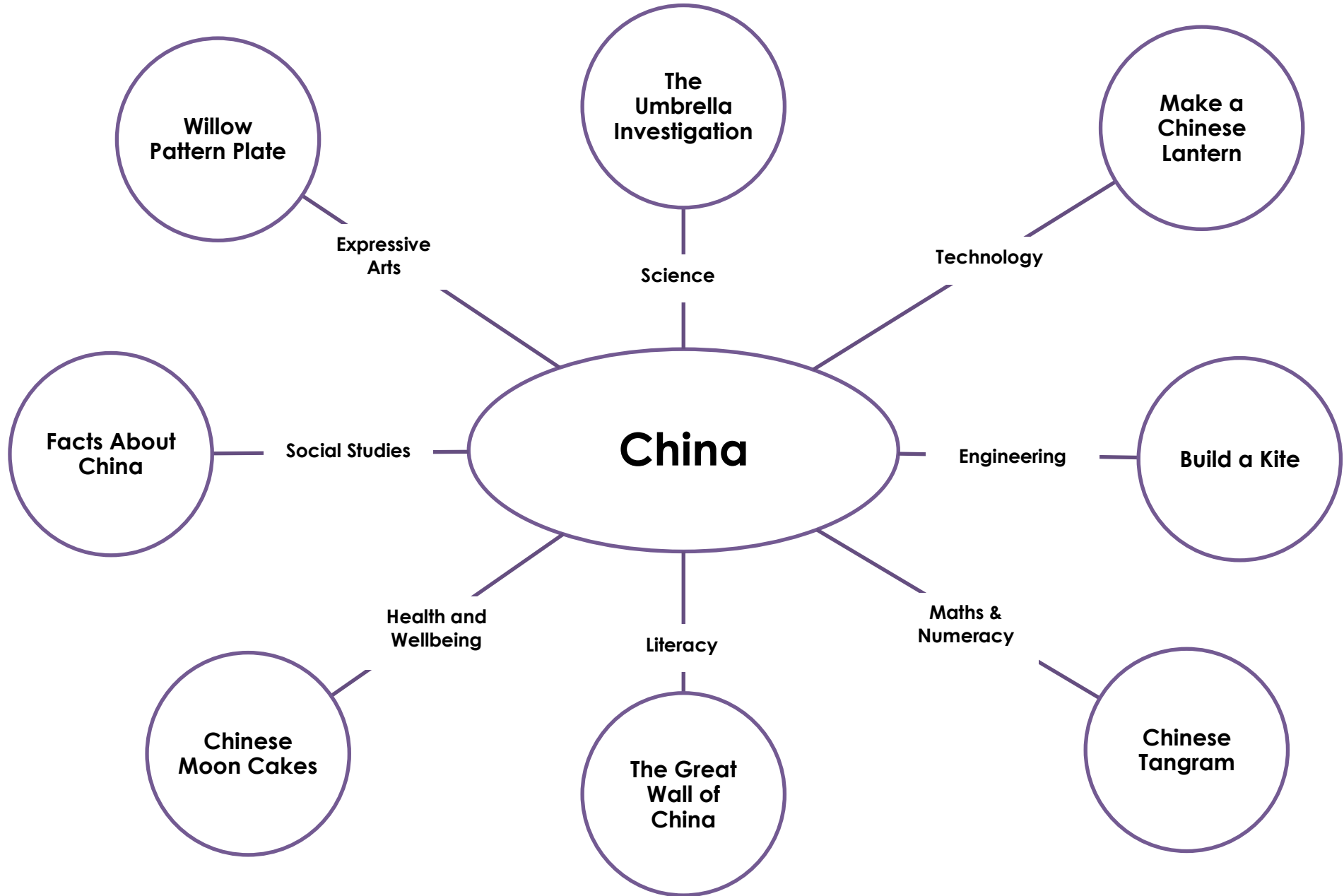


Learning from Home



Science Challenge



The Umbrella Investigation

According to Wikipedia, the umbrella was invented 3500 years ago in China. Legend has it, Lu Ban, a Chinese carpenter and inventor created the first one alongside his wife. Inspired by children using lotus leaves as rain shelter, they created an umbrella by making a flexible framework covered by a cloth.

Today, Teddy has lost his umbrella and all he can find are materials in his cupboard.

Your challenge is to find some materials at home like those in the 3rd picture. You must test them to see which is the most waterproof (water cannot pass through it).

You will need: water and somewhere to test your items without getting everything else wet. This could be the bathroom or outside. You also need to think about the best way of checking if each material is waterproof or not. Talk to a grown up before you start.

Try to **predict** (decide what you think will happen) which material would keep Teddy driest before you start. **Chat to an adult about this.**

Write down your results in the table below. (Or draw your own on paper) If you had to choose one material to make an umbrella from, which would you choose? Why?

Teddy has lost his umbrella and it is raining.



He wants to go to see his grandma but doesn't want to get wet.



He looked in the cupboard for an umbrella, but this is all he found..



Material (Write name or draw a picture)	Waterproof	Not Waterproof

*Write down what you think it means to be waterproof.

*Which other items need to be waterproof? Why?

Activity and images from TES

Technology Challenge



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Make a Chinese Lantern

Today, we are making paper lanterns for the Chinese New Year.

You will need: Paper or cardstock (preferably red or yellow), scissors, stapler or tape, glue stick, ruler, pencil, things to decorate your lantern with (ribbons, sequins, glitter etc.)



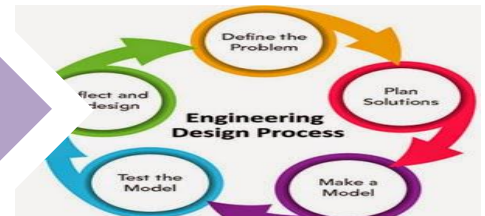
Instructions:

1. Prepare the paper.	Start out with an A4, rectangular sheet of paper or cardstock. Red and yellow are preferred colours for a Chinese-themed lantern but you can choose any colour you like.	
2. Make the handle.	Cut a 3-4cm wide strip off on one short side. Set this aside for the handle.	
3. Fold the paper in half.	Fold the paper in half, lengthwise.	
4. Draw a horizontal line.	Draw a horizontal line one inch from the long edge opposite the fold.	
5. Cut the first slit.	Starting from the folded edge, cut a straight line about an inch from one short edge, all the way up to the horizontal line.	
6. Cut more slits.	Continue to cut more straight lines about 1 inch apart until you reach the opposite short edge of the paper. The horizontal line marks the point where you stop cutting each straight line.	
7. Unfold the paper.	Unfold the paper. The paper will have several vertical slits along the middle. Carefully rub out any pencil marks or re-fold the crease the opposite way to hide them.	
8. Decorate the top and bottom edge.	You can keep your lantern plain or decorate the top and bottom edges: a.) Paint or colour - make a border by painting or colouring the top and bottom edge of the paper. b.) Draw details - create patterns and details with glitter glue, puffy paint, or coloured markers. c.) Glue a band - glue a strip of gift wrap paper, patterned paper, washi tape, fabric, lace or a wide ribbon to make a border. d.) Glue shapes or sequins - glue on craft foam or felt shapes, small buttons, beads, sequins etc. Remember to leave at least ½-inch of undecorated area on one top corner. This gap will allow you to connect the two edges of the paper to form a lantern.	
9. Form the paper into a lantern.	Turn the paper into a lantern by forming it into a tube shape. Overlap the long edges at least ½-inch. Staple or tape at the top and bottom of the overlap.	
10. Glue the handle.	Take the paper handle you made in Step 2. Glue the ends on the inside of the lantern's top edge. Decorate the handle if you like. Once the glue dries, hang the paper lantern as a festive Chinese New Year decoration.	
11. Add streamers.	Cut strips of crepe paper and glue these along the inside of the lantern's bottom edge. These streamers will make the lanterns move gracefully with the wind.	

Activity and images from www.firstpalette.com/



Engineering Challenge



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Build a Kite

Kites were invented in China 2,500 years ago. Originally, kites were used by the military to send messages and for measuring distances. Soldiers could see them flying and knew what they meant.

Adult supervision required

You will need:

Newspaper, colourful tape, scissors, 2 lengths of strong string, ruler, strong tape (duct tape), 2 dowels (long thin sticks), *hot glue gun (optional)*

The earliest kites were built of wood and cloth. Paper was used later.

Activity and Images from <https://littlesforlittlehands.com/>

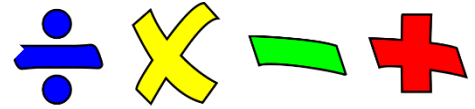
How to Build Your Kite:



1. Measure out 2 lengths of dowel, one 4" longer than the other e.g., a 24" and 20", and carefully cut with scissors. Then measure 6" down from the top of the longer dowel and place the centre of your smaller dowel across it.
2. Tie or tape the centre of the dowels together by weaving a piece of string around each side and tie off into a knot.
3. Carefully cut a notch into the ends of the dowels, wrap a piece of embroidery thread around the kite and tie into a knot. You can hold those in place with a dab of hot glue or sticky tape.
4. Lay the "t" shape onto a large piece of newspaper and cut an inch larger all the way around.
5. Fold each edge over the string around the kite and firmly tape the edges.
6. Poke a tiny hole at each point of the kite. Then starting at the top, place a piece of string through the top hole, tie a knot onto the back of the kite and tape. Place that same string through the bottom hole, tie a knot onto the back of the kite and tape.
7. Let that string hang about 24" from the bottom and tie about 5 7" pieces around the string.
8. Repeat STEP 6 across the width of the kite.
9. Use a piece of leftover dowel and wrap an entire strand of embroidery thread around it. Then tie the end to the centre "t" of the strings and the dowel will be what you use to fly the kite.

Safety note: **Ask an adult to go with you to fly your kite and make sure it is an open space away from overhead cables.**

Maths & Numeracy Challenge

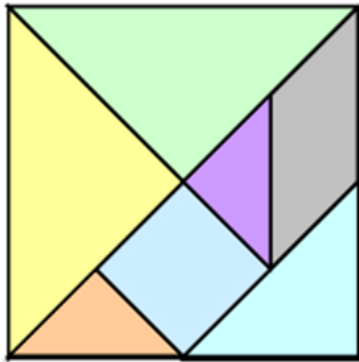


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Chinese Tangram

Tangrams are an ancient Chinese puzzle

Starting with a square made up of 7 pieces... you must arrange them to make a silhouette



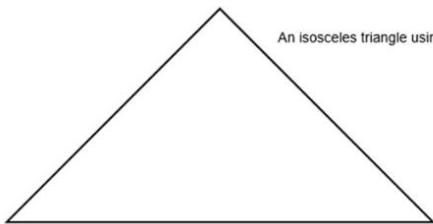
Tangrams are geometric puzzles – that is a shape which is cut into 7 pieces that then fit together to form another shape. The pieces are all **2D** shapes – 5 **triangles** (2 large, 1 medium and 2 small), 1 **square** and 1 **parallelogram**.

1. Carefully cut out the shapes from the coloured square. Arrange them to make the Chinese silhouette character shown.

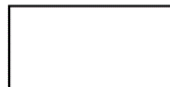
A rectangle using all 7 pieces



An isosceles triangle using all 7 pieces



A rectangle using 3 pieces



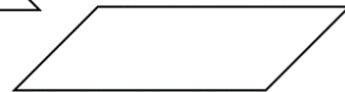
A trapezium using 3 pieces



A triangle using 3 pieces



A parallelogram using 4 pieces



- Now use your shapes to make these geometric shapes using the number of pieces described.
- Investigate using your shapes - how many other shapes / characters can you make?

Click here for an online tangram activity:

<https://www.abcya.com/games/tangrams>

Activity and
images from
TES

Literacy Challenge



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The Great Wall of China

The Great Wall of China, one of the greatest wonders of the world, has been said to be the only manmade structure that can be seen from space. It was built over 2000 years ago to protect China from its enemies.



Images from <http://clipart-library.com/>

Barbarians had been riding their horses into China, killing the people, and stealing their possessions, so the first emperor of China decided to put a stop to these attacks. He began to build the biggest manmade structure known on Earth. Thousands of men worked cutting bricks and blocks of stone for the wall. There were no machines, so everything had to be done by hand.

The wall is up to 8 metres tall and over 2000 miles long. It is wide enough, in some places, for nine soldiers to march side by side. It is also very steep as it snakes up the mountains. A large watchtower was built every 60 metres along the wall and smoke signals were sent from tower to tower to warn the Chinese army if an enemy tried to attack.



Many people from all over the world go to China every year to visit and walk along the Great Wall.

Questions:

1. How old is the wall?
2. Why was the wall built?
3. How did soldiers in the watchtowers communicate with each other?
4. Which paragraph explains why the wall was built?
5. Under a heading '**Size of the Wall**' write yourself some notes using the information from the passage.
6. Write your own paragraph using the information in your notes. Share your paragraph with a grown up. Can you read it out to them?
7. Write your own question based on the information in the passage. Ask a grown up to see if they can find the answer.



Health & Wellbeing Challenge

Chinese Moon Cakes

Moon Cakes are eaten during Chinese New Year because the Chinese New Year is based on the lunar calendar (and the little treats look like the moon). Cakes can be high in sugar and fat, but it is usually fine to eat them now and then (especially for a celebration) as part of a healthy balanced diet, as long as you don't have a health condition which advises otherwise.

Note: This is a simplified version of the recipe. The original cakes are much fancier and also have Chinese letters pressed onto them.

Ingredients:

Adult supervision required

- 1/4 cup sugar
- 2 egg yolks
- 1/2 cup salted butter
- 1 cup all-purpose flour
- 1 cup strawberry (or your favorite) jam (traditionally red bean paste is used so if you want a more authentic version, you can use a can of red bean paste instead of the jam).

Always wash your hands before preparing food.



Directions:

1. Preheat the oven to 190 degrees centigrade / gas mark 5.
2. Combine the butter, sugar and 1 egg yolk and stir.
3. Mix in the flour.
4. Form the dough into one large ball and wrap it in plastic wrap.
5. Refrigerate the dough for half an hour.
6. Unwrap the chilled dough and form 4 balls in the palms of your hand.
7. Make a hole with your thumb in the center of each mooncake and fill with about half a teaspoon of jam. Cover over the hole and gently press on the ball to flatten it slightly but keeping the jam / paste inside.
8. Use a prong on a fork to gently scratch a simple pattern on the surface.
9. Brush each cake with the other beaten egg yolk and place on a cookie sheet. (Don't worry if you don't have a brush to do this, just skip this step)
10. Bake for about 20 minutes or just until the outside edges are slightly brown.



Recipe adapted from www.dltk-kids.com
Images from www.clipart-library.com

Social Studies Challenge



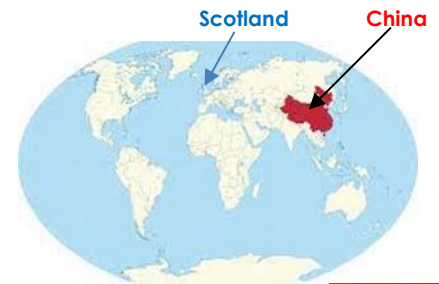
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Facts About China

There are seven **continents** in the World: Asia, Africa, North America, South America, Antarctica, Europe, and Australia (listed from largest to smallest in size).

Scotland is in Europe and **China is in Asia**.

China is officially known as the People's Republic of China. It is a very large country and is the 3rd largest in the whole World by physical size. There are more people living in China than any other country in the World.



People in China mainly speak **Mandarin**. The official Chinese currency is the Renminbi which is often referred to as the **Yuan**.



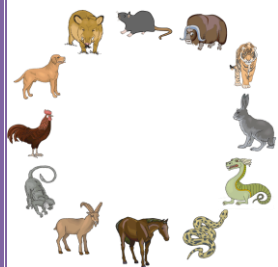
China enjoys many traditional festivals every year, but their most important and biggest celebration is Chinese New Year.

The date of Chinese New Year changes from year to year depending on when the new moon occurs in either late January or February. This year Chinese New Year falls on February 1st.



Celebrations last for fifteen days, ending on the date of the full moon. In China the public holiday lasts for three days and is the biggest celebration of the year.

Info and images from <https://www.topmarks.co.uk/>
Map from image from <https://commons.wikimedia.org/>



The Chinese calendar is different from that used here. It is made up of a cycle of twelve years, each named after an animal. This is very like our signs of the zodiac. Some people believe that people born in a particular year such as the year of the Dog will have some of the characteristics of that animal.

Click here to find out which Chinese Zodiac animal you are:

<https://www.topmarks.co.uk/chinesenewyear/Zodiac>

Click here to watch the twelve animals in the race which decided the order of the Chinese calendar.

https://www.youtube.com/watch?v=eVCIAj8q_IY

*Which of our festivals is your favourite? Why? Try to find out about some of the Chinese New Year customs – there is information on the Topmarks site. (See link above) Chat to a grown up about what you have found out.

Expressive Arts Challenge



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Willow Pattern Plate

The Willow pattern is a distinctive and detailed design used on household dinnerware. It became popular in this country at the end of the 18th century when it started being imported from China. The design is based on a Chinese story...

1. A rich Mandarin warrior had a beautiful daughter, called Koong-Se. She lived in her father's pagoda garden as she was promised to Ta-Jin, a noble warrior. Her only friends were two doves.
2. The doves were also friendly with Chang, employed as a gardener to the Mandarin. The doves passed messages between Chang and Koong-Se. They fell in love. Chang wrote a poem and sent it to Koong-Se in a shell.
3. Koong-Se received the love poem. She added sails to the shell and sent it back down the stream. In it was a letter telling of her marriage.
4. On the wedding night, all the guests became drunk. Koong-Se and Chang met. They agreed to run away together.
5. They were seen by the guests and chased. They escaped in a boat and sailed away to a distant island to become farmers.
6. The Mandarin trapped the birds and sent his men to find Koong-Se and Chang. They could not find them, so he had an idea; he released the doves.
7. The birds led the Mandarin to Koong-Se and Chang. They were captured and thrown into a maze under the pagoda garden.
8. They tried to escape but died in each other's arms. The gods were so touched by their love that they transformed them into lovebirds the instant they died.

Your Task: is to make your own willow pattern plate based on any section from the story.

You will need: paper plate, blue media - paint, pens, colouring pencils, chalk pastels etc.



Can you see which parts of the story are shown by the arrows?

To watch the story of the Willow Pattern, click here:

<https://www.youtube.com/watch?v=Ge1LD8JDfYg>



Activity and images from TES