

Maths Through the Year: Record of activities



Autumn 2019 (Second half)

Year	Event	Date	Name of Activity	Mathematics Topics
Reception	Monkey Day	14 th December	10 monkeys	Number / Shape, space and measures
1	Hug a Bear Day	7 th November	Different bears	Patterns and sequences
2	Road Safety Week	18 th – 24 th November	Symmetrical signs	Geometry – properties of shapes
3	Universal Children's Day	20 th November	Freedoms	Statistics
4	World Science Day for Peace and Development	10 th November	Maths helping science	All mathematics topics
5	International Mountain Day	11 th December	Mountains	Number – addition and subtraction / Number – fractions (including decimals and percentages) / Measurement / Statistics
6	National Tree Week	23 rd November – 1 st December	Trees	Number – addition and subtraction / Number – fractions (including decimals and percentages) / Measurement / Geometry – position and direction / Statistics

To download more free activities and find out how Busy Ant Maths can support your school, visit collins.co.uk/BusyAntMaths

10 monkeys



We're celebrating Monkey Day!

On this day we celebrate everything to do with monkeys. Cut out the 10 monkeys. Use the monkeys to do these activities:

You will need:

- scissors

① Using all of the monkeys, put them into two groups. How many monkeys are in each group? How many different ways can you put all 10 monkeys into two groups? \approx

② Sort all of the monkeys. How many different ways can you sort the monkeys?

③ Arrange the monkeys into a repeating pattern. How many different patterns can you make?



Different bears

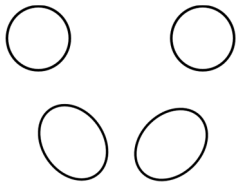


We're celebrating Hug a Bear Day!

Look at the first bear. Using just one coloured pencil, colour the bear's head.



Using a different coloured pencil, colour the bear's paws.

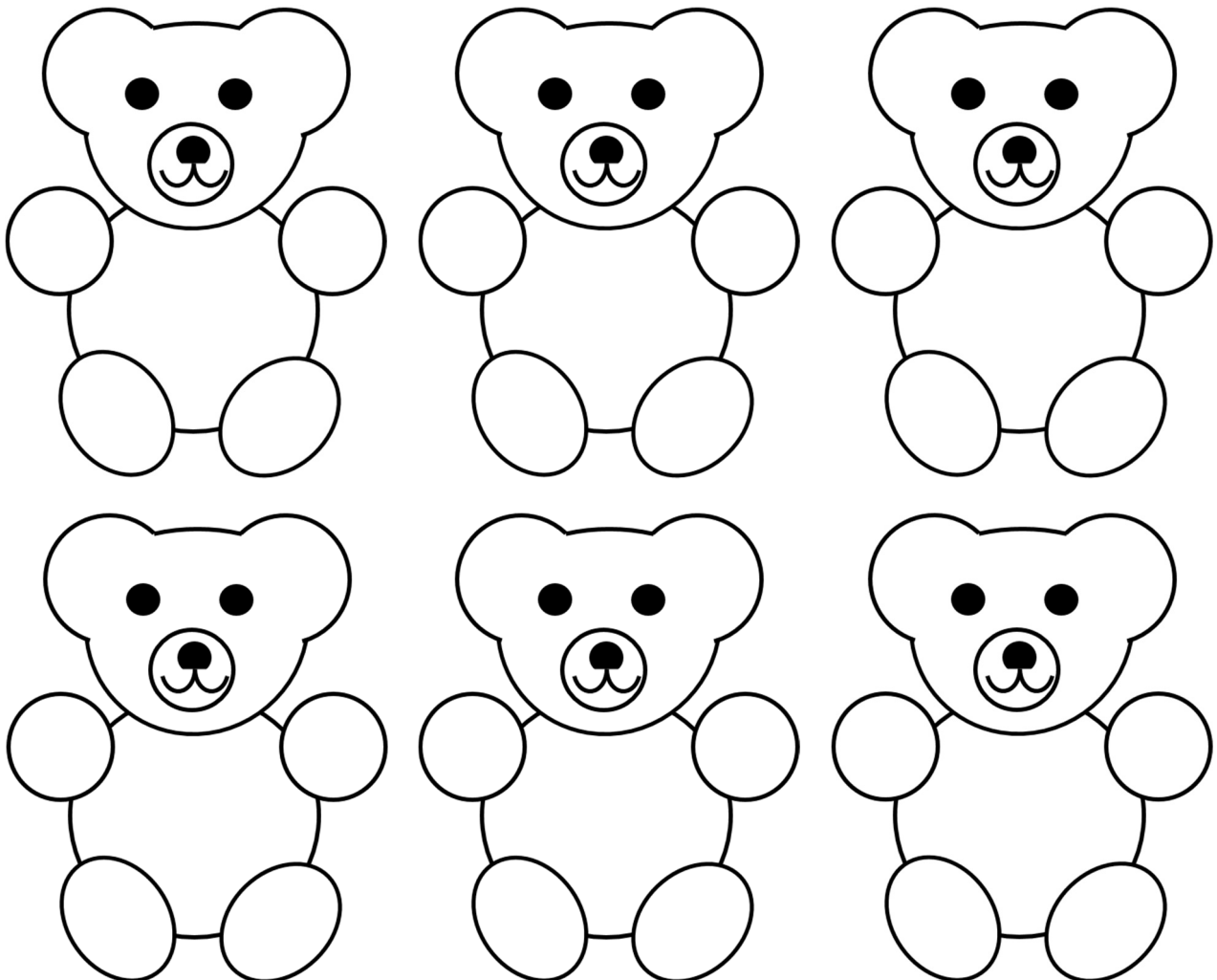
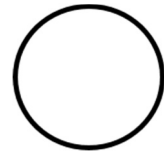


You will need:

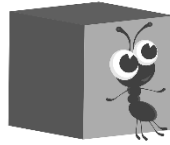
- 3 different coloured pencils

Using the third coloured pencil, colour the bear's body.

Can you colour six different bears?



Symmetrical signs



We're celebrating Road Safety Week!

When we walk, cycle or drive, one of the most important things that keep us safe are road signs.

You will need:

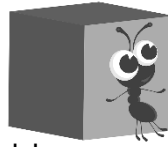
- ruler

Which of these road signs has symmetry? If a sign has symmetry, draw the line of symmetry.



Discuss why you think a sign does or does not have symmetry.

Symmetrical signs



We're celebrating Road Safety Week!

When we walk, cycle or drive, one of the most important things that keep us safe are road signs.

You will need:

- ruler

Which of these road signs has symmetry? If a sign has symmetry, draw the line of symmetry.



Discuss why you think a sign does or does not have symmetry.

Children's answers will vary depending on whether they only identify vertical lines of symmetry (as stated in the Year 2 Geometry – properties of shapes NC learning objective: 'identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line') or are also able to identify horizontal and diagonal lines of symmetry.

Similarly, children's answers will vary depending on whether they only consider the shape of the sign or if they also consider the writing / artwork on the sign.

Freedoms



We're celebrating Universal Children's Day!

On this day, in 1959 the United Nations signed the Declaration of the Rights of the Child. The declaration has five main 'freedoms' aimed to help all children grow up healthy and free.

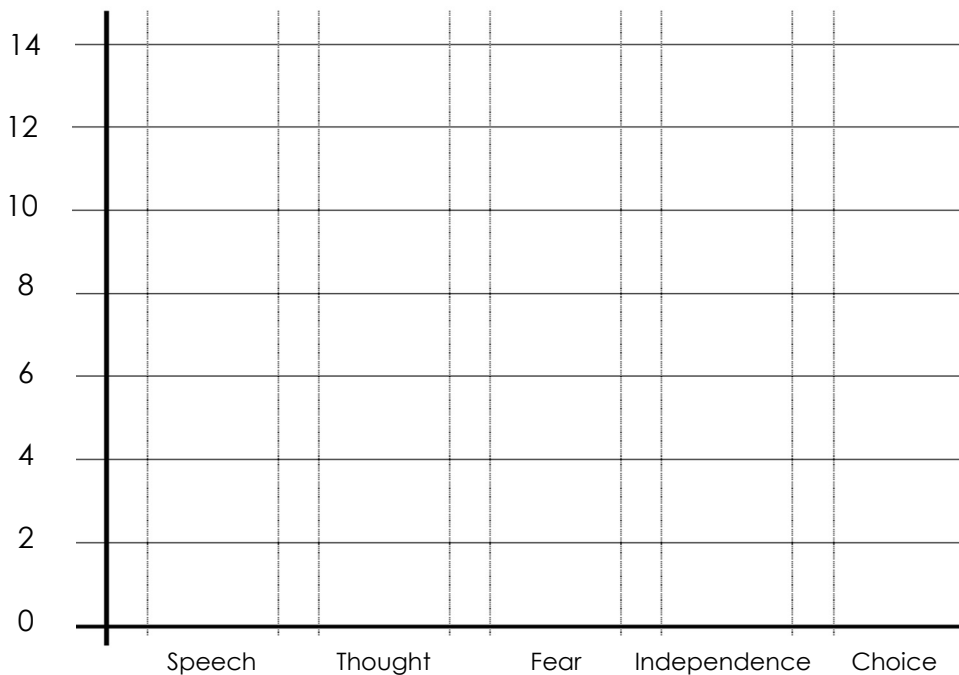
- Freedom of speech
- Freedom of thought
- Freedom of fear
- Freedom to be independent
- Freedom of choice and the right to make decisions

Working with a partner, ask 20 children which one of the five 'freedoms' they think is the most important. As you collect your data record the responses on the tally chart on one copy of this worksheet.

Freedom	Tally	Number
Speech		
Thought		
Fear		
Independence		
Choice		

Now ask 20 adults which one of the five 'freedoms' they think is the most important. Record the responses on the tally chart on a second copy of this worksheet.

Now show your responses on the bar charts on the worksheets.



On the back of your worksheet, write statements comparing the responses for the children with those for the adults.

Maths helping science



We're celebrating World Science Day for Peace and Development! The aim of the day is to show how important science is to our daily lives.

Science is the study of the world around us. Scientists learn about their subject by observing, describing and experimenting, often recording their results using mathematics.

You will need:

- large sheet of paper
- markers

Below are some of the different areas of science.

Physical science

Chemistry: The study of what everything is made of and how it works.

Physics: The study of energy – light, sound, heat, electricity and movement.

Astronomy: The study of stars, planets, moons, and everything in space.

Life science

Biology: The study of all living things.

Botany: The study of plants.

Zoology: The study of animals (and not just animals in zoos).

Medicine: The study of diseases and treatments.

Earth science

Geology: The study of rocks and the earth.

Meteorology: The study of the weather.

Ecology: The study of the environment.

Oceanology: The study of the oceans.

Here are the main topics in mathematics:

- Understanding numbers
- Calculating
- Fractions
- Measurements (length, mass, volume and capacity, time, money and temperature)
- Shapes, angles and symmetry
- Position and direction
- Statistics

Working as a group, discuss how scientists working in different areas of science can use the different topics in mathematics to help them.

Record your ideas on a large sheet of paper so that they can be shared with other groups.

Mountains



We're celebrating International Mountain Day!

The aim of International Mountain Day is to create awareness about the importance of mountains to all life, and to help those communities living and working in mountain environments.

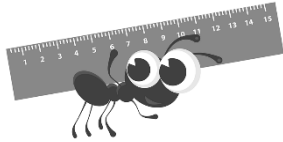
Use the statistics below to write statements about some of the world's longest mountain ranges and their highest peaks.

Mountain range	Continent	Length of range (km)	Name of highest peak	Height of highest peak (m)
Alps	Europe	1200	Mont Blanc	4810
Andes	South America	7242	Aconcagua	6961
Great Dividing Range	Australia	3621	Mount Kosciuszko	2228
Himalayas	Asia	2400	Mount Everest	8848
Rocky Mountains	North America	4828	Mount Elbert	4401
Tien Shan	Asia	2414	Jengish Chokusu	7439
Transantarctic Mountains	Antarctica	3541	Mount Kirkpatrick	4528
Urals	Asia / Europe	2500	Mount Narodnaya	1895

Use the back of this sheet to write more statements.

Can you write some statements involving fractions or percentages?

Trees



We're celebrating National Tree Week!

National Tree Week is the UK's largest annual tree celebration, marking the start of the winter tree planting season (November to March).

Below are four activities related to trees. Try some of them during National Tree Week.

You will need:

- map of the local area
- tape measure
- piece of string
- square paper

① A tree survey

Conduct a survey of the different types of trees in the local area (e.g. school grounds, local park, street, etc.). Record your findings on a simple map with a key. Record the number of different trees on a bar chart.

② The age of a tree

Using a tape measure or piece of string, measure the distance around the trunk (called the 'girth') about 1.5 m above the ground. Every 2.5 cm of girth is approximately one year's growth. So a tree with a girth of 50 cm is about 20 years old ($50 \div 2.5$). How old is the tree that you measured?



③ The area of the crown

A tree's crown (or canopy) is the branches and leaves that extend from the trunk or main stems. Walk around a tree and mark out where the outside edge of the leaves (or branches if the tree has lost its leaves) ends. Measure from the trunk to the edge of the crown in eight different directions (following the approximate points of the compass) and draw out the shape on square paper. Then use your diagram to work out the area of the tree's crown.

④ The height of a tree

Working as a pair or in a group, discuss and decide upon the best method for measuring the height of a tree. Write about your method, justifying why it is a reliable and accurate method. Then choose some trees of different heights and test out your method. Write about your results and the effectiveness of your method. How could you improve upon your method?