

Climbing Water Grades JK-2

What kid doesn't love mixing colours together? This activity will allow students to observe water absorption in action combined with colour mixing.

Materials

- Test tubes (large plastic ones) or jars or glasses of the same size
- Water
- Food colouring
- Paper towels
- Scissors
- Spoon or other stirring device
- Stopwatch (optional)

Activity Location

- This activity works best in a location where messes can be made! It probably shouldn't be done in a carpeted room and it would be ideal to have access to a sink during the activity.

Action

- 1. Set up stations for the students with several test tubes (or jars or glasses) filled half full of water.
- 2. Have the students select the colours of food colouring they would like to experiment with.
- 3. If the students are able, have them cut strips of paper towel (if not, have this prepped in advance)
- 4. Ask the students to make a hypothesis about what will happen if we put a strip of paper towel into the water. Show the students what happens.
- 5. Now ask the students what will happen if they put one end of the strip of paper towel into one tube and the other end into another tube? Have them place their strip of paper towel in their own test tubes.
- 6. They can time their climbing water as an additional activity (how long does it take for the water to climb up the paper towel and meet the other colour?).

Conclusion/Wrap up

As an extension activity, get the students to put one colour of food colouring into one tube (tube A) and a different colour into the other tube (tube B). Have them place a strip of paper towel with one end into tube A and the other end into an empty tube placed between A&B. Take a second strip of paper towel and place one end into tube B and the other end into the empty tube. Have them observe what

happens!



Water has an incredible property called "adhesion." This basically means that water molecules are very "sticky." They like to stick to each other (adhesion) and they like to stick to porous materials (absorption). The coloured water is absorbed into the paper towel and the water molecules pull each other up the towel. As each molecule moves into the dry part of the towel, it pulls another along with it, and so on. This is how water "climbs" the paper towel and it gives the students a great opportunity to see colour mixing in action.