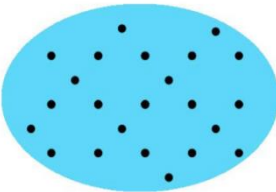




English	Maths	Wider Curriculum	Experiences
Write a persuasive letter to your headteacher why break times should be increased. What are the criteria for convincing a reader?	Using digits 1 - 9, use column method to solve a 4-digit number with two regroupings. For example: 4657 - 1398 Work out as many as possible.	Become a cartography! Create a map about your surrounding not forgetting to include key details such as bus stops, underground stations and parks. Design your own key for the physical features' readers need to identify.	Make an egg fit into a bottle! See below for further information.
Write an alternative ending to our class book, 'The Dragon's Hoard' by Lari Don.	Find as many ways as you can of representing the number of dots. Try to find at least five ways.  Now find ways of representing ten times as many dots. Can you still find at least five different ways?	We are going to be learning about the Tropic of Cancer and Capricorn and the equator. Design your perfect place to live. Would it be hot and sunny? A desert? A forest? A beach? Would it be cool and temperate?	Become a horticulturalist! Sow seeds and grow some herbs. Where is the best place for them to grow? What do they need to survive? Can you cook or bake with them once they have grown?
Create your own wordle which includes all of the words to describe yourself.	Focus: Fluency in the times tables. Aim: Add the numbers of the dice and multiply the answer by 9 before your partner. You will need: 6 sided die each Instructions:	Become a chef and an engineer! You have been tasked with designing a perfect meal for your favourite person. However, they are living far	Using your wordle ideas, write what professional job you would like to do as an adult.



Autumn Two Home Learning Year 4

	You and your partner both need to roll your die. Race against each other to add the numbers shown on both dice together then multiply the answer by your chosen times table. The first person to say the whole calculation out loud ($? \times ? = ?$) wins. The winner is the first person to reach 10 points. Example The two dice show 2 and 3. $2 + 3 = 5$ $5 \times 4 = 20$ Whoever says the final calculation first wins a point.	away and the meal needs to be flown to them. How are you going to make sure the food arrives safely? What type of packaging will it need? How can you make sure it stays fresh?	
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CHANGING STATES

SCIENCE CHALLENGE

01

Designed by Charles,
Design engineer at Dyson

The brief

Make an egg fit into a bottle without breaking it.

The method

1. Submerge the egg in a glass of vinegar for two days: the shell will become rubbery.
2. Heat the bottle in hot water – remember to use gloves or a tea towel when handling it.
3. Rest the egg on the neck of the bottle.
4. As the air inside the bottle cools down, it will contract and suck the egg down.

Top tip

Try lubricating the egg with cooking oil or washing up liquid.

Materials

An uncooked egg

A pan of boiling water
(with adult supervision)

A glass of vinegar

A wide-mouthed
glass bottle



How does it work?

Eggs are rich in protein. When heat is applied, chemical bonds within the protein molecules are broken, and new bonds are formed between adjacent molecules. This creates a network of inter-connected proteins which causes the egg to go hard.

Vinegar contains acetic acid (CH_3COOH) that dissolves the calcium carbonate (CaCO_3) shell but leaves behind the egg's springy membrane.

