



5555 Zoo Boulevard
Wichita, KS 67212
316.660.WILD

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S.T.E.A.M. with Water

Choose a square • Complete the activity • Check it off

Use this chart however works best for your family. If you need to have daily tasks, follow the calendar. If you want to do a Wednesday activity on Monday, that is perfect too. Activities are perfect for preschool through high school and will help get all students out of the house. Have them take photos of their creations and share the photos with others.

The photos can also be a good evaluation tool for parents who are not working from home.

| Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|
| Fill a clear bottle with water. Can you pour it into another cup without spilling? How about something with a smaller opening? Keep experimenting. | Put an inch or two of water in a large pan. Add some ice cubes. Using only your toes, remove all of the ice cubes from the water. Bbbrrrrr....good luck! | Put water in an ice cube tray or bowl. Place it in the freezer. Check it every half hour and write down what you observe. How long did it take it to freeze? | Add water to glass jars. Tap the side of the jar gently with a spoon. Listen to the sound. If you add or remove water, does the sound change? Experiment. What did you discover? | Fill a bucket or bowl with warm soapy water. Using a sponge or old cloth, wash your bike and rinse it with the hose. What else can you clean? |
| Get two bowls. Add water to one bowl. Leave the other empty. Move the water from one bowl to the other without picking up either bowl. You can do it! | Use recycled plastic milk jugs. Cut out the bottom to make funnels. Practice using the funnels with water. How is a funnel useful? | Take a walk in the rain or turn on a sprinkler and enjoy the feel of the water. How does water make you feel? | Use a paint brush or roller to paint the driveway or fence with plain water. Can you paint a message before part of it dries? | Write on the sidewalk with chalk. Take the same chalk dip it in water and write again. Does it look the same or different? Happy drawing! |
| Experiment with colors and mixing colors. Use plastic bottles, water and food coloring. Add food coloring to the water and then mix different colors of water together. | Get 3 pieces of ice from your freezer. Place each one in a cup. Place one in the sun, one in the shade, and one in the refrigerator. Check often and record what happens. | Use a permanent marker to write letters on sponges. Put the sponges in a bucket or pail of water. Retrieve sponges and identify letters or make words with the letters. | Use two bottles or bowls. Add a little dirt to one and a little sand to the other. Add water and stir. What happens? Do they both look the same? What happens when you stop stirring? | To learn more about the importance of water visit www.discoverwater.org Spend some time exploring the games and videos. |
| Use aluminum foil. Fold up the sides so it will hold water. Can you make a river or lake? How about a waterfall? Add water and have fun. | Make a list of ways people and animals use water. Why do you think clean water is important? | Add paper clips to a jar of water. Remove the paper clips by using a magnet. Were you successful? Try again. Is it easier the second time? | Collect a variety of items that will not be ruined by water. Place them one at a time in a bowl of water. What sinks and what floats? Make a list. | Put water in a large bowl or container. Add a few drops of dishwashing liquid. Stir. Try using a whisk from your kitchen. What happened? |
| Fill recycled plastic bottles with colored water and replace lids. Stack bottles in a pyramid. Throw a bean bag or ball at the bottles. How many fell over? Repeat. | Spend some time watering the plants in your yard. What happens if plants do not get enough water? Can they get too much water? | Just like people need water, so do animals. Place a small container of water in your yard for the birds, toads, and other animals. Remember to refresh it each day! | Recycle old glue bottles or dishwashing liquid bottles as water squirters. Wash them out. Add water. Squirt at targets! | Use the your recycled water squirters and challenge a parent or sibling to see who can squirt water the farthest, the highest, the longest, etc. |



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Kansas College and Career Readiness Science Standards

| Grade | KCCRSS | Description |
|---------------|------------|---|
| Kindergarten | K-PS2-1 | Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object. |
| | K-PS3-2 | Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area. |
| First | 1-PS4-1 | Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate. |
| | 1-PS4-3 | Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light. |
| Second | 2-PS1-1 | Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties. |
| | 2-PS1-3 | Make observation to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object. |
| | 2-ESS2-1 | Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land. |
| Third | 3-PS2-1 | Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object. |
| Fourth | *4-ESS3-1 | Obtain and combine information to describe that energy and fuels and derived from natural resources and their uses affect the environment. |
| Fifth | 5-PS1-3 | Make observations and measurements to identify materials based on their properties |
| Third-Fifth | 3-5-ETS1-1 | Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, and cost. |
| Middle School | *MS-PS2-2 | Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object |
| | *MS-ETS1-3 | Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success. |

* Additional activity/discussion required.