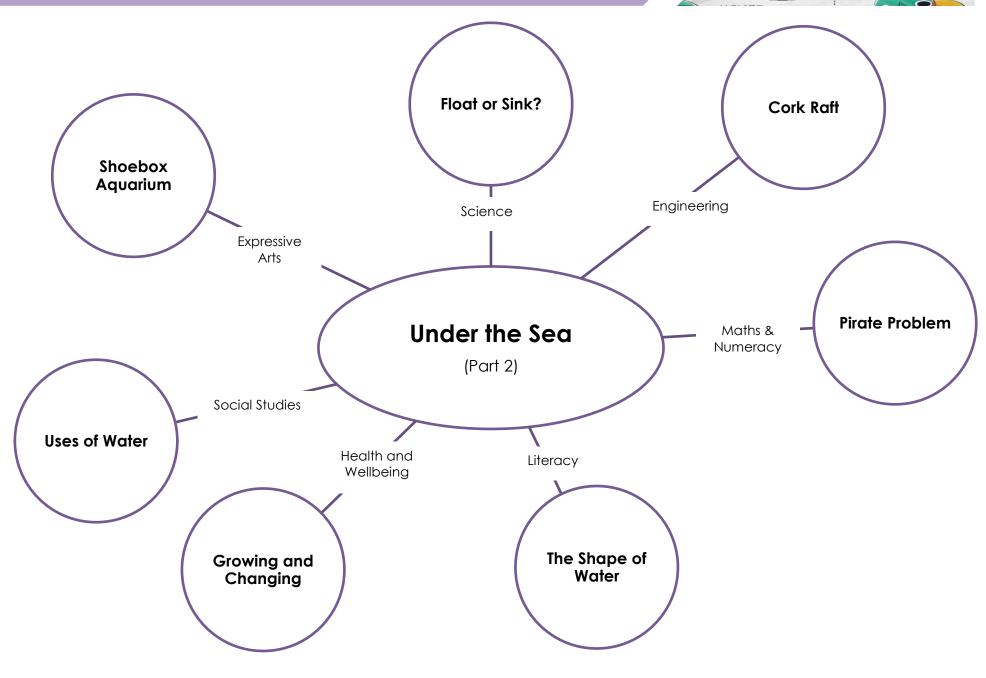
333

# **Learning from Home**





# Science Challenge



#### Float or Sink?

You will need: A large bowl or container, water, selection of things to test, e.g., marble, coin, cork, elastic band, candle, empty plastic bottle, sponge, playdough or plasticine, paper clip, pencil, Lego etc.

#### Instructions:

- 1. Fill a large bowl or container with water.
- 2. Try to predict what will happen for each object. Do you think they will sink or float?
- 3. One at a time, put the different things you have chosen to test into the water and watch to see which of them floats and which of them sinks.
- 4. Write down your results



Activity and Images from TES

Click here to learn about floating and sinking: https://www.youtube.com/watch?v=eQuW8G2QV Q

Make yourself a results table like this one, adding in the extra objects you may find to test.

Object	Predict: Do you think it will <b>float</b> or <b>sink</b> ?	When you put it in water did it <b>float</b> or <b>sink?</b>
Marble 33		
Coin		
Cork		
Paper clip		
Key		
Candle		

Why do you think some things float and some sink?

### The Science

Density is how tightly packed the material inside an object is

Things that are denser than water will sink. Things which are less dense than water will float.

\*Just because something is heavy does not necessarily mean it will sink. For example, a ship might be very heavy but if it is less dense than water, it will still float.



## **Engineering Challenge**



This Photo by Unknown Author is licensed under CC BY-NC-ND

Activity and photos from www.kitchencounterchronicle.com

#### **Cork Raft**

#### \*Adult supervision required\*

Your challenge is to build a raft that can safely carry a family of 3 dolls across water.

#### You will need:

- wine corks (or empty plastic water/juice bottles)
- cardboard sheets
- leather string (or elastic bands and string)
- colouring pens/pencils
- glue
- sticky tape or pads
- peg people (or some sort of people e.g., lego, duplo etc.)
- somewhere to test your raft a large basin you can fill with water or even a bathtub

### **Instructions:**

- 1. Stick or fasten your corks (or empty plastic bottles) together, making sure that whatever you use to do this has some long pieces left attached which can be pulled.
- 2. Next make a 'base' to go on top. Your family will need somewhere to sit.
- 3. Decorate the base if you wish using your coloured pens / pencils
- Attach your base on top of the corks using glue or sticky tape / pads
- 5. Now place your raft into the water and sit your family on top.
- 6. Pull the strings can you make it from one side to the other safely?



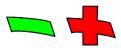
If you have been successful, try making the family larger by adding more dolls. How many can you add before the raft sinks?



## **Maths & Numeracy Challenge**







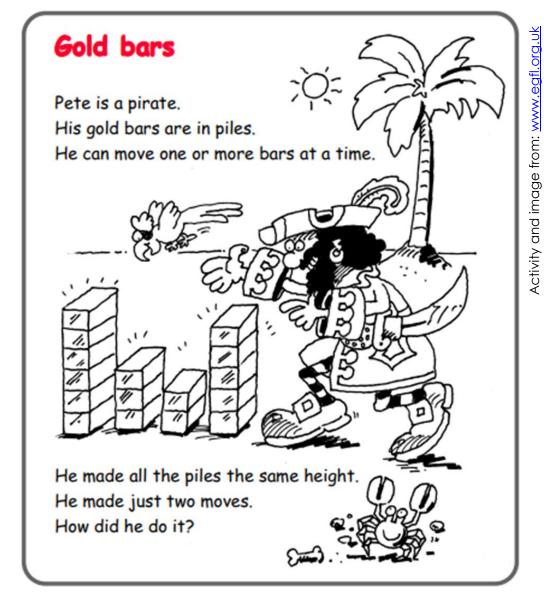
This Photo by Unknown Author is licensed under CC BY-SA

#### **Pirate Problems**

Aargh, Pete has a very tricky problem to solve, can you help?

Think of the strategies you could use. You might just have a guess, check & improve. You could make a model by using blocks, lego or other toys in place of the gold bars. You may then act it out using your pretend gold bars.

Always start by asking yourself, what the problem is asking you to find out and what are the important ideas and details in the problem.



After having a go, ask yourself:

- 1. Have you answered the question?
- 2. Have you checked your answer?
- 3. Is there another answer that would work?
- 4. Can you explain your solution to someone at home?



# **Literacy Challenge**



This Photo by Unknown Author is licensed under CC BY-SA-NC

## The Shape of Water

A shape (or concrete) poem is a poem which is written in a shape similar to whatever is being described – an object, thing or person. The words don't have to rhyme. Here is an example of an octopus shape poem from **Pinterest**.



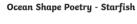
Click here to watch a video which will tell you more: <a href="https://www.youtube.com/watch?v=-Z-Ipp0N9N4">https://www.youtube.com/watch?v=-Z-Ipp0N9N4</a>

Before writing your poem, it may help to write a list of all the words or ideas you can think of describing your underwater creature, deep sea diver, submarine or maybe **shivering sparkling** seaweed.

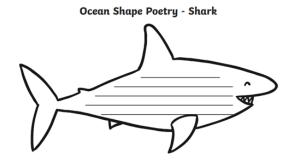
The poems in the video make use of **alliteration**. Alliteration is where you deliberately use words

together which start with the same beginning sound. e.g., **shimmering shark** or **crusty crinkled crab**.

Here are some template ideas from **Twinkl.co.uk.** You can also feel free to make up your own.









You may want to use coloured pens or pencils to decorate your poem after you have written it to make it look even better.

Have a go at writing your own shape poem and try to include some alliteration where you can. When you are finished, remember to share your work with somebody at home.



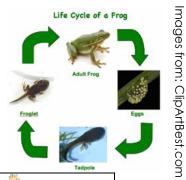
## **Health & Wellbeing Challenge**



## **Growing and Changing**

Have a look at this picture showing the life cycle of a frog. See how it changes from a simple egg to a tadpole to a froglet before finally turning into an adult frog.

We go through lots of changes from when we are born too, although it takes much longer for us to be fully grown adults than it does for a frog.



#### Have a look at the pictures below then answer the questions.

		Tadpole
1.	2.	3.
4.	5.	6.

Age	What I looked like	Something I could do	Something I couldn't do
When I was born			
1			
3			
5			

- 1. How old are you? Which of the pictures shows someone about the same age?
- 2. You used to be close in age to at least one of the other pictures.

Complete this table to show what you were like.

You can either write in the boxes or draw pictures. Keep going until you reach your age now.

\*Talk to an adult at home to remind you of what you were like when you were very young.

How far back can you remember?

- 3. What things do you think you will be able to do when you are older that you can't do now?
- 4. Is there anything you will stop being able to do when you get older?



# Social Studies Challenge

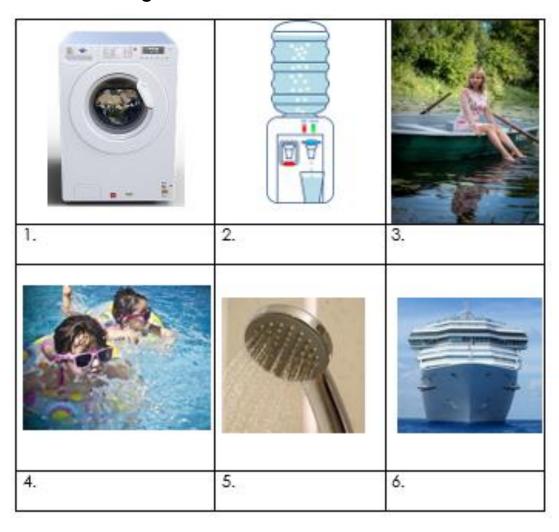


This Photo by Unknown Author is licensed under CC BY-SA

### **Uses of Water**

All living things need water to survive.

Have a look at these pictures. See if you can say what is happening in each one and how the water is being used.



Pick 2 of the pictures and write about what you think the picture is, how water is being used and why this is important to us.

e.g., Picture 3 is of a woman sitting in a boat which is in a loch. She is dangling her feet over the side of the boat, and they are in the water. Being on the water is helping the lady feel relaxed.



## **Expressive Arts Challenge**



### **Shoebox Aquarium**

\*Please note that adult support and supervision is required for this activity\*

Have a go at making a fabulous shoebox aquarium like these ones.



Images from YouTube.com

Click here for the instructions to make one:

https://www.youtube.com/watch?v=j2V4KKOu-YI

### You will need:

- Empty cardboard box (or adapted empty cereal box)
- PVA glue / glue stick
- Sellotape
- String or thread
- Pen or pencil
- Colouring pens and / or pencils
- Coloured paper (including blue for the background)
- Scissors
- See through plastic coating (not essential)



Remember the more complicated your sea creatures and plant life are, the more difficult they will be to cut out.

