



Celery Food Colouring

About CHaOS

Cambridge Hands-On Science - CHaOS for short - is a volunteer led group from the University of Cambridge.

We believe that science is fun and relevant to everyone! CHaOS take our wide range of hands-on science experiments & enthusiastic student demonstrators to venues across the country!

We always love to hear what you think of our experiments - so to get in touch, find even more experiments, and see more of what we do, visit our website!



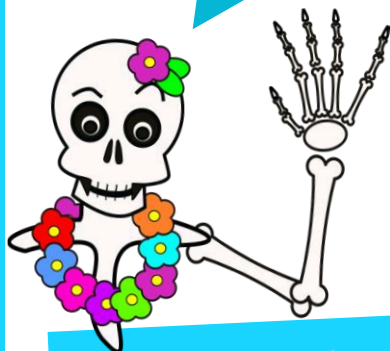
www.chaoscience.org.uk

Disclaimer

This experiments should only be carried out **under supervision of a responsible adult**.

Teachers should perform a risk assessment before use.

I'm Boris Bones, the friendly CHaOS skeleton. I'm going to guide you through this experiment!



YOU'LL NEED

- Celery sticks
- A Knife
- Drinking glasses
- Food colouring

Watch water move up through a celery stalk by dyeing it different colours!

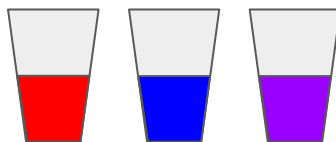


SAFETY

Ask an adult to trim the celery sticks for you. Using a knife can cause **cuts** if care is not taken. Be careful of **spills** - wipe them up straight away to avoid **slippages**.

Step 1

Half fill each glass with water. Add three drops of food colouring to each glass so they are all different colours.

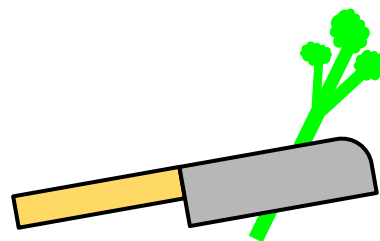


Which colour do you think will be absorbed the best?

Write down your observations. What happens to the colour of the celery? What about the water level?

Step 2

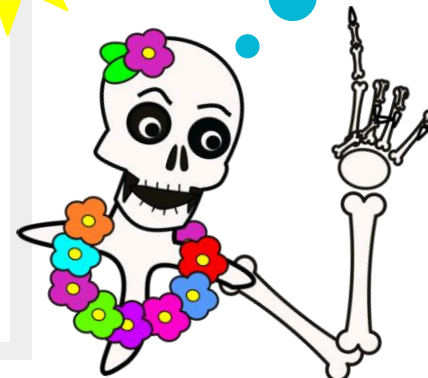
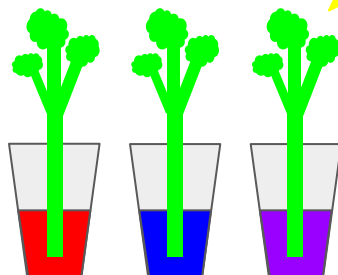
Trim the ends of the celery sticks, then place one stick in each glass.



Once you have finished the experiment, try tearing a celery stick in half to see what's happening inside.

Step 3

Leave the glasses in the sun. Come back every few hours to check what's happening!



Explanation

All cells in a plant need water. When you put a celery stick in a glass of water, it starts sucking the water up through its stalk and into its leaves.

The water moves up through a tube called the xylem. Water molecules stick to each other, and to the sides of the xylem. When water evaporates from the leaves of the celery, it pulls up the water molecules behind it in one long chain, drawing water up from the glass into the stem. The food colouring, which is in the water, also gets sucked up by the celery, changing its colour.

Try cutting a celery stick lengthways until you get halfway up the stalk. Place each half of the stalk in different glasses. What colour do you think the leaves will turn?

Want more?

Check out more colourful experiments using vegetables in “Red Cabbage”!

Or find out why the sunset appears different colours with “Make Your Own Sunset”!

