Water Wonder Experiment Ideas

Google 'water experiments for kids', follow the directions or links below, check out science experiment books from the library or design your own activities to explore something you wonder about with water.

Candle in Water
Supplies: tea light candle, glass, bowl of water, food coloring (optional), matches*
*adult supervision required
Instructions: Put about a half inch of water into a bowl or tray. Add food coloring to the water if you like. Set a tea light candle in the water and light it.* Cover the candle with a glass, setting it in the bowl of water. Now watch what happens! https://littlebinsforlittlehands.com/science-candle/

Celery Experiment
Supplies: Celery Stalks (choose as many as you like to color and one extra if you choose to set up a science experiment (one in no water, one in non-colored water too) with leaves, food coloring, jars, water
Instructions: Start with nice crisp celery. Cut the bottoms of the celery off so that you have a fresh cut. (You could try it with carnations instead: color changing carnations experiment) Fill the containers at least half-way with water and add food coloring. The more food color, the sooner you'll see results. 15-20 drops at least. Add the celery sticks to the water. Wait 2 to 24 hours. Make sure to observe the process at regular intervals to note the progress. Older kids can make drawings and journal their observations throughout the experiment. Notice how the food coloring moves through the celery's leaves! Water is making its way through the cells of the celery as indicated by the color. https://littlebinsforlittlehands.com/celery-osmosis-science-experiment/

How Many Drops of Water on a Penny

All you need for this experiment are a few coins, an eye dropper, straw or pipette, and water! How many drops fit on the surface of a penny? What else could you use? A bottle cap turned over, a flat LEGO piece, or another small and smooth flat surface! Take a guess at how many drops it will take and then test it out.

Investigate Ways to Make Crystals (look online or in a science book for instructions)
https://learning-center.homesciencetools.com/article/crystal-growing-science/

Freezing Water
Supplies: 2 bowls, water, salt, spoon
Instructions: Label the bowls "Bowl 1" and "Bowl 2". Measure out 4 cups of water for each bowl. Add 2 tablespoons of salt to bowl 2, a little at a time, stirring as you go. Place both bowls in the freezer, check the bowls after an hour to see how they have changed. Optional – use a thermometer to measure the water in both bowls. Recheck them after 24 hours. What do you notice?

Sink or Float
Supplies and Instructions: Use items straight out of the kitchen for this sink float water science activity: different fruits and vegetables, aluminum foil, aluminum cans, spoons (both plastic and metal), sponges, anything you want to explore. Then see… do they sink or do they float?
Tip: You could also test peeling your vegetables or slicing them. Plus have your child come up with other fun things to test! Have them test a collection of their own items too! This also makes a fun bath time activity (just don't use food items :)

What Makes Ice Melt Faster?
Supplies: Ice cubes, muffin tin, jars, or containers, various solids. You can start with salt and sugar, but also include different types of salt, baking soda, sand or dirt etc., Stopwatch or clock to determine the time of the experiment
Instructions: Add 4-5 ice cubes to 6 cupcake cups. Make sure the same amount of ice is in each one. **Add 3 tablespoons of each solid to a separate container of ice.** Add 3 tablespoons of baking soda to cup #1. Add 3 tablespoons of salt to cup #2. Add 3 tablespoons of sand to cup #3. Cup #4, cup #5 and cup #6 are your controls and will have nothing added to the ice. Set the timer to check back on the ice cubes every 10 minutes over 1/2 hour and record your results. Then draw your conclusions. What caused the ice to melt fastest?
EXTENSION: Use a timer and record how long it took each material to melt the ice. Record the results. Try adding solids of your own choice and record that data too. Now, turn the data into a graph! Check out this and other ice experiments: https://littlebinsforlittlehands.com/what-makes-ice-melt-faster/

Water Cycle in a Bag
Supplies: Water cycle template from link below (or just draw sun (evaporation), clouds (condensation), rain drops (precipitation) and river (freshwater) on your bag with a permanent marker), zip top bag, water, blue food coloring, markers, tape
Instructions: Print out and color the water cycle worksheet. Cut the water cycle diagram out and tape it to the back of a zip top plastic bag. Or in not using the template draw on your bag with markers. Mix 1/4 cup of water with 2 drops of blue food coloring and pour into the bag and seal. Tape the bag to a sunny window and wait. Check your bag in the morning, mid day, and again at night and record what you see. Did you notice any changes?
https://littlebinsforlittlehands.com/water-cycle-in-a-bag/

Water Displacement
Supplies: 2 different size clear plastic containers {you can use more in varying sizes}, objects to drop in the water (ie a collection of small rocks or stones, those decorative glass stones, anything small that is heavy enough to sink in the water), 1 cup of water for each container, plastic ruler, something to mark water levels (a sharpie or dry erase marker)
Instructions: Make sure to have your kids make a prediction of what will happen to the level of the water before starting the experiment. Measure 1 cup of water into each container being used. Mark a line on the container with a sharpie to show the current level of the water. Use a ruler to measure and record the height of the water. Begin dropping objects into the water. Try not to splash water out of the container as this will alter the results a bit. Once all of your objects have been added, mark a new line for the new level of water. Use the ruler again to measure the change in levels from the starting mark to the ending mark. Record your measurements. Dry the hearts and start over again with the next container. Talk about what happened. Were the predictions correct? Why or why not? What was different or the same between the containers?

Water Xylophone
Supplies: water, food coloring (we used blue, yellow and green for varying shades of green), wooden sticks (we used bamboo skewers), 4+ mason jars
Instructions: To get started, fill the jars with varying levels of water. You can eyeball the amounts or grab the measuring cups and get a little more scientific with your exploration. More water equals lower sound or pitch and less water equals a higher sound or pitch. You can then add food coloring to make different colors for each note. We made our jars pure green, dark green, blue-green, and yellow-green! Make sure to have your kids tap the empty jars first to get an idea of the starting sound! Have them predict what will happen when they add water. They can also create a hypothesis surrounding what happens when more or less water is added.

https://littlebinsforlittlehands.com/water-xylophone-sound-science-experiment-kids/

Walking Water
Supplies: Water, clear plastic cups or mason jars, food coloring, paper towels, stirrer, scissors, timer (optional)
Instructions: You can set up as many or as few jars as you like for this part. We used 9 test tubes of primary colors (3 x red, 3 x yellow, 3 x blue). We added red, yellow, and blue food coloring (one color per test tube) in a pattern. Give each test tube (or glass or cup) a little stir to evenly distribute the color. Try to put the same amount of food coloring in each container! Cut thin strips of paper towel to fit in the test tubes. If you are using glasses or cups, you can judge the best size strip to fit what you are using. Place the paper towel strips into the test tubes. There will be two ends in each tube. Wait and watch what happens. At this point, you can set up a stopwatch to make note of how long it takes for the colors to meet and mix.

What Dissolves in Water
Supplies: 5 different powders (Sugar, Salt, Gelatin powder, Flour, Pepper. What else can you find to use?), 5 clear jars, water, stirrers
Instructions: Start by talking about what you think will happen when you add water to your jars. Then you want to heat the water so it is warm. This makes the experiment happen a bit faster. (Alternatively, try the experiment with cold water and then warm water, and note the differences.) Add one tablespoon of each material to each jar. Next, pour 1 cup of warm water into each jar. A good scientist carefully measures so that all variables but one are the same. Lastly, you want to give each jar a stir and then wait 60 seconds. I love having a kid-friendly stopwatch on hand for these activities.Once the time is up, your kids can determine which materials dissolved in the water and which didn't. Were they correct? Did they need to change their answers? What do your results show you? Can you pick out which one are homogeneous mixtures? It might just seem like you are making a bit of a mess, but you are actually experimenting with an important concept in chemistry called solutions. By mixing these solids (solutes) with a liquid (solvent), you may or may not have created solutions.
https://littlebinsforlittlehands.com/which-solids-dissolve-in-water-chemistry/

What Absorbs Water
Possible Supplies/Materials: (Feel free to substitute materials for whatever you have available.) Sponge, styrofoam tray, napkin, wax paper, sock, zip lock bag, paper towel, sandwich wrap, construction paper, aluminum foil, cotton balls, a bowl of colored water (better to observe with colored water) and an eye dropper or straw.
Instructions: First think about which materials might absorb the water and which might repel the water. Make your predictions! Carefully fill the eye dropper (or straw) and then squeeze some water onto each material. As each item is tested with the water, ask: Did it absorb the water? Did it not absorb the water? We can say that absorption is when something takes in another substance. Materials that absorb water include; sponge, napkin, paper towel, face cloth, sock, paper, cotton balls. Materials that don't absorb water include; Styrofoam, zip lock bag, wax paper, aluminum foil, sandwich wrap. What other materials can be tested? Can you find something surprising that absorbs water? What do the materials that absorb water have in common?