

Home Learning Week Commencing 6th July 2020

Maths – Shape

Day 1)

Investigating circle relationships

Sheet 1

Some children have been drawing and measuring circles. They measured the radius and diameter with a ruler, then the circumference as accurately as possible with a piece of string. They recorded their measurements in the table below.

Kayleigh makes a good generalisation, saying, "The circumference of the circles always gets bigger as the diameter gets bigger."

Jay has also spotted something interesting, saying, "The circumference of the circle with a diameter of 10cm was almost exactly 30cm – that's neat because 30 is 3 times 10."

Was Jay's observation just a coincidence or is there a pattern here? Investigate the ratio of the circumference of each circle to its diameter, filling in the last column of the table. You can use a calculator - divide the circumference by the diameter to give an accurate ratio.

Circle radius (cm)	Diameter (cm)	Circumference (cm)	Ratio of circumference: diameter
3	6	19.2	
3.9	7.8	22.9	
6.5	13	40.5	
2.3	4.6	14.5	
5	10	30.1	
8.4	16.8	53.7	
7.5	15	47.8	
3.5	7	22.0	

Use this space to tell Jay whether he's really onto something, or if his observation was a coincidence after all:

Day 2)

Quadrilateral sort

Sheet 1

Sort each of the shapes using the diagram - what is the name of each?

© Hamilton Trust

practice_shape_6229 _day2

Day 3)

Shape Unit 1



Problem solving and reasoning questions

Draw a circle and label the radius and diameter.
Explain how you could find the diameter.

Use damp string to measure the circumference of a small plate.
Now measure its diameter and calculate the circumference.
How close was your damp string measurement?

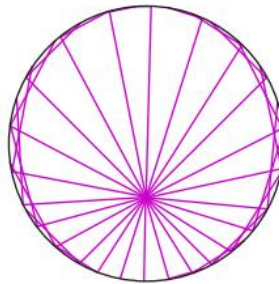
Mystery quadrilaterals

- I have one pair of non-equal parallel sides. What am I?
- I have two pairs of equal sides, but no sides are parallel. Two opposite angles are equal but not the other two. What am I?

Day 4)

Ellipse in a circle

1. Draw a circle of radius 5cm.
2. Pick a point about 1.5 or 2cm in from the circumference of the circle at the bottom. Draw straight line rays to the edge of the circle.
You need to draw about 24 of these.



3. Using a sharp coloured pencil draw a line at right angles to the ray, where each ray reaches the circle. Draw it so that this line touches the circumference of the circle.
4. Sometimes you will need to draw this line from the ray to the left and sometimes you will need to draw it to the right.
5. When you have drawn all 24 lines, you will have created an ellipse.

Compare your ellipse with your partners.
Discuss what you notice about the shape of the ellipse in relation to where you drew your original point.

Challenge

Create a new ellipse that is 'shorter and wider' or 'longer and thinner' than your first one.

All about the cubes

Sheet 1

1. Which of these would make an open cube (a cube with no 'top')?

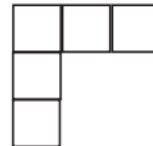
A



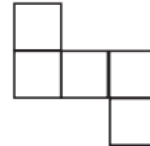
B



C



D



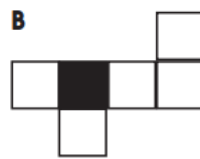
2. Here are some nets of cubes that have one face shaded black. When folded back into a cube, which four faces will be adjacent to the shaded face?

Shade them. The first one has been done for you.

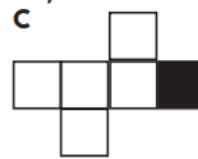
A



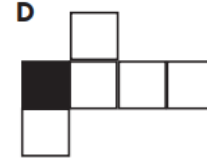
B



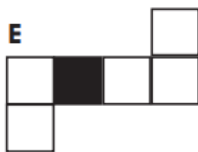
C



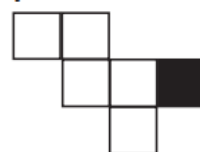
D



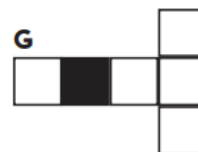
E



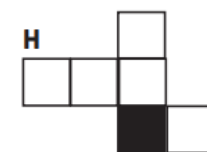
F



G



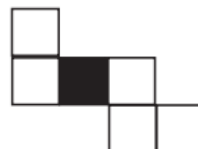
H



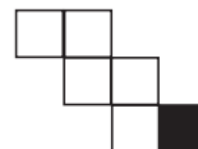
I



J



K



Did you discover a pattern or rule that helped?

3. Here are some shapes describing themselves. Which one is the cube?

- I have 4 vertices, 6 edges and 4 faces.
- I have 12 vertices, 18 edges and 8 faces.
- I have 6 vertices, 12 edges and 8 faces.
- I have 8 vertices, 12 edges and 6 faces.

4. Here are some more shapes describing themselves. Which one is **not** a cube?

What shape is it?

- Each corner of each of my faces is a right angle.
- I have 3 pairs of parallel faces.
- Every point on my surface is an equal distance from my centre.
- I am a regular polyhedron with 6 faces.

Challenge

Can you make up some more puzzles like these about cubes?

Extension:

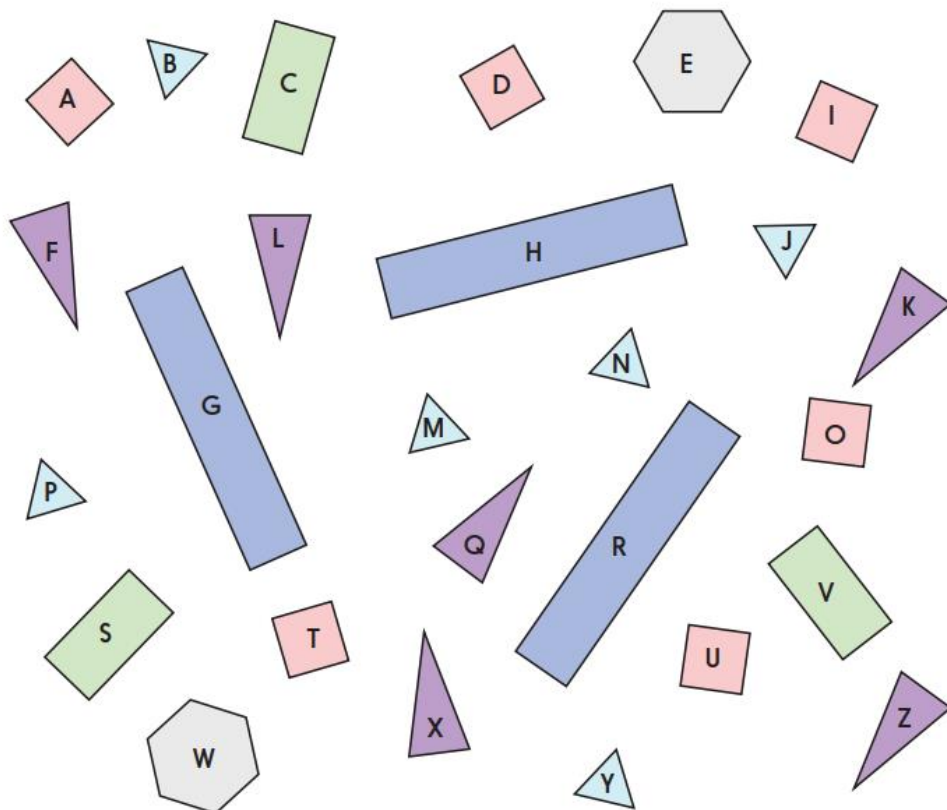
Faces of prisms and pyramids

Sheet 1

What different 3D shapes can you make using the faces below?

Write the name of each shape (e.g. triangle-based pyramid) and list the faces that would be on it. How many different 3D shapes can you find?

All shapes are drawn to scale.



Challenge

Tyrone wants to make a triangular prism. He uses G, L and F.
What shapes will he need to draw to be the other two faces?

Draw the net of his prism.



When I grow up....

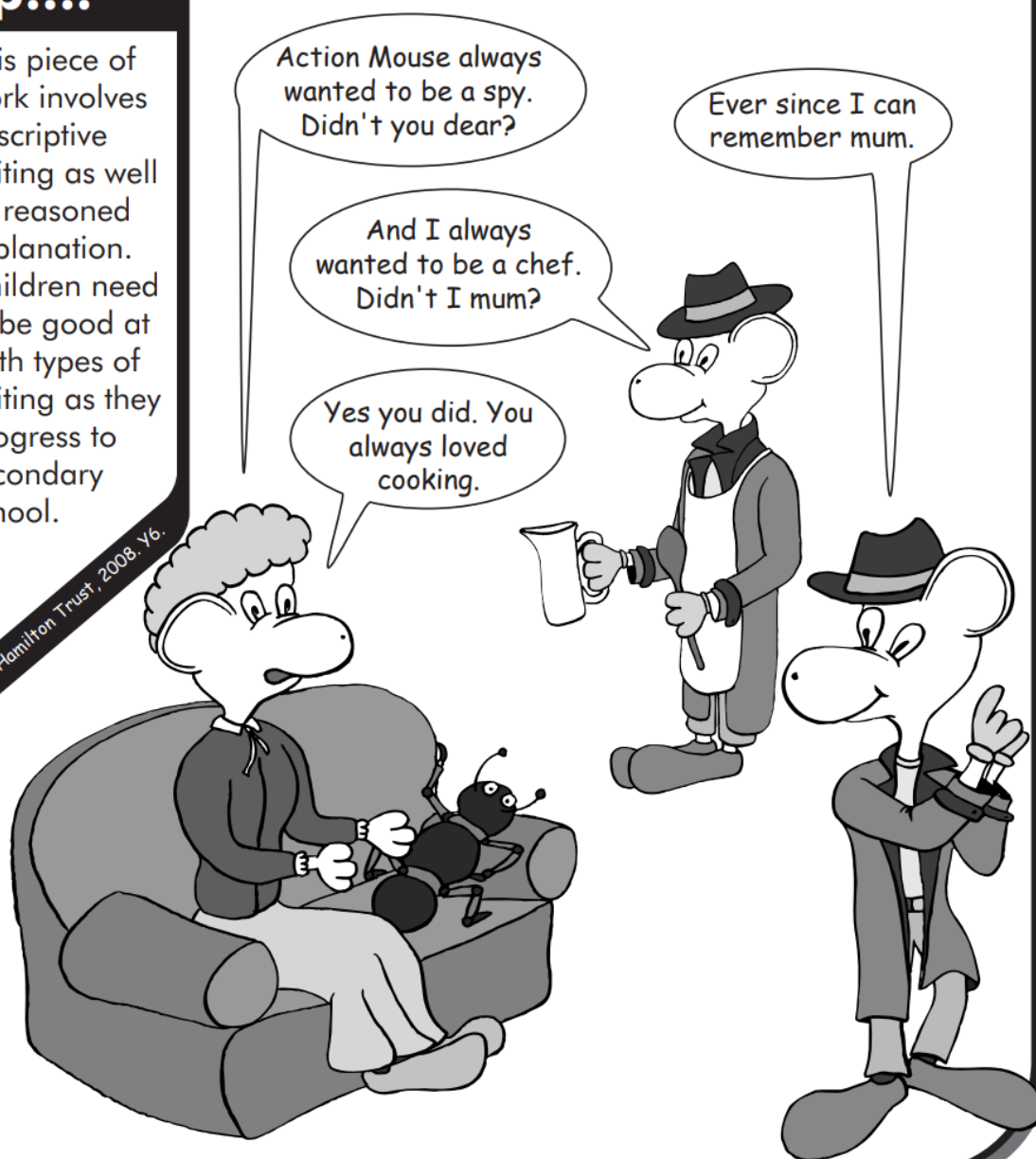
This piece of work involves descriptive writing as well as reasoned explanation. Children need to be good at both types of writing as they progress to secondary school.

© Hamilton Trust, 2008. Y6.

What to do...

What will you be when you grow up?

1. Write a description of what you would like to be giving reasons.
2. Relate these reasons to things you enjoy doing, your hobbies, interests and things you are good at!



SPaG Exercises: Apostrophes

Objective 1: To identify apostrophes used to show contraction and possession

Set A

Put a tick to show whether the apostrophe in each sentence is used for **contraction** or **possession**.

	Apostrophe for contraction	Apostrophe for possession
1. This is our island's best music.		
2 You wouldn't hear it anywhere else.		
3. I don't want it to ever stop.		
4. What is that singer's name?		
5. She's got such a beautiful voice.		
6. I'm going to cry.		
7. Watch the dancer's feet carefully.		
8. They'll spell out a word in the dust.		
9. Can't you read what it says?		
10. Who'd like some juice?		
11. It's our favourite drink.		
12. Not that one. That is Amir's.		
13. You've drunk my juice!		
14. Magda has drunk a week's supply of juice.		
15. She'll be needing a wee soon.		
16. Be careful of old Toby's dog, Magda.		
17. He is the island's fiercest dog.		
18. Luckily, that dog's weakness is music.		
19. If you sing he'll just lie down.		
20. It's actually quite fun this kind of singing.		
21. We're having such a nice day!		
22. I wish we'd stay forever.		
23. Isn't this the best place ever?		
24. And aren't these people the nicest ever?		
25. Why is it called snake's jungle?		
26. Because there're lots of snakes in there.		
27. Is there a people's jungle we could go to?		
28. I'm not sure about this jungle walk.		
29. Darryl's eyes are wide with terror.		
30. Calm down mate, that's only a vine.		

Apostrophes for Contraction and Possession

Read this extract from the story 'Cole's Kingdom'. Use one of the words from the box below to fill in the gaps. Colour-code the word with apostrophes for possession and the words with apostrophes for contraction. You will need to use some words more than once.

"[] a bit like a journey to another world, [] it?" said Cole, craning over his sister, Mara, to catch a glimpse of Grandma [] house through the trees. "[] like a window through time..."

"[] trying to sleep," said Liam, as Dad swung the car round a tight bend, causing the wheels to skid.

Cole ignored his brother. "I mean, Grandma [] house must be a hundred years old at least. [] so crumbly."

"Nearly three hundred," Mum corrected.

"She [] have a proper TV, either – just that boxy thing, and her phone is stuck to the wall. I mean, it has buttons! [] like she lives in a museum."

"Well, [] tell Grandma that, for [] sake," said Mum. "[] hurt her feelings."

*

Cole told Grandma Jenny about his friend, Leo, and his birthday party at the trampoline centre that had ended with a trip to A&E and [] arm in plaster.

"Cole," said Mum, "[] dying of thirst out here." She brought in another armload of empty boxes from the car, her face beaded with sweat. "Stop talking [] ear off. Could you get us something to drink, please?"

Jenny's	You'll	goodness'	isn't	Leo's	Grandma's
we're	It's	don't	doesn't	I'm	

Underneath each word in the table, write the longer form for the words that use an apostrophe for **contraction**.

Challenge:

Rewrite these sentences, replacing the longer phrases with contractions.

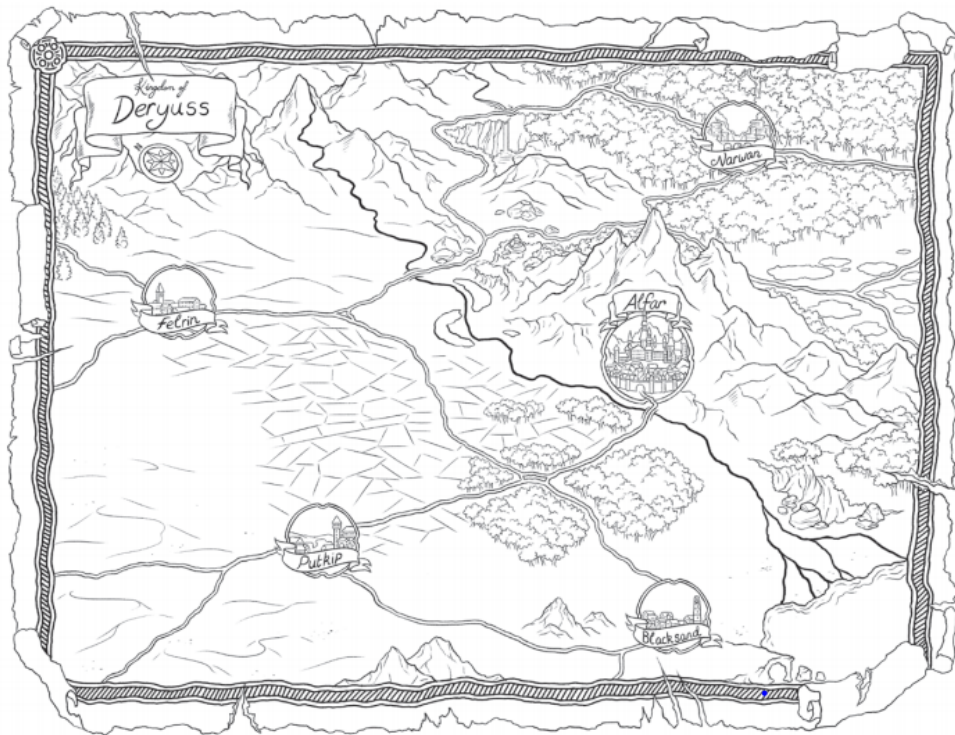
1. "Please do not tell me that I have to listen to any more of your 'music'," Mara moaned.

2. "You are welcome, Cole." She smiled in the least friendly way possible.

3. "I have got to practise, you know."

4. "That is more like it!" Mara grabbed her bag and sprang up the steps to the front door.

5. For someone who loved books, she could not stand it when Cole came up with his own unique brand of story.



Captain Tom Moore

Captain Tom Moore is the war **veteran** who made headlines around the world in mid-April 2020, when he pledged to raise money for the National Health Service (NHS), by walking 100 laps around his garden before his 100th birthday on April 30th.

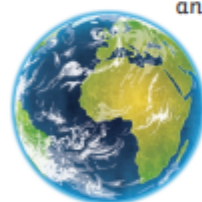
The Challenge

Captain Tom has long been a supporter of the NHS. He had spent some time in hospital after a hip replacement a few years ago and has been following the news about the NHS, as they battle to treat patients during the COVID-19 crisis. He decided to set himself the challenge of completing 100 laps of his 25 metre garden, by walking 10 laps each day, with the help of his walking frame and finishing before his 100th birthday. Captain Tom hoped to raise £1000 for NHS Charities Together.



Worldwide Support

Captain Tom's challenge was reported by his local news and word soon spread about his amazing effort. People very quickly took Captain Tom to their hearts and his story was shared more widely, including on the national news. As more people heard about his challenge, they donated money to the cause. Within a day, Captain Tom had exceeded his target.



Captain Tom completed 100 laps (his last ten, with a **guard of honour**) two weeks before his birthday, so decided to increase the number of laps he walked to 200.

Fundraiser and Record Breaker

To help celebrate reaching 100 laps, singer Michael Ball, the NHS Voices of Care Choir and Captain Tom released a version of the song 'You'll Never Walk Alone', which went straight to number one in the singles charts. Captain Tom (aged 99 at the time) is the oldest person ever to reach number one and the single is

Captain Tom Moore

the fastest selling of 2020 so far. Every single sold raises more money for the charity. Captain Tom also holds the record for the largest amount of money raised on a charity walk, by an individual. The money will be used to fund community groups that help support patients when they have left hospital, as well as wellbeing packs for NHS workers.

Biography

Thomas Moore was born in Yorkshire on 30th April 1920.

As an adult, he joined the army and served as a British Army officer in the Second World War. During his time in the army, Captain Tom was awarded three medals, which he has worn whilst completing his fundraising laps. A short **documentary** has been made about his military career and is due to be televised in early May 2020.

When he was younger, his hobbies included motorcycle racing and he won several competitions.

He currently lives with one of his two daughters and her family in Bedfordshire.

He has had so many birthday cards sent to him from around the world, Royal Mail have had to re-route his post to a special collection box and a group of volunteers have been employed to help open the cards, which will go on display at a local primary school that Captain Tom's grandson attends.

No-one has been more surprised by his success than Captain Tom himself. 'Never in my wildest imagination did I think this would be possible,' he exclaimed.

Captain Tom in Numbers

£1000 - The target amount Captain Tom originally hoped to raise for charity.

24 hours - The time it took to reach his target.

£13,000,000 - The amount Captain Tom had raised by the time he completed 100 laps.

82,000 - The number of copies his hit single sold in the first week.

100,000 - Birthday cards have been sent to him by the public.

1.3 million - People had donated money to his campaign before the final week of April.

Pride of Britain

Captain Tom has been called a national treasure by the public and was awarded the Pride of Britain Award. This award is given to people who have demonstrated great courage or inspired people with their campaigning. Captain Tom had received several hundred thousand nominations from the public and a judging panel agreed that he was more than worthy of receiving the award.

For his 100th birthday, Captain Tom is being honoured with a special postmark from the Royal Mail. All letters sent during the week of his birthday, will be stamped with a postmark that reads, 'Happy 100th Birthday Captain Thomas Moore NHS fundraising hero 30th April 2020'.

Glossary

veteran	An ex-member of the armed forces.
guard of honour	A group of soldiers arranged in a row for a special occasion
documentary	A factual television or radio programme.

Captain Tom Moore Questions

1. Match the numbers to the statements.

£1000	The amount raised by 100 laps.
200	The original target set.
100,000	The number of birthday cards sent to Captain Tom.
£13,000,000	The new target of laps Captain Tom set for himself.

2. Number the events to show the order in which they happened.

- ☐ Captain Tom began his challenge.
- ☐ Captain Tom released a single.
- ☐ Captain Tom finished his 100 laps.
- ☐ Captain Tom celebrated his 100th birthday.

3. Read 'The Challenge'. **Find** and **copy** one word that likens the struggle of NHS staff during the COVID19 crisis to that of soldiers in a war.

4. Who collaborated with Captain Tom on the single 'You'll Never Walk Alone'?

5. Name one way that Captain Tom has been recognised for his achievements.

6. Why do you think Captain Tom wanted to raise money for the NHS?

Captain Tom Moore Questions

7. Give **two** examples of how Captain Tom has broken world records.

8. Describe Captain Tom in **three** words and explain your choices.

9. How do you think Captain Tom felt when he heard that he had reached his target of £1000 in just a day? Explain your answer.

10. Write a summary of Captain Tom's achievements.

Day 5) Writing



Footsteps could be heard in the distance. Not careful, quiet footsteps, like those someone like you might make as you move about your living room. No. These footsteps were different: they shook the very earth with every colossal stride. He was coming...

Continue the story...

Coloured Celery

Science Experiment



Method

1. Pour some water into the glass.
2. Add a few drops of food colouring to the water and stir to distribute the colour.
3. Cut 2cm off the bottom of the celery stalk and put the stalk into the glass of coloured water.
4. Leave the glass and celery in a sunny spot for a couple of hours or overnight.
5. Observe the results.

You will need:

Celery stalk with leaves
Tall glass
Water
Food colouring
Scissors

We hope you find the information on our website and resources useful. The activities set out in this resource are potentially hazardous. The activities are not suitable for all children and adult supervision may be required for some of the activities. It is your responsibility to assess whether the children in your care are able to safely carry out the activities and whether the children require adult supervision. You are responsible for carrying out proper risk assessments on the activities and for ensuring that activities can be carried out safely. We are not responsible for the health and safety of your group or environment so, insofar as it is possible under the law, we cannot accept liability for any loss suffered by anyone undertaking the activity or activities referred to or described in this resource. It is also your responsibility to ensure that those participating in the activity are fit enough to do so and that you or the organisation you are organising for has the relevant insurance to carry out the physical activity. If you are unsure in any way, we recommend that you take guidance from a suitably qualified professional.



Science Experiment

Coloured Celery

- What colour are the leaves of your celery?
- Can you put your celery into the glass of coloured water?
- Can you find a sunny spot to put your experiment?
- What colour are the leaves of your celery now?
- What has made them change colour?
- Which parts of the plant use lots of water?

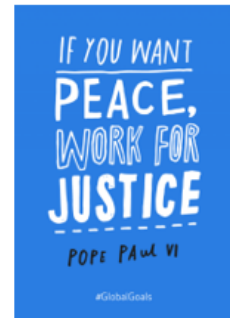
Topic 1)

Lesson 16 Themed Learning: Peace, Justice and Strong Institutions



Learning Outcomes:

- To understand the impact that fleeing from a desperate situation would have on someone's life
- To empathise with situations that others find themselves in



The Power of Peace

Activity 1) Holiday Bag or Get-Away Bag?

Imagine you are going on holiday tomorrow, what would you pack? – you have 5 minutes to write a list.

Now your situation has changed.. you need to escape from your home tomorrow. You do not know whether or if you will return. Pack a case with the things you would take. Remember you can only pack 1 suitcase and you will be carrying it as you have to leave on foot. – you have 5 minutes to write a list.

Compare your lists. What has changed? Why?

Did you think about birth certificates, identification, essential items, etc?

Activity 2) What is Peace?

Write down what you think peace is. Describe what it looks like to you.

If you could draw it, what would it look like?

Activity 3)

Research one of the following people: Karim Wasfi, Leymah Gbowee, Mahatma Gandhi, Malala Yousafzai, and Nelson Mandela.

Answer the following:

Who is your peaceful activist?

What was their goal?

How did they achieve or attempt to achieve their goal?

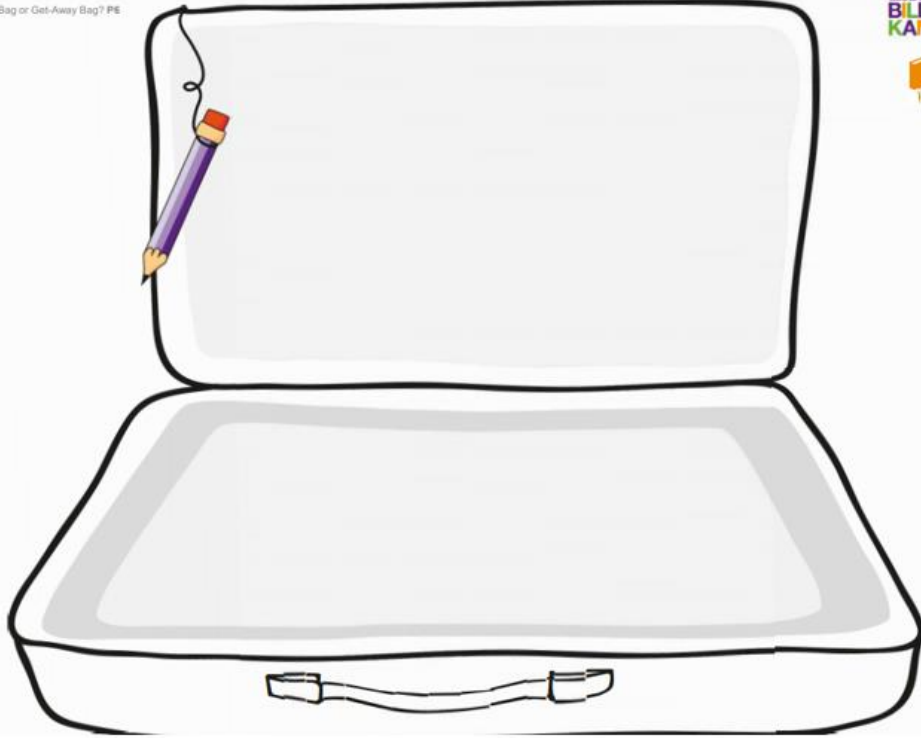
Why are/were their methods peaceful?

What characteristics did they have?

Activity 4)

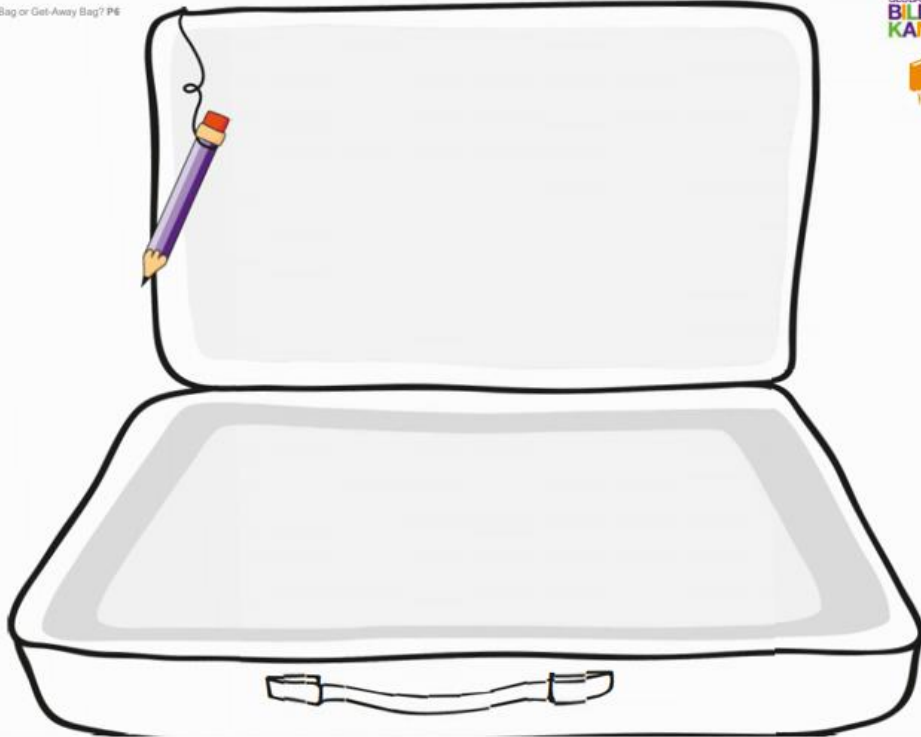
How can you contribute to making the world a more peaceful place?

Holiday Bag or Get-Away Bag? P6



GLOBALE
**BILDUNGS-
KAMPAGNE**
THE
WORLD'S
LARGEST
LESSON

Holiday Bag or Get-Away Bag? P6



GLOBALE
**BILDUNGS-
KAMPAGNE**
THE
WORLD'S
LARGEST
LESSON

Activity 2) PE

As we have missed sports day this year can you hold you own. Your event should include one (or more) of the following:

- Get outside
- Be active
- Showcase a sporting talent
- Work as a team
- Enjoy participation and competition
- Celebrate each other by cheering on their team

These things can be done on your own or with your family if they are willing.

