

# Family Advent Activities

During each week of Advent,  
families can engage  
in Science experiments

all about ***BREAKING POINTS!***



A **BREAKING POINT** is the moment  
of greatest strain  
at which someone  
or something gives way.

In our Science experiments, keep your eyes open and watch for the breaking point moment when everything changes.

Family devotion to go along with experiments:

We have breaking points too! All of us: our teachers, our parents, our friends, and even you! Sometimes we think things are going to go a certain way and then they don't, and we get upset really quickly.

Sometimes hard things just keep happening. We try to act really cool.

We try to hold our frustration in, but then we get to a breaking point.

It may take a longer to get to our breaking point, but it still happens.

Maybe we yell at our sister.

Maybe we give up trying to do well in our Math class.

Maybe it doesn't feel like God is hearing our prayers.

**BUT** when we reach our breaking point, God does not leave us.

He stays with us. Repairs us. We may not look exactly like we did before.

We may not think exactly like we did before. But God works to heal us.

In the experiment that you will do, the broken ice, comes back together.

It is repaired. It doesn't look the same, but it still has a purpose.

God always has a special purpose for us too.

After we've had a breaking point, we know exactly what it feels like.

God can use you to be with others when they are going through hard times too and remind them how much God loves them and is with them.

**Week of November 29<sup>th</sup>**



## **BUBBLY ICE**

Using vinegar and baking soda, you can show kids how to make carbonic acid, which later breaks to water and carbon dioxide gas. The dish soap will keep the carbonic acid for a fizzy effect. You will need some dish soap, baking soda, vinegar, ice and food coloring.

- Put the ice cubes in a Tupperware container and cover them with dish soap, food coloring, and baking soda.
- Use a dropper to pour small amounts of vinegar on top of the ice

When vinegar touches the banking soda, they react to produce carbonic acid. This unstable acid falls apart and gives out carbon dioxide which causes the bubbly goodness.

**Week of December 6<sup>th</sup>**



## **MAGIC EGG WALK**

Kid already know that eggs are easy to break. But using this activity, you can make them magically walk on eggs.

- Line up several cartons of egg creating a short path
- Ask kids to walk slowly without pushing their heels too hard

Kids will be able to walk on eggs without breaking them, but every egg smashed will result in good laughs. Explain that the curved shape of eggs distributes the pressure evenly.

Week of December 13<sup>th</sup>



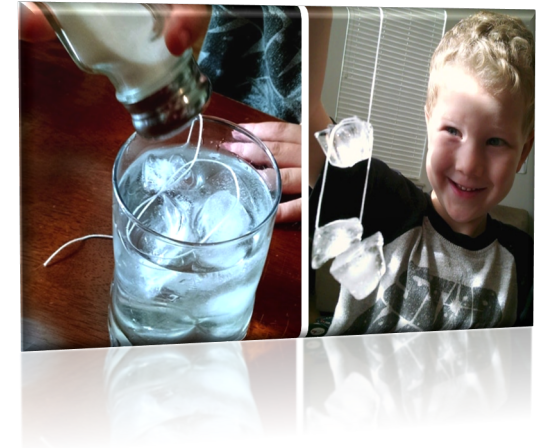
## UNDERWATER VOLCANO

Show kids a cool explosion to keep them busy and teach them about changes in density.

- Fill a large container with cold water and a smaller one with hot water.
- Place a rock at the bottom of the small one.
- Add some food coloring to the hot water container and carefully put it into the larger one.
- Watch and observe the cool eruption.

Hot water molecules move fast forcing the food coloring to the top.

Week of December 20<sup>th</sup>



## ICE CUBES FISHING

You can use this cool winter science experiment to explain the effects that salt has on cold things (like ice).

- Go grab a glass and fill it with water.
- Put a handful of ice cubes in it too.
- Then find some string and try to have them catch the ice with it.

Hint: they won't be able to catch anything!

- Now sprinkle some salt on the ice cubes and have them try to fish one more time.

The salt causes the ice to melt, but it freezes again trapping the string.