

Learning from Home



Science Challenge



Picking Up Ice Cubes

Check with an adult to make sure you have some ice cubes made in advance

Can you pick up an ice cube using only a piece of thread?

You will need:

ice cube
thread
salt
glass of water filled up nearly to the top



Method:

1. Drop the ice cube into the glass of water.
2. Have a go at picking up the ice cube using only the thread. You could try making a loop around it or come up with or some other way. Could you do it?
3. Now lay the thread on top of the ice cube with the ends dangling over the side of the glass.
4. Sprinkle salt on top of the ice cube and thread. Leave it for a few minutes.
5. Take both ends of the thread and pick them up.
6. Lift up the ends of the thread and hold them up high. What happens to the ice cube?

The science:

Saltwater freezes at a lower temperature than normal tap water. The salt melts some of the ice so that the thread goes slightly inside the ice cube. The water then freezes again over the thread, trapping it inside the cube. So, when you lift up the thread, the cube comes with it.



Images from Pinterest

Technology Challenge



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Snowflakes

Did you know that all snowflakes are different?

While snowflakes appear to be white as they fall from the sky or as they gather on the ground, they are actually totally clear.



Photos from:
www.metoffice.gov.uk

The ice though, is not **transparent** like a sheet of glass in a window but rather it is **translucent**, meaning that while light gets through, you can't see any objects or shapes through it.

To watch a short video about snowflakes click here:

<https://www.youtube.com/watch?v=rbW6MsXfPYU>

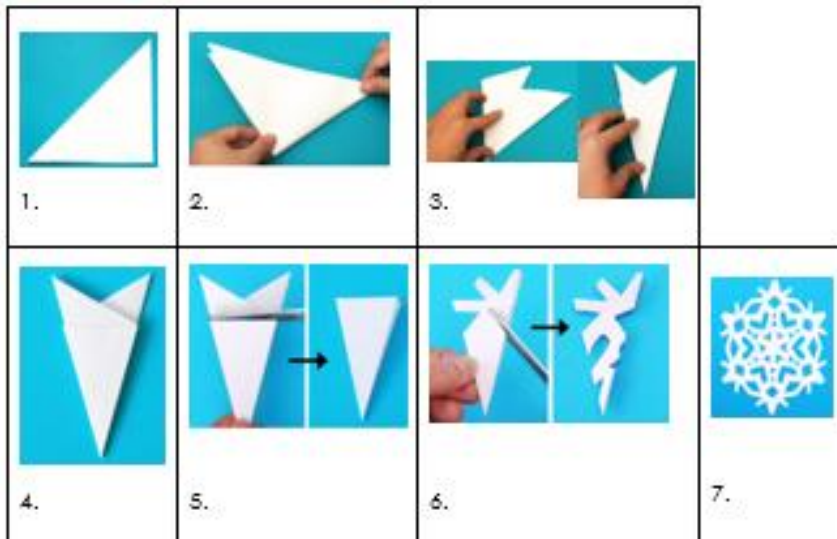
To make your own snowflake **you will need:**

Paper - cut into a square (The smaller the paper the harder it will be)
Scissors



Adult supervision is required.

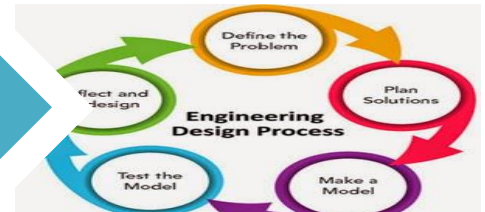
Instructions:



1. Fold the paper in half along a diagonal line to make a triangle.
2. Fold this triangle in half to make a smaller triangle.
3. Next, fold the triangle into three equal sections, folding the two outer sections to the front.
4. Flip the shape over so that you can see the flat horizontal edge is facing the front.
5. Use your scissors to cut along the horizontal edge.
6. Very carefully hold on to your paper and start to cut random shapes out of the edges.
7. Carefully unfold the paper to reveal your paper snowflake.

Instructions and pictures from www.firstpalette.com

Engineering Challenge



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Build a Winter Shelter

Adult supervision is needed for this activity!

Build a shelter to keep the bear from 'The Bear's Winter House' warm. Click here to watch his story: <https://www.youtube.com/watch?v=S6CLojdV2cc>

You will need:

- Brown playdough (See recipe below)
- Shelter building materials (*lolly sticks, pipe cleaners, paper strips, twigs, leaves, moss, string, etc.*)

Optional: small toys (bear) to shelter inside, toy hammer to hammer in posts

Brown Playdough Recipe:

(An adult must supervise - danger of scalding)

- 2 cups plain flour (add more if dough is too sticky)
- 1 cup of salt
- ½ cup of cocoa powder
- 2 cups **boiling water**
- 2 tbsps. vegetable oil
- 2 tbsps. cream of tartar

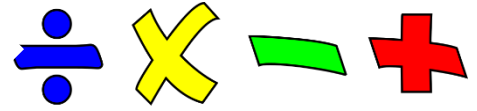
Instructions: Mix dry ingredients together, stir in oil then add boiling water. When cool enough, knead until smooth.



When the playdough is ready you can start to build your shelter.

Idea from Hamilton Trust

Maths & Numeracy Challenge

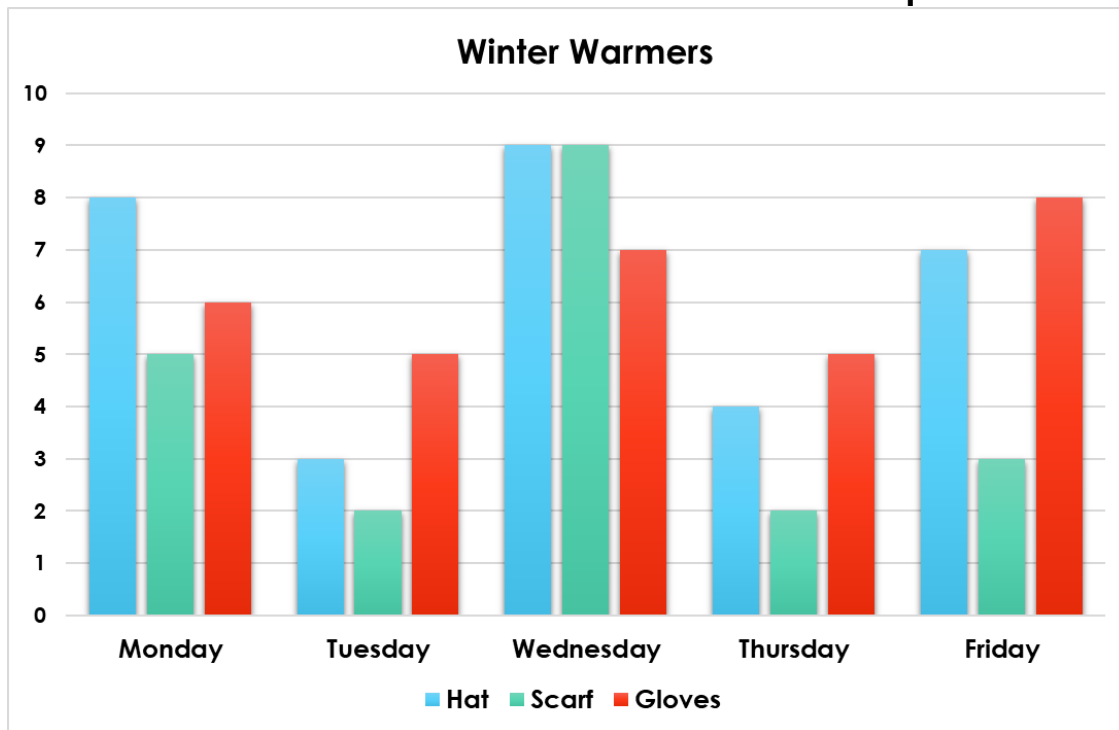


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Winter Warmers

This bar chart shows the number of boys and girls who wore a hat, gloves and scarf to school last week.

See if you can use the information it contains to answer the questions.



Questions

1. How many children wore a **scarf** on Tuesday?
2. How many children wore a **hat** on Friday?
3. On which day did 5 children wear a scarf?
4. One more child wore **gloves** compared to the number who wore a hat on which day?
5. On which day did the same number of children wear hats and scarfs?

Literacy Challenge



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Winter Compound Words

A **compound word** is two smaller words joined together to make a new word.

arm + **chair** = **armchair**

lip + **stick** = **lipstick**

tooth + **brush** = **toothbrush**

See if you can join these words up below to make some new compound words. Write them down then see if you can find them in the wordsearch. Good luck.

frost	snow	time	man	ginger	over	fire	fruit
snow	pine	bite	fall	winter	snow	coat	cake
cone	storm	flake	snow	place	ball	snow	bread



o c z o x z q b n i c t r a g
 s n o w f l a k e a j b s r i
 q m w b y n j f c g m p n h w
 w j s h x c m o v e r c o a t
 g i n g e r b r e a d y w b z
 o p o b i w c y b c f f s f m
 p i w z o i a e k p d j t s f
 b n b g e n w d u z q x o i r
 t e a s b t g q u a p x r s o
 q c l w g e k t z h a r m n s
 n o l d r r z j m b e o s o t
 m n k w x t z a q r w l n w b
 z e f r u i t c a k e e o m i
 i k s o d m r z t n g b v a t
 x a f i r e p l a c e i g n e



fireplace	snowball	snowman	gingerbread
snowstorm	fireplace	overcoat	frostbite
snowflake	pinecone	wintertime	fruitcake

Images from clipart-library.com





Health & Wellbeing Challenge

Road Safety in the Dark

It is much harder to see when it is dark than when it is light. In Winter it gets dark much earlier and it stays dark longer in the mornings.

Have you ever seen anybody out wearing very bright or special **reflective** clothing which shines when light hits it? This makes it easier to be seen in the dark.

Watch this very short clip about how the colours you wear can make you safer when out in the dark. <https://www.bbc.co.uk/programmes/p01199ty>

Try this game where you can see people wearing different outfits. Would they be easy to see if it was dark outside?

<https://www.think.gov.uk/resource/be-bright-be-seen-game/>

Colour me bright

Ages 3-6

Name: _____

Colour Az's clothes brightly, so that he is easier for drivers to see.

T-shirt

Back pack

Cycle helmet

Shorts

Shoes

If drivers can't see you then this could be very dangerous and it could cause an accident.

Have a go at this activity – colour the boy's outfit using bright colours that would make it easier for him to be seen in the dark. You might also want to add some **reflective** items like these ones to be even safer.

Activity from Think.gov.uk



Clipart Images from clipart-library.com

Social Studies Challenge



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Winter Weather

Read the sentences below and use the word bank to fill in the spaces.

(Ask a grown up for help to read any tricky words.)

Spring daylight coldest Winter seasons clothes

Click here to watch a video about the British Winter: <https://www.youtube.com/watch?v=X0Bv6hchrg0>

1. There are four _____ in a year.
2. The seasons are Spring, Summer, Autumn and _____.
3. Winter is the season before _____.
4. Winter is the _____ time of the year.
5. We need to wear warm _____ in Winter.
6. We get less _____ in Winter.

Images from clipart-library.com

Can you match these clothes to the season?

Summer	Winter

 gloves	 sandals	 boots	 hat	 shorts
 sunglasses	 coat	 T shirt	 sunhat	 scarf

Expressive Arts Challenge



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Busy Bodies, Cosy Toes

Activity and photo from:
www.bbc.co.uk/schoolradio ©



This is a fun Dance and Drama session which allows you to take a **'through the window'** look at the winter wonderland outside.

You will need:

A computer or smart phone to access the audio file.

Space to dance and act out the instructions

A partner – this could be a brother or sister or an adult at home.

Click here to listen:

<https://www.bbc.co.uk/teach/school-radio/ks1-dance-lets-move-winter-wonderland/zvkt6v4>

*There is also an option to download the audio file – which could give a grown up the option of playing this outdoors if they feel more space is required for this activity.