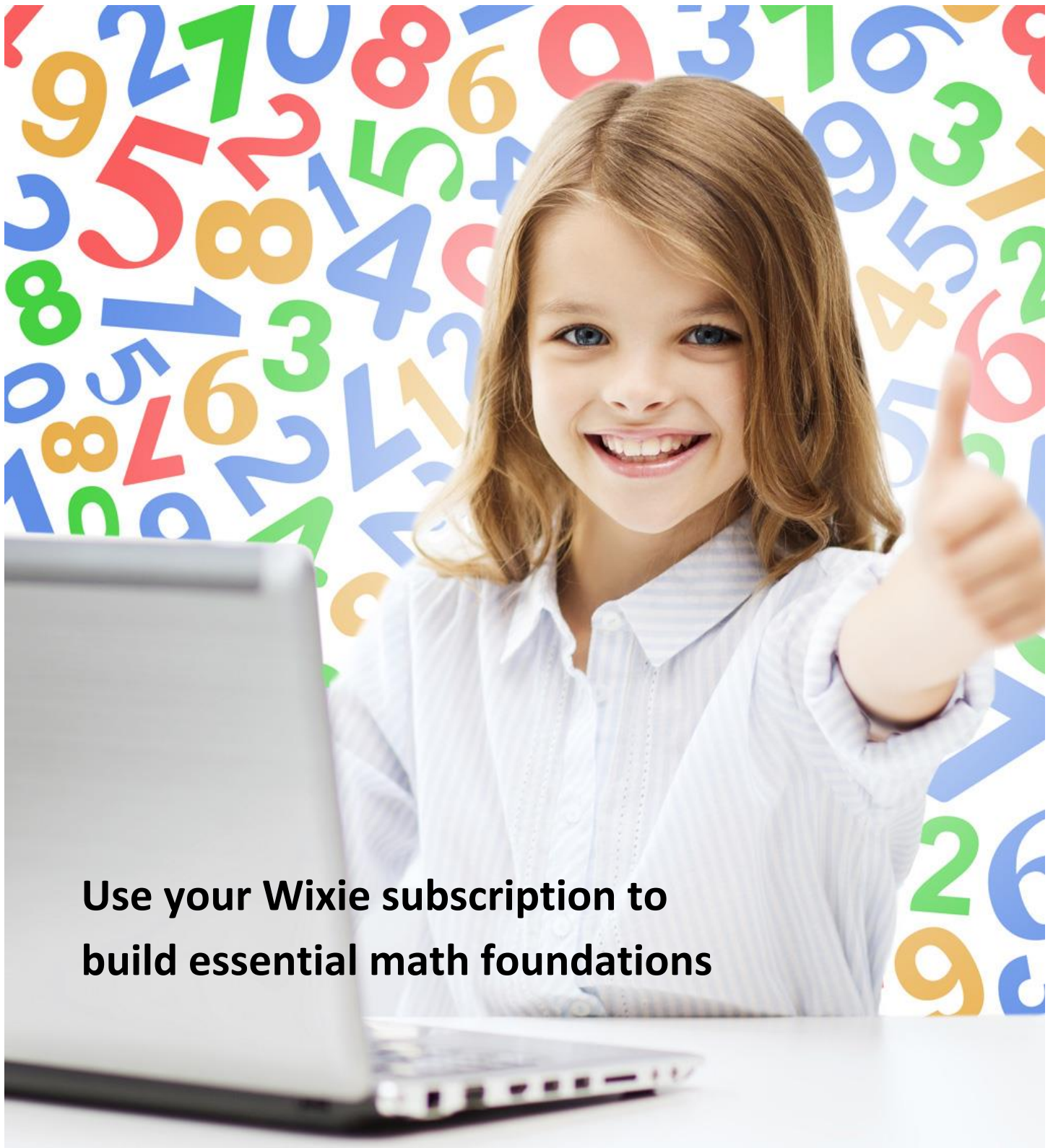


Wixie Curriculum Guide

Primary Math



**Use your Wixie subscription to
build essential math foundations**

What is Wixie?

Wixie is an online creativity tool primary students can use to write, record their voice, paint pictures, and tell stories. Wixie provides an engaging way for students to explore and respond to curriculum topics using either a blank page as their digital canvas or by completing a standards-based activity.

In the primary grades, learning is focused on reading and essential math foundations. At this foundational stage of learning, Wixie provides an opportunity for students to simply drag and drop to practice or demonstrate understanding or paint and play to construct knowledge.

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This kit is provided by:

Tech4Learning
6160 Mission Gorge Road, #206
San Diego, CA 92120

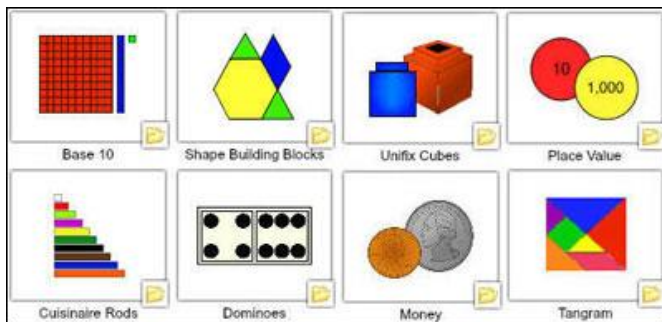
tech4learning.com

Using virtual manipulatives in Wixie

A tangible way to help students build number sense and math foundations.

Math manipulatives have always been a staple of primary classrooms because they help students see and grasp the nature of numbers and procedures. Wixie helps you take math in the digital realm.

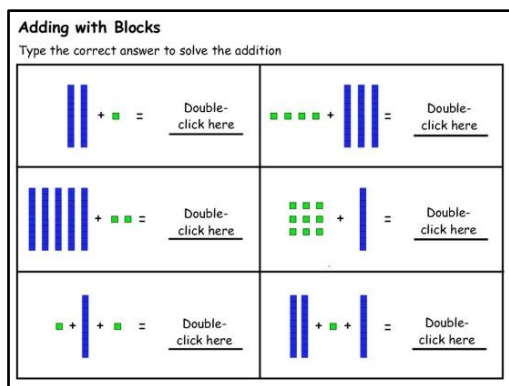
Wixie's Sticker library includes a wide range of virtual math manipulatives students can easily arrange and group to manipulate numbers and procedures.



Virtual manipulatives means you don't have to manage or distribute materials, and can focus on supporting student learning immediately after they log in.

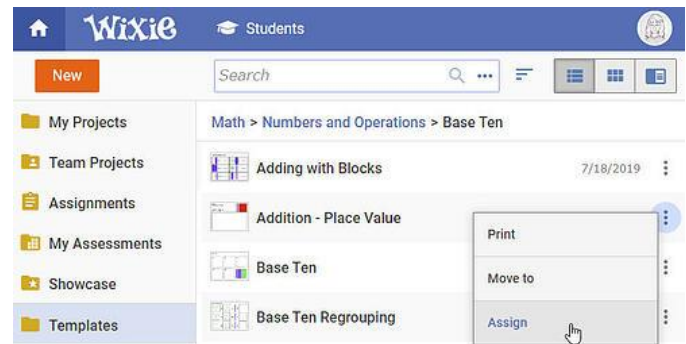
Wixie templates use manipulatives

Wixie includes a library of standards-based templates you can use to support student practice and for formative assessment purposes. These include work with money, fractions, tangrams, shapes, and more.



While not a traditional math “manipulative” per se, Wixie also includes virtual measurement tools like rulers and protractors.

Browse the Math category in the Templates folder or use the search field at the top of your Wixie home page to find a template already containing the virtual manipulatives you want to use.



When you find a template that you want to use with students, select the “more” dots to the right of or below the template and choose Assign.

All templates can be customized

If you want to edit the file to better meet the needs of your specific learners, open the template and choose Customize from the toolbar. If you choose to customize a template, or even create one from scratch, you can add manipulatives to the page to make it easier and faster for students to begin working.

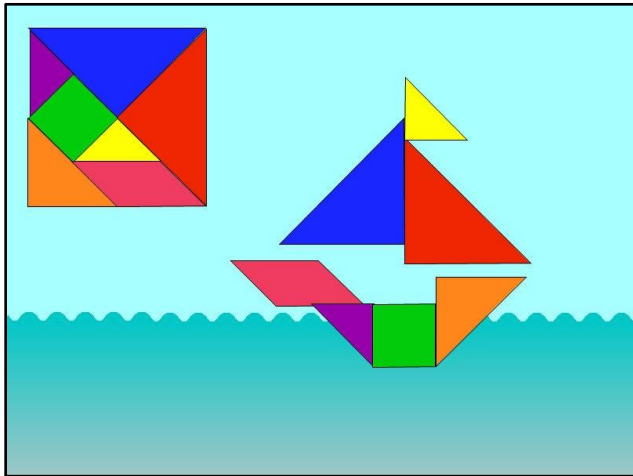
Wixie even allows you to set object properties, such as clone and scale. If you set a virtual manipulative to clone, each time a student selects and moves the object, it makes a copy. This frees up space to work and create with base ten blocks, Unifix cubes, and money.

You can also turn off scaling handles so that students don't accidentally change the size when they meant to simply move the manipulative. This is useful when arranging tangram shapes and geometric patterns.

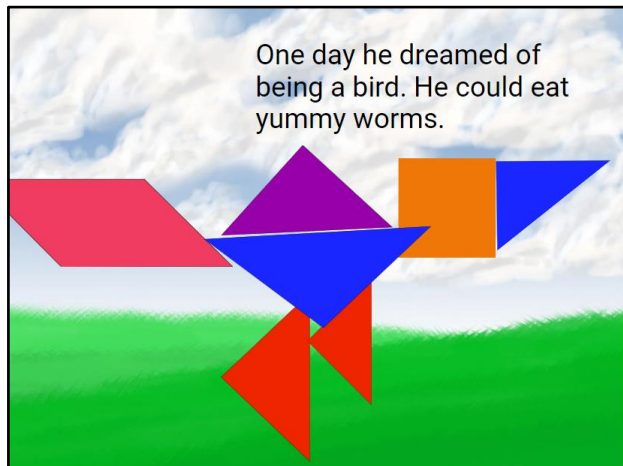
As students work with virtual manipulatives, they build cognitive models that teachers can actually see, allowing them to quickly perform formative assessments and identify misconceptions.

Virtual manipulatives and “play”

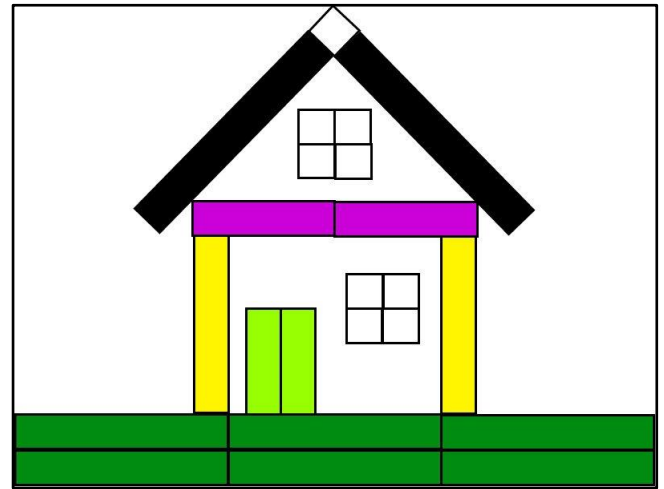
Many students have played with tangram shapes or puzzles at home. Moving and rotating tangram shapes to fill a silhouette helps students build and practice powerful math skills and understandings like congruence, spatial visualization, looking for patterns, and transformational geometry.



You can also combine virtual manipulatives with storytelling. For example, you could ask students to use tangram shapes to tell the story of a “happy square who dreamed of being something different, something exciting!”



Asking students to use a range or combination of Cuisenaire rods to make equal lengths is a great formative assessment. Creating images and designs with Cuisenaire rods can be a more powerful learning opportunity for your students.



As they work to create images and designs, they begin to conceptualize not only how a unit of ten can have a range of factors, but how they can apply this knowledge of equivalent value and fractional value to achieve their vision.

Working with virtual manipulatives is a fun way to practice and apply number sense and math skills. Virtual manipulatives are becoming an essential part of many online assessments and using these regularly in the classroom gives students the confidence to show off their mathematical thinking.

As you get started using virtual manipulatives rely first on existing templates, then watch your students work, so you can create your own virtual manipulative experiences that work to motivate, engage, and empower your learners.

Using math curriculum from Wixie's library

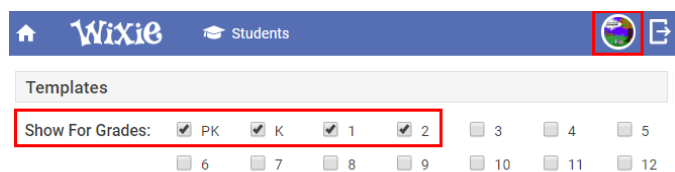
Use templates and activities from Wixie's curriculum library to explore, practice, reinforce, and evaluate math learning.

Wixie includes hundreds of standards-based templates designed to support math learning in the primary grades. Use these templates for formative assessments and to support performance tasks.

To find, edit, and assign an existing Wixie template, log in to your teacher account.

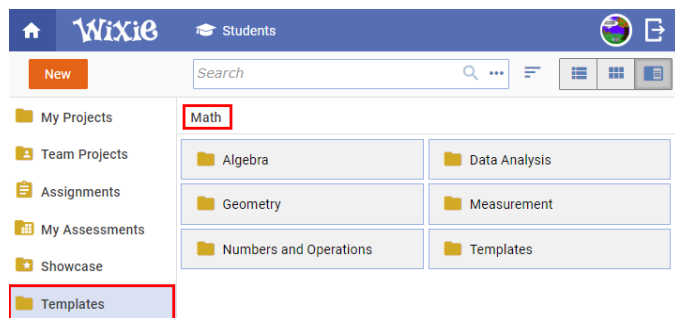
Select your profile icon and choose Settings from the drop-down menu.

Scroll to the Template area and select the box for your grade as well as the boxes either side for additional templates you can use for differentiation.



Use the Home button to return to your home page. Your grade level settings will be saved automatically.

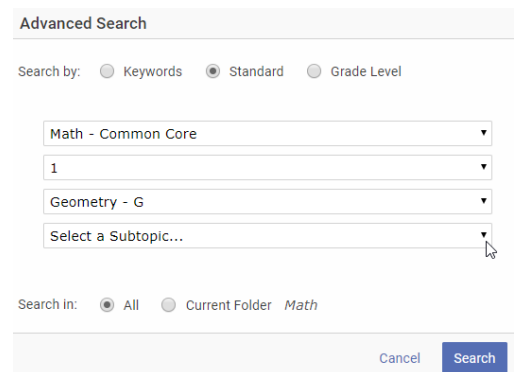
Open the Templates folder to browse the Math folder and sub-folders.



Use the field at the top to search for templates using a keyword. Type your keyword and click the magnifying glass on the right to search.

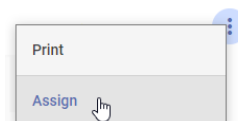


Click the three dots to the right of the field to display more search options and find templates based on standards, grade level, and additional criteria.

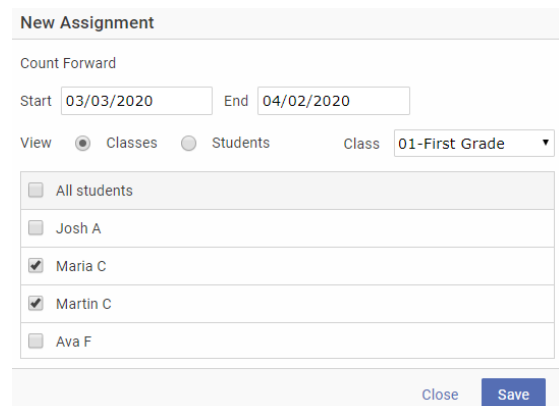


*This screenshot shows Common Core State Standards for Math. If you are in Maryland, Virginia, or Texas, you will see the CCR, SOL or TEKS standards.

When you find a template you want to use, use the three dots next to the file to choose Assign.

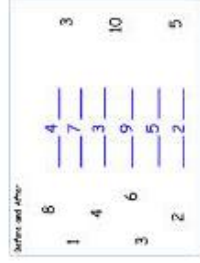


At the Assign dialog, choose how long you want it available for students to begin, as well as exactly which classes, and which students you want to use the template.

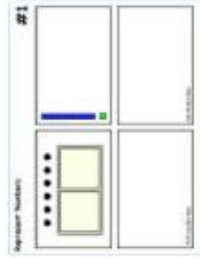


Sample Wixie Activities for Kindergarten Math

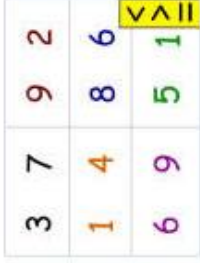
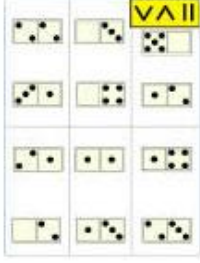
Know number names and the count sequence.



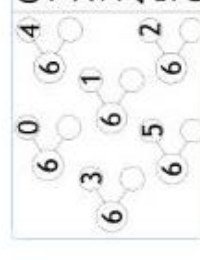
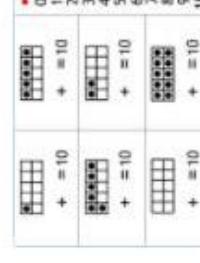
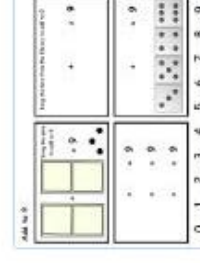
Count to tell the number of objects.



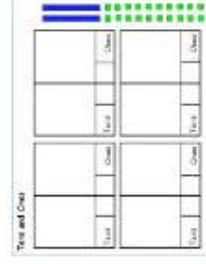
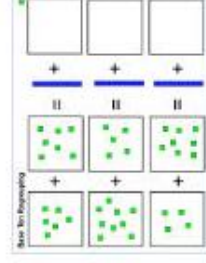
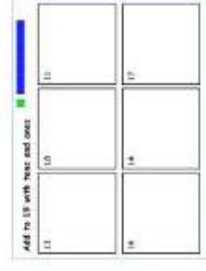
Compare numbers.



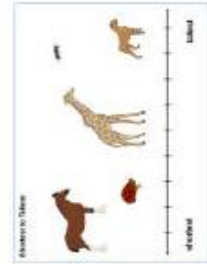
Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.



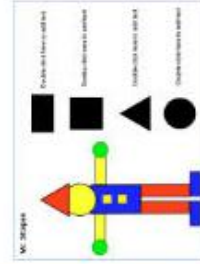
Work with numbers 11-19 to gain foundations for place value.



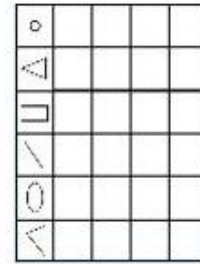
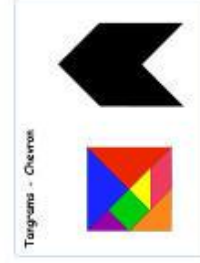
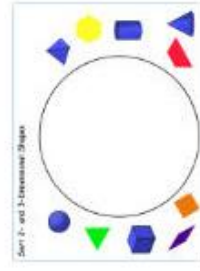
Describe and compare measurable attributes.



Identify, describe, and classify shapes.



Analyze, compare, create, and compose shapes.



Sample Wixie Templates for 1st-grade Math

Add and subtract within 20.

[illegible]

Understand relationship between addition and subtraction.

Skip Count by Two's

3	4	5	6	7	8	9	10

6 10 5

How many Ladybugs are there? _____

12 2 _____ = _____

How many Ladybugs are there? _____

Understand place value to 2 digits.

Place Value

Number	Tens	Ones
26		
50		
19		
37		
44		
21		

Tens = ■ Ones = ●

Represent

Extend and Create

--	--

Measure length and time.

Tell Time by the Hour

Inches Measurement

_____ inches

_____ inches

_____ inches

_____ inches

_____ inches

Represent and interpret data.

[illegible]

Reason with shapes and their attributes.

ix

Sample Wixie Templates for 2nd-grade Math

Add and subtract within 20.



[illegible]

6	4	2	8
3	3	5	1
9	1	7	9
+ =			

Gain foundations for multiplication.


1	2	3	4	5	6	7	8	9	10	11	12
1	2	3	4	5	6	7	8	9	10	11	12
2	1	3	4	5	6	7	8	9	10	11	12
2	2	4	6	10	12	14	16	18	20	22	24
3	1	3	5	7	9	11	13	15	17	19	21
3	2	4	6	12	18	24	30	36	42	48	54
4	1	4	12	16	24	32	40	48	56	64	72
4	2	6	18	24	36	48	60	72	84	96	108
5	1	5	10	20	25	30	35	40	45	50	55
5	2	6	15	24	30	36	42	48	54	60	66
6	1	6	12	18	24	30	36	42	48	54	60
6	2	12	18	24	36	48	60	72	84	96	108
7	1	7	14	21	28	35	42	49	56	63	70
7	2	14	21	28	42	49	56	63	70	77	84
8	1	8	16	24	32	40	48	56	64	72	80
8	2	16	24	32	48	64	80	96	112	128	144
9	1	9	18	27	36	45	54	63	72	81	90
9	2	18	27	36	54	72	90	108	126	144	162
10	1	10	20	30	40	50	60	70	80	90	100
10	2	20	30	40	60	80	100	120	140	160	180
11	1	11	22	33	44	55	66	77	88	99	110
11	2	22	33	44	66	88	110	132	154	176	198
12	1	12	24	36	48	60	72	84	96	108	120
12	2	24	36	48	72	96	120	144	168	192	216

[illegible]

<p>Multiplication</p> <p>Show commutative property</p>	<p>$4 \times 5 = 5 \times 4$</p>	<p>Show with repeated addition</p> <p>$5 + 5 + 5 + 5$</p>
<p>$4 \times 5 = 20$</p>	<p>$4 \times 5 = 20$</p>	
<p>$4 \times 5 = 20$</p>	<p>$4 \times 5 = 20$</p>	

Understand place value to 3 digits.

Addition
Understanding Place Value



$$217 + 86 =$$

Number	Hundreds	Tens	Ones
374			
96			
164			
302			
811			
283			

Place Value

Hundreds =









Tens =




















































































































Ones =

Place Value	Hundreds	Tens	Ones

Measure length, money, and time.

Inches Measurement

Telling Time by the minute	
	4:00
	4:15
	4:30
	4:45
	5:00
	5:15
	5:30
	5:45

Dollar Challenge		
                                                                                                                   		






Represent and interpret data.

Number Line

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10 11 12

Our Favorite Fruit

Number of children

54321

Reason with shapes and their attributes.

Jungle Gym Geometry





Have you ever seen a jungle gym? It is something children climb on for fun. It is made of lots of different shapes put together. Shapes like squares, rectangles, trapezoids and triangles.

Does your school have a jungle gym you can climb on during recess?

ix

Seeing Shapes

Students learn about 2-dimensional shapes and create a class book identifying these shapes around their school.

Task

Math is just about abstract numbers; math is everywhere in our world. Ask students to help people see math by creating a book that identifies shapes in the world around them.

Engage

Introduce different 2-dimensional shapes to your students by sharing different examples of squares, circles, rectangles, and triangles. Work with them to count the sides and identify them correctly.

Read a story like *The Greedy Triangle* by Marilyn Burns or *The Shape of Me and Other Stuff* by Dr. Seuss to get students thinking about shapes in the world around them.

Ask students to look around your classroom to find objects in your classroom that are a particular shape like a circle or square and to name the shapes that they see.

Older students can identify complex shapes such as rhombuses and trapezoids, 3D shapes, or even acute and obtuse angles.

Create

Take a walk around your classroom, school, or playground looking for additional shapes in the environment. Capture images of the shapes you find with a digital camera or an iPad or tablet.

Collect the images and put them in a single Wixie file. Display the presentation to your students and work together to identify and draw the shapes on it.

You can also assign the Wixie file with the collected images to your students so they can identify the shapes in the pictures.

Have students use paint or drawing tools to identify the shape on the page. Then, have them record their voice identifying the shape and explaining more about it. You may also want to have students describe the shapes location using position words such as on top of, next to, and so on.

Share

Students can go to the File menu and choose Print if you want to hang the images around the room as examples of different shapes students can find in the world around them.

If students created individual pages using Wixie, combine them together using the Import Pages feature. Print copies of the book for students to take home and share with their families. You can even use the booklet style to print 4 to a page and fold. If students have access to tablets or parent's smart phones, export the book as a PDF or an ePub file for easy sharing.

Post the project to your classroom web site so you can share the shapes your students found with a classroom in a different part of the country or world. Exchange books and pictures so you can compare the shapes you have each found and use the comparisons to start a discussion about geography, history, and culture.



Find the complete lesson online

You can find additional resources, assessment ideas, and step-by-step information for this lesson at:

<https://creativeeducator.tech4learning.com/2017/lessons/seeing-shapes>



The 13 Days of Halloween

Students will practice counting through the creation of a Halloween (or any holiday!) counting book.

Task

Goblins are coming, witches are getting out their brooms, and black cats are ready to cross your path. It must be close to Halloween! As part of a Halloween celebration, practice your counting skills and create a 13 days of Halloween project.

Engage

Read the **Two Little Witches** by Harriet Ziefert and Simms Taback to help students practice their counting skills, experience a repetitive story form, and get them thinking about objects or characters commonly associated with Halloween.

Work as a class to brainstorm a list of these objects. Write them in a place all students can see.

Next, ask students if anyone knows the “12 Days of Christmas” carol. [Play it](#) so they can all remember or experience it for the first time.

Create

Tell students that they are going to create a similar project, but instead of Christmas, this project will focus on the “13 Days of Halloween.”

For example, “On the fifth day of Halloween, my goblin gave to me 5 witches.”

Explain to students that they will use Wixie to each create a page that includes a specific number of Halloween characters based on the song. Assign each student a specific number.

If your students have their own devices or are technology power users, assign them a template with all 13 days!

The Wixie Templates library includes a file you can quickly assign to students with the text already in place and when students open the assignment, the Image button automatically shows Halloween images.

If your students are new to Wixie, demonstrate how to add objects to a page, type text, and record their voice. You might also ask them to create their own pictures using paint tools.

Have each student choose the Halloween object they wish to count and have a school buddy work with each student to develop their page.



[View this sample online](#)

Share

Use the Import Pages feature in the Wixie menu to combine student work into a single class book. Share the book in its interactive form on a classroom web site or present it from a local computer. You can also export the file as an ePub or PDF to send home with students to read with their families.

Pprint copies of each student’s page as trading cards or comics. Have students cut them out, trade them, and then work to put them in the correct sequence to make their own set of Halloween cards to take home.

Find the complete lesson online

You can find additional resources, assessment ideas, and step-by-step information for this lesson at:

https://creativeeducator.tech4learning.com/2012/lessons/The_13_Days_of_Halloween



The Shape of Things

*After reading **The Shape of Things**, students will compose images from shapes, write a sentence to describes their composition, and create their own version of the book.*

Task

The world around you is made of amazing shapes. The clock in your classroom is probably round, but the one by your bed may be a square or rectangle. In this project, you will think of the shapes in objects around you, draw a picture and complete a shape sentence to make your own version of the book.

Engage

Ask students to find shapes around your classroom. While a clock is round and the whiteboard is a rectangle, see if students find shapes that are part of a larger group of shapes.

For example, your pencil sharpener will have a hole where you insert the pencil, but the entire shape of the sharpener may be a rectangle.

Read **The Shape of Things** by Dayle Ann Dodds and Julie Lacome.

Group students together to form small teams. Explain to students that each team member will create a page that includes an illustration made from a combination of shapes.

Find the Shape of Things (circle, square, triangle, etc.) files in Wixie's Templates library and assign different shapes to each team member.

Each student will then complete the following sentence in their template:

A _____ (shape) is just a _____ (same shape) until you add _____. Then it becomes a _____!

For example: A circle is just a circle until you add a hole. Then it becomes a donut.

Create

Demonstrate how to use the Wixie Paint tools and type text. Be sure to demonstrate how to use the shape tool to draw both shape outlines and filled shapes. Post the words for common shapes so that students can easily see how to spell them.

Have students start by using the image already on the page and add details to transform it into a special character, object, or location. If your students are limited by the template, show them how to use the

Eraser tool to they can draw their own shape.

Be sure to have each student record their voice reading their sentences. Then, use the Import Pages feature in Wixie to combine individual student pages into team, or even class, book.

Share

Print a copy of the book so that students can read and share with their families. You can also export the book as a PDF or ePub file to share as an digital book. These can include sound and are a prized keepsake for student families.

Share this version from your classroom web site or present it from a local computer.

Find the complete lesson online

You can find additional resources, assessment ideas, and step-by-step information for this lesson at:

https://creativeeducator.tech4learning.com/2012/lessons/Shape_of_Things



A circle is just a circle until you add a hole and sprinkle. Then it becomes a donut.



Simple Surveys and Great Graphs

Students create and complete surveys, graph the data, and share the results with an audience

Task

While young students may not be having sophisticated conversations about data yet, they are hearing statistics and numbers on television, radio, and adult conversations.

In this lesson, students work in teams to survey their classmates and create bar graphs of the data.

Engage

A bar graph is a simple way to present data to someone in a way that makes it easy to understand.

Explore an example of a bar graph. See if students can already “read” it and answer questions like:

- What is this graph about?
- Which is the most popular option?
- Which is the least popular option?

Next, introduce your students to the concept of a survey. Read a story like Tally O’Malley by Stuart J. Murphy to get students thinking about using tally marks to collect data.

Create a two- or three-option survey and have students come up individually to make their tally mark.

You can easily create this survey in your Wixie teacher account. Then you can open it on an interactive white board and when students come into class have them make a tally mark as a bell ringer activity.

Take the information from the survey you created and show students how to create a bar chart to show the information. You can use chart paper with grid lines or create one from a Wixie template.

Create

Let students know that they will be working in small teams to create their own survey and collect data they will display in a bar graph.

Ask students to come up with some of their own ideas and create a list everyone can see.

Group students together by interest in a topic.

Assign each team the “tally”ave them create a survey they can use to collect data in the form of tally marks. Next, have them collect data from each student in the class.

While students should create and

collect survey data as a team, if you assign the bar graph template to each student, it will be easier to assess individual understanding.

Share

Once individual graphs are complete, have each student print their bar graph and share it with the rest of their group. Have students work together to explore each of their graphs and ask and answer questions about the data similar to those you asked in the initial graph discussion.

Find the complete lesson online

You can find additional resources, assessment ideas, and step-by-step information for this lesson at:

https://creativeeducator.tech4learning.com/2012/lessons/Shape_of_Things

