

BEAVERS



WEST DEVON BADGES AT HOME : EXPERIMENT BADGE

Do three experiments. Before you try them, what do you think might happen?

After you do your experiments, tell us what you saw and discovered. Try to explain why it happened.

westdevonscouts.org.uk

 West Devon Scouts



How to complete your badge:

Complete three of the experiments below. Before you do them think about what might happen.

Provide evidence of the experiments you have performed and what you think was happening.

Please do not go out specifically to get any materials necessary for the experiments.

How can you make a raisin dance?

- **You will need:**
 - **Pint size clear plastic cup**
 - **Fizzy pop**
 - **Raisins**
- **Instructions:**
 - **Put some raisins into a glass or clear plastic cup of fizzy pop. Watch the raisins.**
 - **How many times do the raisins rise in 30 seconds?**

How can you use salt to make an egg float?

- **You will need:**
 - **Pint size clear plastic cup**
 - **1 egg**
 - **Teaspoon**
 - **Salt**
 - **Water**
- **Instructions:**
 - **Three quarters fill the cup with water.**
 - **Carefully place the egg into the bottom of the cup.**
 - **Add flat teaspoons of salt until the egg floats.**
 - **How many teaspoons do you think it will take?**

Absorbing Science

- **You will need:**
 - **Clear container**
 - **Paper towel**
 - **Coloured pens**
 - **Water**
- **Instructions:**
 - **Make some dots on the paper towel using the coloured pens in a line about 2 fingers from the bottom of the sheet.**
 - **Fold the top of the paper towel over the container so the dots are inside the container but not resting on the bottom.**
 - **Slowly pour some water in until it is just over the bottom of the paper towel.**

Straw through potato

- **You will need:**
 - **Strong straws**
 - **Potato**
- **Instructions:**
 - **Try stabbing a potato with a straw without bending or breaking the straw.**
 - **Now try this:**
 - **As you hold the potato, keep your fingers on the front and thumb on the back and not on the top and bottom. You don't want to stab yourself!**
 - **Grab the straw with your writing hand and put your thumb over the end as you hold it.**
 - **Hold on firmly to both the straw and the potato and with a quick, sharp stab, drive the straw into the spud.**

The paralysed finger

- **Instructions:**
 - **Bend your middle finger and place the centre section on a table or hard surface.**
 - **You will be able to lift your thumb, index, and little finger without moving your middle finger. But it is impossible to lift your ring finger.**

Confuse your legs

- **Instructions**
 - **Lift your right foot a few inches from the floor and then begin to move it in a clockwise direction.**
 - **While you're doing this, use your right index finger to draw a number 6 in the air.**
 - **Your foot will turn in an anticlockwise direction and there's nothing you can do about it!**

Build a Fizz Inflater (do this one outside!)

- **You will need:**
 - **One small empty plastic soda or water bottle**
 - **1/2 cup of vinegar**
 - **Small balloon**
 - **Baking soda**
 - **Funnel or piece of paper**
- **Instructions:**
 - **Carefully pour the vinegar into the bottle.**
 - **This is the tricky part: Loosen up the balloon by stretching it a few times and then use the funnel to fill it a bit more than half way with baking soda. If you don't have a funnel you can make one using the paper and some tape.**
 - **Now carefully put the neck of the balloon all the way over the neck of the bottle without letting any baking soda into the bottle.**

- **Lift the balloon up so that the baking soda falls from the balloon into the bottle and mixes with the vinegar.**
- **Watch the fizz-inflator at work!**

Diet Coke & Mentos (do this one outside!)

- **You will need:**
 - **A bottle of diet coke**
 - **Some mentos**
 - **Some sort of funnel**
- **Instructions:**
 - **Place the open coke bottle on the ground.**
 - **Place the funnel in the neck of the bottle.**
 - **Drop some mentos into the funnel.**
 - **Quickly get away from the bottle!**

Explanations of what is happening can be found here:

<https://www.onlinescoutmanager.co.uk/programme.php?action=view&id=27542>

Three of the experiments must be completed to achieve the badge.

Complete three of the experiments and provide evidence.

Use the box below to write how your prediction compared to the actual result:

Experiment 1 :

Experiment 2 :

Experiment 3 :

Once you have completed your challenge, upload this completed form and your designs to Online Scout Manager under 'Badges' and click the Experiment Activity Badge. Then click 'Complete at Home' and submit your evidence.

Good Luck!