Foundation Subjects

Leighterton Primary School

Week 7

Science

SCIENCE FUN AT HOME

Have some fun at home with these science activities from **Science Sparks** and the **Primary Science Teaching Trust**

BEFORE YOU START! Please read through this with an adult:

- Make sure you have read the 'IMPORTANT NOTICE' on the back of this page.
- If you have a space outside that you can use safely, then you can do the 'Try this outdoors' activity outside. Don't worry if not as you could still do it indoors.
- Talk to your adult about sharing the science you have done and if they want to share on social media, please tag **@ScienceSparks** and **@pstt_whyhow** and use **#ScienceFromHome**

SPINNING SCIENCE

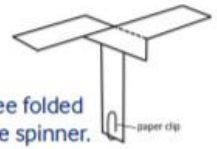
You will need

- paper
- paper clips
- Scissors
- different types of paper or card

1 TRY THIS INDOORS .... MAKE A SPINNER

1. Cut out the spinner - you can download a template **here**.

2. CUT along the solid lines and **FOLD** along the dotted lines.



3. PAPER CLIP the three folded pieces of the tail of the spinner.

4. FOLD the two 'wings' of the spinner in opposite directions. Hold the spinner high up, let go and watch what happens!

5. MAKE more spinners .... you could make different sizes, use different types of paper, use more paper clips or change the length of the wings.

WHAT DO YOU NOTICE? Things to talk about ...

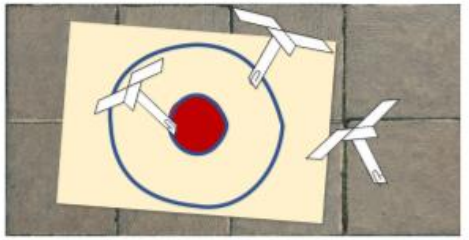
What happens when you let the spinner go? Can you slow the spinner down? How? What happens if you use different sorts of paper? Does tissue paper fall fast or slower than cardboard? What happens when you make the wings longer or shorter? What if you make a giant one? A tiny one?

2 TRY THIS OUTDOORS ....

Take your spinner outside. Make a target on the ground – you could do this by drawing a circle on a large sheet of paper, or you could use a big shallow bowl. Hold your spinner up and drop it, trying to get it to land on your target. Have ten goes and count how many times you hit the target. Try moving the target to a different place outside and see if your score increases or decreases.

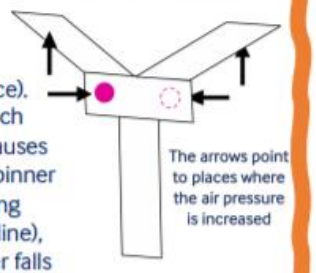
WHAT DO YOU NOTICE? Things to talk about ...

Where outside is it easiest to get the spinner to hit the target? Why do you think that is? What happens if you make the target bigger or smaller?



3 WHAT IS THE SCIENCE?

The paper spinner spins as it falls. When it starts its fall, the air pressure under the wings increases (air resistance). This causes an upward force underneath the wings which slows the spinner down. The increased pressure also causes a sideways push on the vertical part at the top of the spinner (where the pink dot is). The same thing will be happening diagonally opposite under the other wing (dotted pink line), which causes the spinner to spin. The faster the spinner falls the greater the sideways push, and so the more it spins.



4 MORE ACTIVITIES YOU COULD TRY

MAKE A DIFFERENT KIND OF SPINNER! https://www.science-sparks.com/easy-paper-spinners/

MAKE A PARACHUTE AND FIND OUT MORE ABOUT AIR RESISTANCE
https://wowscience.co.uk/resource/blitz-and-bob-parachute/

HAVE A LOOK AT DR CHIP'S WONDER WEDNESDAY - PAPER HELICOPTERS
https://www.youtube.com/watch?v=RurbAsctWrk

TAKE A SCIENCE SELFIE! Maybe you could show other people what you have been doing?

Making a sculpture using recycled materials

Milk Bottle Masks

You will need:

- recycled milk carton which you will need to paint first using ready mixed paint with a little PVA added or
- Opaque washing up liquid or laundry detergent bottles
- Recycled materials such as bottle caps, produce mesh, wine corks, or cardboard
- Recycled items eg bottle tops, tissue paper, sweet wrappers, paper straws, feathers, old tubes, egg boxes, lolly sticks, wool, magazine pictures or old Christmas cards
- Natural materials eg feathers, acorn, leaves, petals etc
- If working without a parent PVA glue or if being supervised by a parent and you have one a hot glue gun

What to do:

Turn the container upside down so the spout is at the bottom and the handle will be the nose
Add eyes – you could cut out these from an egg box, or use bottle tops
Add eyebrows and/or eyelashes
Add a mouth – you could use tubes, bottle tops, cardboard etc
Add hair – you could use perused Christmas ribbon/raffia or feathers, or wool

Artists who use recycled materials:
(All weblinks are provided for parents to view and decide if they wish their child/children to view or use them)

The artist Robert Bradford uses old toys to make sculptures. This web page shows sculptures of dogs:

https://recyclenation.com/2010/12/recycled-toys-dogs/

The Royal Academy has a step-by-step guide by artist Phyllida Barlow using recycled packaging to make a sculpture

https://www.royalacademy.org.uk/article/family-how-to-make-recycled-sculpture-art-kids-phyllida-barlow-sustainable

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R.E.

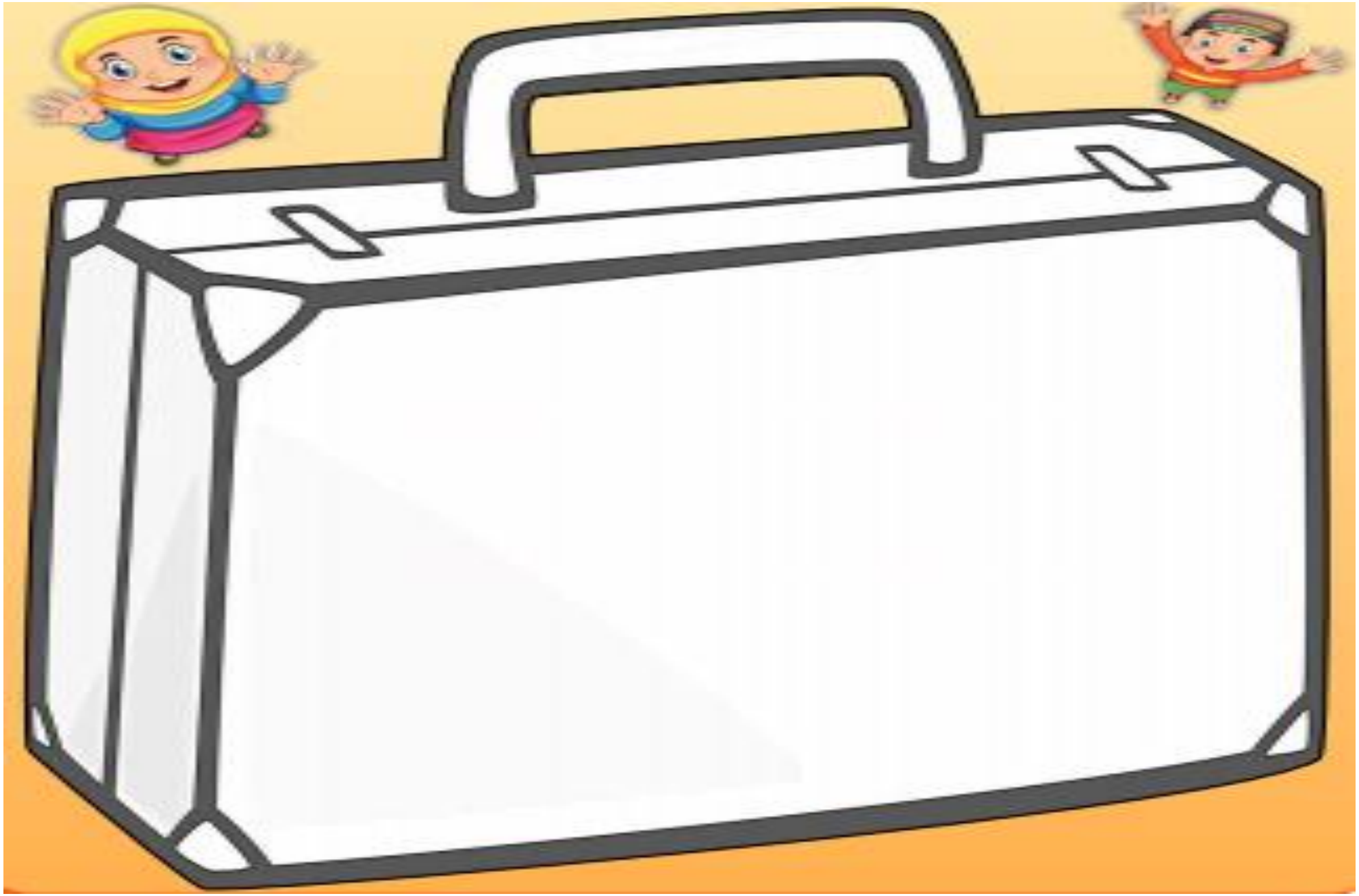
Lesson 6:

LO- To understand the importance of the Hajj for a Muslim person. - To compare your beliefs with those of a Muslim.

Watch this video: https://www.bbc.co.uk/teach/class-clips-video/religious-education-ks2-my-life-my-religion-muslim-pilgrimage-hajj/zndfcqt

KS1 TASK

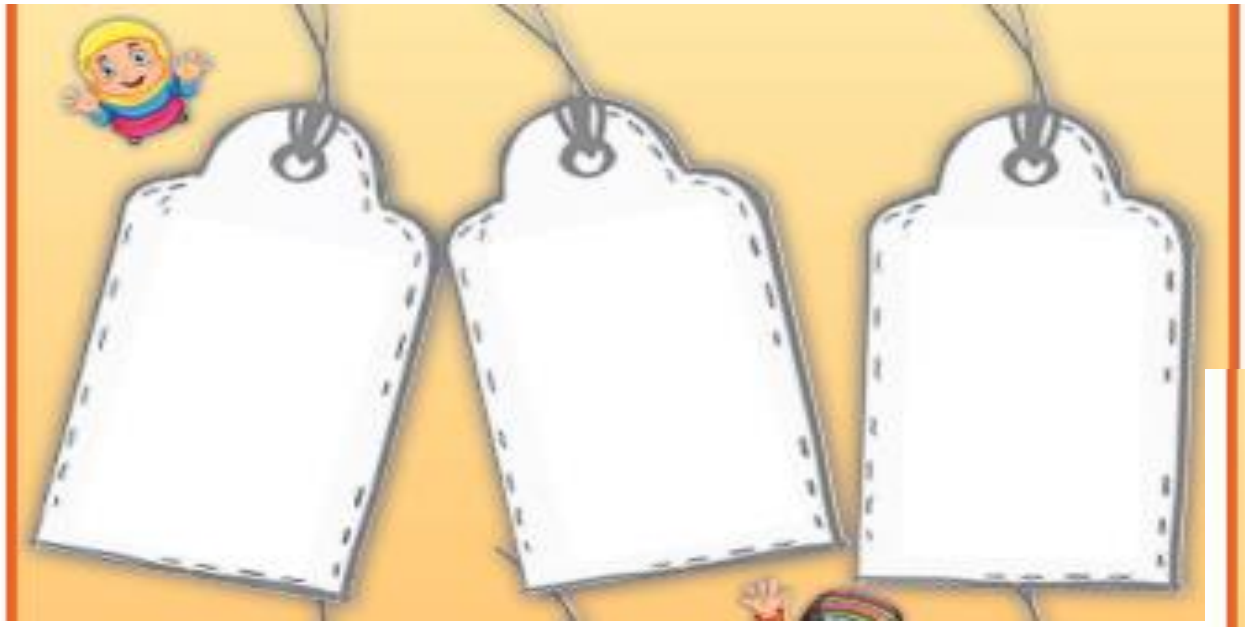
Imagine you are going to make the Hajj journey. What would you take? Draw a suitcase like the one below on a blank piece of paper. Inside the suitcase draw the items that you would take with you on the journey.



KS2 TASK

Name: _____ Date: _____

Imagine you are going to make the Hajj journey. How would you feel?
On the travel tags below write about three things you would be worried about and three things you would be excited about before making the Hajj.



PSHE – The Oak National Academy

KS1

https://classroom.thenational.academy/units/its-ok-not-to-be-ok-5ada

Lesson 6 – Keep calm and carry on

KS2

https://classroom.thenational.academy/units/all-around-me-cd61

Lesson 6 – I have a dream

Friday

Design and make a glider

WHAT MATERIALS TO USE

You can use cardboard, plastic, wood, or anything else that works well and you can get at home.

Try looking in your recycling box.

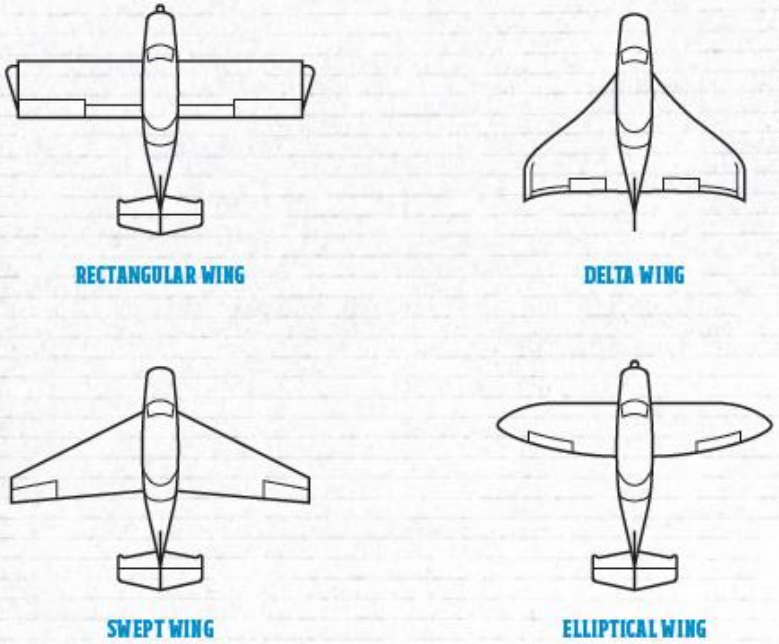
HERE'S WHAT WE USED:

1. CARD
2. BLU-TACK
3. PAPERCLIPS
4. STRAW
5. SCISSORS
6. TAPE
7. WOODEN SKEWERS

INSTRUCTIONS

1.

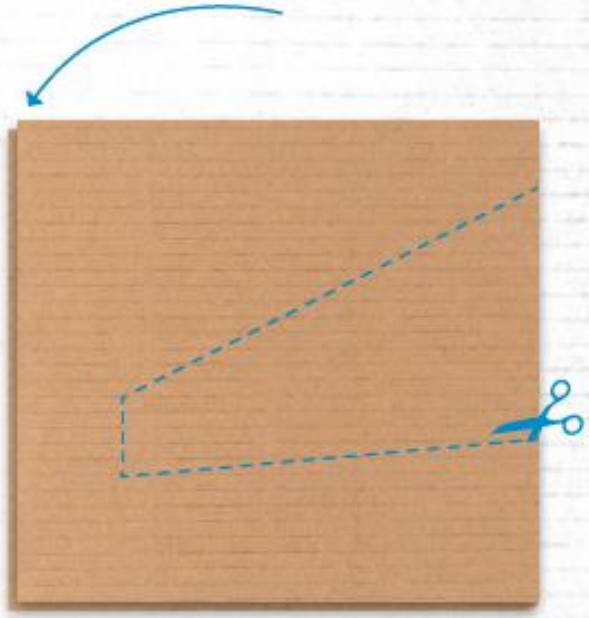
Use something sturdy as the body of your glider, we've used a straw or a wooden skewer.



2.

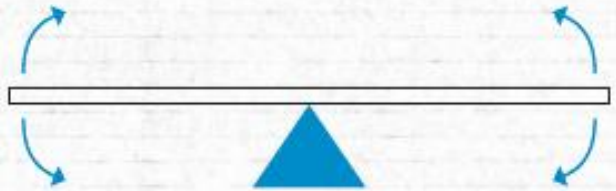
Choose your wing shape – there are many to choose from, have a look at some real examples of planes for inspiration as well.

INSTRUCTIONS



3.

To make your wings symmetrical fold over a piece of card and cut out your wing shape.



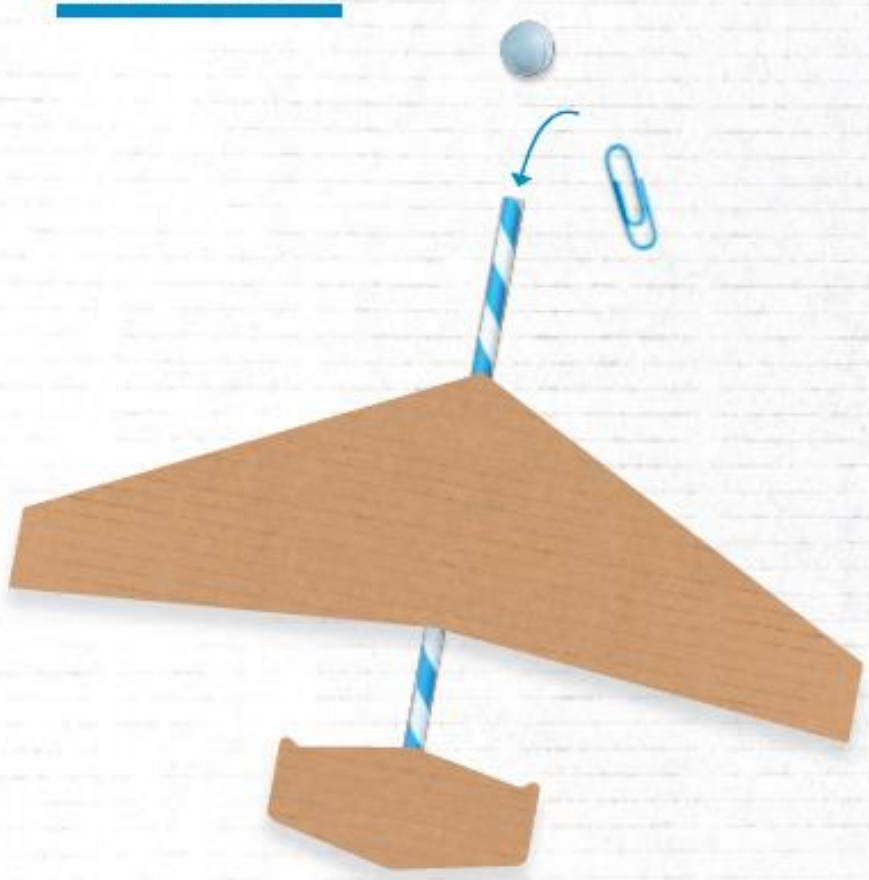
4.

Find the balance point of the body of your glider. This is where your wings should go.

5.

Make your tail using the same technique as the wings. Your tail acts as a stabiliser to make sure your glider doesn't roll in the air.

INSTRUCTIONS



6.

Add blu-tack or paperclips to the front of your glider to add weight.

Glider flies up then nose dips and swoops.

Nose too light - **add more weight**

Glider descends slowly and evenly.

Just right!

Glider dives and keeps diving.

Nose too heavy – remove some weight

7.

Have a go at testing your glider and adjust where the weight needs to be.

INSTRUCTIONS

8.

Record how far it travelled and how long it was in the air, then you can calculate the speed it was travelling at.

Use the table below:

	Distance travelled (m)	Time in the air (s)	Speed (m/s)
Test 1			
Test 2			
Test 3			
Average			

NEED A CHALLENGE?

If you complete your glider and want to challenge yourself further:

1. Decorate your glider in the most imaginative way possible
2. Make another glider with a different wing shape and see which goes further
3. Look into adding dihedrals onto your wings (watch the video to find out how we did it)
4. Look into how wing shapes can make your glider do aerobatics
5. Film a video of your glider in action and send it to us!