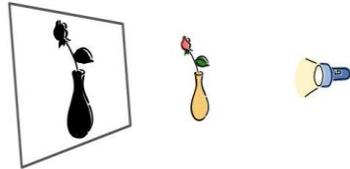


Experimenting with Shadows.

Place different objects such as; *a rubber duck, cutlery, cups and glasses*, on to a table at home and observe how the shadows change as the light is shone on them in different ways.

Try experimenting with the light source by; *switching it on and off, making it brighter and dimmer (if possible), moving it forwards and backwards and up or down* to see how these changes affect the shadows.



Remember to ask for permission first.

Find out about light and reflection by playing the light and dark game on BBC Bitesize.

www.bbc.co.uk/bitesize/ks2/science/physical_processes/light_dark/play/



Extra challenge:

Can you help Sarah Jane in the 'Circus hall of mirrors?'
www.bbc.co.uk/bitesize/ks2/science/physical_processes/light_dark/play/sarahjane/

Can you write a message, that when reflected in a mirror, will make sense?



Make Your Own Rainbow!

You will need:

- A glass of water (about three-quarters full)
- White paper.
- A sunny day.

Instructions

- 1) Take the glass of water and the paper to a part of the room with sunlight (near a window is good).
- 2) Hold the glass of water (being careful not to spill it) above the paper and watch as sunlight passes through the glass of water, refracts (bends) and forms a rainbow of colours on your sheet of paper.
- 3) Try holding your glass of water at different heights and angles to see if it influences the formation of the rainbow.



Try completing any of these activities on the power-point.

<https://www.twinkl.co.uk/resource/t2-s-543-year-6-early-morning-science-activities/light>

A Submarine Periscope

The Royal Navy wants a design a lighter weight periscope for its submarines. Its engineers come up with this design.

Working problem:

Design one: you think of the design (create it).

Use your space to show how light travels.

Modify (change) the design if you need to.

Solution: Think of 4 different ways that help people use the device.

Use Shadow Puppets to Tell a Story

It's a gloomy November day in Scotland for Cassie. The wind is whistling, the rain is hammering and they have been playing since all day. They have been having some different types of games. One is called 'Shell and the Sun'. There are strange and magical reasons. They are capable of looking and in a way of...

Instructions:

1. This is how you do it: you use a white paper, an egg of the shell.
2. Making your shadow.
3. Making your story.

For this task:

1. Make puppets.
2. Create your own story and characters.
3. Make a shadow puppet.

1. Use string, to hold the puppets up. Use a stick of plastic and the hoop!

2. Use diagrams and talk to your friends to help you make the shadow puppet.

3. Have well or shadows to show on the wall!

How do I know if the shadows and create the shadow puppet. Paper, stick pins will show the puppets and stick pins will be the light come through.

Shadow Size

James did an experiment to find out what happened to a shadow as the light source moved away from it.

Distance from light source (m)	1	1.5	2	2.5	3	3.5	4	4.5	5
Height of shadow (cm)	30	45	60	75	90	105	120	135	150

Instructions:

Draw a graph to show the pattern in these results. Write sentences about what you see.

Starter: Finish this sentence. The closer the light source, the...

Challenge: Predict what might happen if the light source is made dimmer. Predict what would happen if the light source is tilted upwards.



Year 6 Spanish: Los numeros 40-200

New words and phrases

- 40 - cuarenta
- 50 - cincuenta
- 60 - sesenta
- 70 - setenta
- 80 - ochenta
- 90 - noventa
- 100 - cien/ciento
- 200 - doscientos

From the number 30 onwards, the numbers are separated and linked by 'y' (and).

Example: 31 - treinta y uno (this continues up to 99)

100, if said alone, is *cien*. If other numbers follow, it is pronounced *ciento*.



Recap numbers 30 - 100. Listen to the pronunciation of each number and have a go at the online game.

www.bbc.co.uk/schools/primarylanguages/spanish/numbers/numbers.30.100/

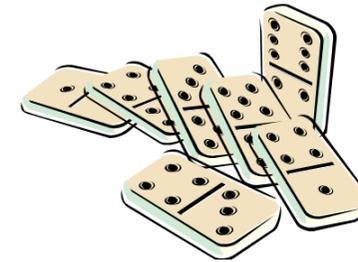


Play 'guess the number' game with a partner/friend

The first person writes a number on the other persons back using a finger. The other person then tries to guess the number, saying it in Spanish. Then swap places.

Practice the numbers 31-100, playing dominos with a partner or friend.

<https://www.lightbulblanguages.co.uk/resources/PrimarySpanish/sp-numbers-31-to-100/dominos.pdf>



As an extra challenge, see if you can create your own set of dominoes for numbers up to 200.

Remember, numbers larger than 100 continue in the same pattern; *ciento uno ciento dos, ciento tres.*

Listen to the Spanish numbers song on Rockalingua. Begin by recapping numbers up to 50... then try larger numbers up to 200. With permission from a parent/carer, you can even download, print and colour the lyrics.

<https://rockalingua.com/songs/numbers-1-50>

There is also a game to play

Research the currency of Spain.
What does their currency look like?

Can you design your own currency for Spain?



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