

Science Challenge



Floating and Sinking

Collect a selection of toys or household objects which will not be damaged by being put in water. Choose ones which are different sizes, shapes and made of different materials. (wood, plastic, metal, rubber) Put some water in in a basin or bucket. A clear plastic box is great so that you can see through it.

If you can access it, watch this short video and talk about what you have watched.

<https://www.bbc.co.uk/bitesize/topics/zc89k7h/articles/zytqj6f>

Activity

Sort the items by whether you expect them to float or sink. Talk about what they are made from and their size and shape.

Place them in the water one at a time and observe. You could draw a picture of a large water tank and draw the items into your picture to show where in the water they go.

Sort the items again and talk about which ones you predicted correctly and which ones were trickier to guess.

Next Steps-

Fruit like apples and oranges can give you surprising results. If you have an orange try testing it and then peeling it and test it again. Why do you think this happens?

Make a boat out of the orange peel or some paper or foil. You could use plastic tubs or pots as boats. Try to see how many weights, such as coins or marbles, you can put in your boat before it sinks.

Technology Challenge



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Plastics

Resources

- A selection of plastic bags
- Baking paper sheets
- Pen
- Scissors
- Iron

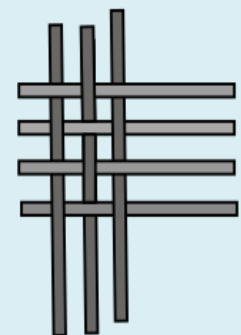
Task

1. Use scissors to cut strips from different coloured plastic bags.
2. Layer, plait or weave the strips to create different shapes or patterns.
3. Place the new plastic material between two baking paper sheets.
4. *Ask an adult for help* - On a medium temperature, iron over the top sheet of baking paper.
5. The plastic strips will melt together to create the new material in one piece.

Challenge

What product could you make using these techniques?

Explore how your new material could be made into a range of products. A tablemat?
A window decoration?



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Engineering Challenge



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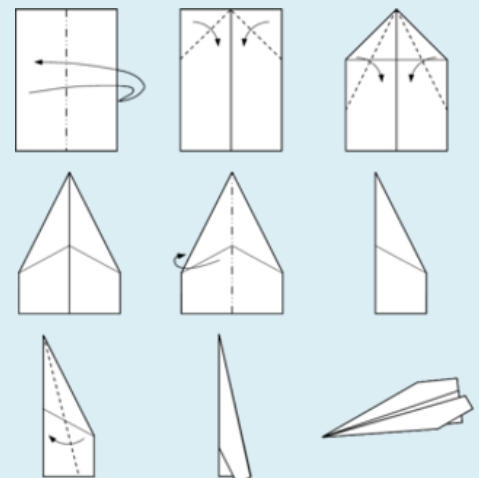
Flying High

Watch: Episode 1 of Amy's Aviation at <https://www.youtube.com/watch?v=vScepc2EjPU> which will help explore the science behind how planes fly and give you some ideas for the challenge.

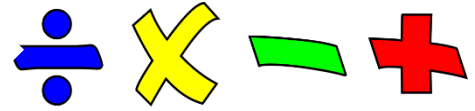
Challenge: Make a paper plane which can carry cargo (pennies) and glide more than 3 metres (about 5 giant steps). A glide does not mean hurl!

Resources: paper, sellotape, pens, pennies

1. First, construct a paper plane – there are basic instructions to follow on the picture below, you can use your own design or have a look at some different patterns online.
2. Then test it – make a target sign and attach it to the top half of a door. Stand three metres away and release your plane. To count as a glide, the plane must hit the target and not land below it! *Safety: Make sure you warn people that you are flying a paper plane!*
3. If it didn't glide to the target, what can you change about your design to improve it?
4. After you have hit the target, attach some coins to the plane – does it still glide as well? Does it matter where you place the coins on the plane? What is the maximum number of pennies it can hold and still glide to the target?



Maths & Numeracy Challenge



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Time on Our Hands

Do you know how many seconds are in a minute? Minutes in an hour, Hours in a day?

<https://primaryclassroomresources.co.uk/products/time-facts-poster?variant=16574207688817>



- If you can access it, Why not listen to this catchy little tune and check <https://youtu.be/NfwMUa6iAds>
- You could play some “Minute to Win it” [games](#) – using a countdown timer app or countdown timer on a device. What can you do in 60seconds/a minute?
- Help the adults at home by keeping track of the time throughout the day - Practice your skills at telling the time by playing these games: <https://bit.ly/39cgJJD>
 - There are 5 levels to work through.



Literacy Challenge



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Talking and Listening with Rhyme

Rhyming Fun!

Remember that rhyming words rhyme because their ending sounds the same, such as **coat-boat**.

They do not need to be spelt the same **head** rhymes with **said** and **Fred**. Words that are spelt the same don't always rhyme **pear** does not rhyme with **clear**.

Share a story book that uses rhyme such as Duck in a Truck by Jez Alborough.

https://www.youtube.com/watch?time_continue=1&v=pEEjSXYk7jl&feature=emb_logo

Did you hear lots of rhyming words?
What can you think of that rhymes with-

1. **book**
2. **back**
3. **down**
4. **do**
5. **goat?**

Now use as many of those words as you can in a wordsearch or hidden word picture. *With some help, you could perhaps do it online using [this website](#).*



Health & Wellbeing Challenge

And relax...

Mindfulness is about focusing on the present, noticing your physical and emotional responses as well as your connection to other people in your surroundings. Try out these mindful activities to slow down and relax.

Have a go at one of the **Cosmic Kids yoga** videos on Youtube:

<https://www.youtube.com/user/CosmicKidsYoga>. They are a combination of yoga, mindfulness and relaxation techniques all in one through different stories.

Try out some of these mindfulness activities;

1. **Sit in a room with your eyes closed.** Ask someone to stand at the other side of the room and spray a small spritz of perfume or deodorant. Keeping your eyes closed, try to notice the exact moment the smell reaches you.
2. **Mindful outdoors walk:** It's good to be mindful of your surroundings and to get fresh air and exercise! Go on an alphabet hunt in your garden or local park. Try to find something beginning with each letter of the alphabet. Create a table or list to keep track of your finds.
3. **Mindfulness colouring.** You can download and print free mindfulness colouring sheets like the ones at this [website](#) or on this [webpage](#).



Social Studies Challenge



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Map Making

Maps give us information about places. They show us where things are and where we can find important features.

Your task is to draw a map (floor plan) of a room in your home to show where everything is. You can draw your map straight on to a piece of paper or you can cut objects out and place them on your map. Walk around your room to check your map and make any changes if you need to.

Share your work with an adult. Can you describe what you have shown on your map?



Expressive Arts Challenge



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Dance Designing



Let's make a Dance routine to get the blood pumping and to have fun.

- Pick your favourite song - or someone else's.
- Choose 6 of the dance moves from the poster above.
- Number them 1 to 6.
 1. Roll a dice (or a [virtual one](https://www.motheigoosetime.com/dance-and-fitness/)) to select a dance move
 2. Roll a dice again to indicate the number of times you repeat the move
 3. Note them down to keep track of your sequence
- Repeat the above steps until you have 8 moves in your sequence. And then string it all together

Optional – Ask someone to video you doing your Dance Routine