count · play · explore

DISCOVER THE POWER OF MATH

Early math activities for you and your child to enjoy together.

Babies Count - Count with your baby by pointing out small quantities of objects when you read simple stories together. "Here are two children and one dog."

Toddlers Count - Ask your toddler counting questions. "How many fingers are on one hand?" Count them together.

Preschoolers Count - Build a structure with boxes that is the same height as your child. Count the number of boxes that you and your child used.

Kindergarteners Count - Draw a blank 100 grid (10 rows by 10 columns) or print one https://bit.ly/3dQTjvE. Ask your child to fill in the numbers from 1 to 100. Talk about patterns in the rows and columns to help figure out what comes next.

Grade School Kids Count - Draw a clock face and cut out hands for the clock from a piece of paper. Ask your child to show you on the clock face the typical time for different daily activities: breakfast, lunch, dinner, bath time, bedtime, etc.

Babies Play - Play with cups with your baby. Help them stack, count, and sort.

Toddlers Play - While playing with toy vehicles, have a race to see who can slide the vehicle forward the farthest. Measure the distance in steps!

Preschoolers Play - Play with paper chains. Use different colored paper to make paper loops and connect them. Link the loops so they make a repeating pattern.

Kindergarteners Play - Play Builder's Paradise. Lay the four 7 cards side by side. Take turns playing a card one higher or one lower of the same suit. Full instructions can be found here: https://bit.lv/37EpWvw.

Grade School Kids Play - Play with palindromes: words, phrases, or numbers that read the same forward or backward. 'Racecar' is a palindrome, so is '81618'. Challenge your child to find a number, word, or phrase that is a palindrome.

Babies Explore - Have your baby look in a mirror, point out that they have two eyes, two arms, two ears. Let them explore their reflection.

Toddlers Explore - Give your child a puzzle with large pieces. Let them explore how the puzzle pieces fit together.

Preschoolers Explore - Explore with ramps. Make a ramp with a piece of cardboard and a box. Put one end of the cardboard on top of the box so one side is higher. Find out what will and will not roll down your ramp.

Kindergarteners Explore - Explore colors with water and food coloring. Make new colors by combining two or more colors. Which two colors combine to make purple?

Grade School Kids Explore - Explore measurement. Measure your child's height. Have your child measure other family members. How do their heights compare?



STEM FAMILY ACTIVITIES

for independent learning



SINK OR FLOAT



Activity:

Gather small items around your house that you think might sink or float when put in water. Make sure the items won't be ruined if put in water. Examples of items to collect: paper clip, pencil, penny, bouncy ball, rubber band, crayon, rock, leaf, bottle cap, etc.

2. Get a large bowl and have an adult help you fill it with water. Before putting each object in the water, make a PREDICTION: Will the object sink or float?

Now TEST each object by placing it carefully, one at a time, on top of the water. Record the RESULTS: The object sank, or it floated.

3. Were your predictions correct? Look at the objects that floated – What did these objects have in common? What was similar about the objects that sank? What questions do you have about the experiment?

5. Build a boat that floats!

Each family member will design and create a boat using a piece of foil. Test each boat in the large bowl of water. For some additional fun, have a competition to see how many pennies each boat can hold. The boat that holds the most pennies is the winner. Can you redesign your boat so that it holds more pennies the second time you test it?

Optional Technology Connections:

Read—aloud of the book "Who Sank the Boat?" tinyurl.com/boatsank



Play this online game: tinyurl.com/gamesinnkorfloat

Use this information to log in to BrainPopJr:

Username: FCSSscience Password: FCSSscience20

Watch this video to understand why some things sink and some float.

tinyurl.com/scishowsink

Try this: Build a boat from paper tinyurl.com/boatofpaper



Optional: Go to this link to print a "STEM journal" to record your observations and questions.



fresno county superintendent of schools

For more resources or support, contact
Jon Dueck, FCSS STEM Direction — jdueck@fcoe.org
or visit our website: stem.fcoe.org