AN ALTERNATIVE ESCAPE

Imagine if the magic beans had encountered something other than the peach tree. What else might James and his insect friends have escaped on? Read the below for some top tips on what floats and why, and then have a look around your house and test some different contenders. Using sheet two write down your methodology and findings and have to hand for future floatation fun.
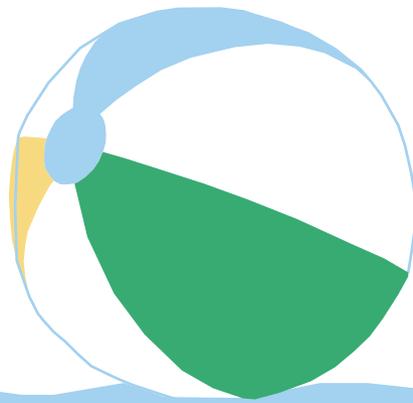
WHY DO THINGS FLOAT?

WHEN SOMETHING IS IN THE WATER, **TWO KEY FORCES** ARE ACTING UPON IT.

THESE ARE ITS **WEIGHT** AND THE **FORCE OF THE WATER** ITSELF (OR UPTHRUST), WHICH PUSHES THE OBJECT UP.

IF THE WEIGHT OF THE OBJECT IS **EQUAL TO OR LESS** THAN THE UPTHRUST, THEN IT WILL **FLOAT**.

IF THE WEIGHT OF THE OBJECT IS **MORE THAN** THE UPTHRUST, THEN IT WILL **SINK**.
THIS MEANS THAT **LIGHTER OBJECTS ARE MORE LIKELY TO FLOAT.**

BONUS TIPS

- Hollow objects are more likely to be lighter than solid objects and so are more likely to float.
- Certain materials might be light enough to float but may dissolve or break apart in water. A paper boat for example may float for a short while but the paper will eventually break apart in the water.
- Similarly, some light objects may soak up water (such as sponges), and so may float at first but later sink as the absorbed water adds to the overall weight.

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FEASIBLE FLOATATION DEVICES

Gather your objects, fill your bath tub, sink or a bucket with water and record your predictions and findings in the boxes below - and bear results in mind for when you next need a watertight getaway.

PREDICTION

I predict that _____ will float the best because _____

_____

FAIR TESTING

To make this a fair test I will make sure every object is tested in the exact same way. I will do this by

_____

RESULTS

The object that floated the best and longest was _____

CONCLUSION

I think this was because _____

_____

_____

_____

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