

#### Kingfisher Class Home- Learning- Summer 2- Week 4- Maths

#### Monday: Shape and angles



Starter: Can you Simplify the fractions below:





#### Main Activities all about shape...

Set up a carousel of activities in your home:



Activity 1:

- 1. How many sides and angles do hexagons have?
- 2. How can I tell if a shape is regular or irregular?
- 3. What is a polygon?
- 4. Can you name and describe three types of triangle?

Activity 2: Draw a circle and label all the parts of it (centre, circumference, diameter, radius).

Activity 3: Find missing angles of quadrilaterals (see worksheet below)

Activity 4: Find missing angles of triangles, straight line and around a point. (see worksheet below)

#### Activity 3:

Remember that the angles in a quadrilateral add up to 360°. The angles are not drawn to scale, so do not try to measure them!



Find the value of each angle marked with a "?"

#### Activity 4:

Work out the missing angles.





#### Tuesday- Angles- You will need a protractor later in this lesson.

<u>Starter-</u> Can you fill in the missing boxes (?) with either the correct fraction, decimal or percentage- some have been done for you. Each row needs to have the equivalent fraction decimal and percentage. The bottom row has been completed for you to help you.



Fraction	Decimal	Percentage
?	0.2	?
$\frac{1}{4}$	?	?
?	?	100%
?	0.75	?
<u>3</u> 10	?	?
?	0.1	?
<u> </u> 5	0.5	20%

Where	Angle sum
Straight line	180°
Round a point	?
Triangle	?
Quadrilateral	?
Pentagon	?
Hexagon	?
Octagon	?

← Can you fill in the missing boxes with the correct angle sum, the first one has been done for you. If you need to research this, that is fine!

#### Can you identify each angle?





#### Which is an acute, right, obtuse, or reflex angle?



Measuring and calculating angles- You will need a protractor for this part of the lesson.













#### Wednesday- Area and Perimeter

Perimeter is the distance round the outside of the shape. We add the length of every side to get the total distance. Perimeter is a measure of length so is just measured in mm, cm, m or km. Perimeter is measured in just one dimension.

Area is measured in square units (mm<sup>2</sup>, cm<sup>2</sup>, m<sup>2</sup>, km<sup>2</sup>, etc). The area of a shape is measured in two dimensions, e.g. length and width, which is why it has squared units.

Area of a rectangle:



Area of a parallelogram:

Area of a triangle:

Volume of a cuboid:



1. Can you work out the area and perimeter for the: rectangle, parallelogram, and triangle.

Remember when you are calculating the perimeter, you need to add all the sides. Some measurements are missing, so you will need to work these out first before adding.

2. Can you work out the volume of the cuboid?

Look at these shapes and fill in the missing measurements. Remember to use the correct unit of measurement (mm, cm, m or km).

- 1) This square has a perimeter of 4.4cm. How long is each side? Show how you worked this out:
- 2) This triangle has a perimeter of 81m.
  How long is the missing measurement?
  Show how you worked this out:

3) What is the perimeter of a hexagon where each side is 24.6cm long?



Show how you worked this out:

4) This parallelogram has a perimeter of 51.4 km. If side A is 13.1m long, what are the lengths of the other sides?



A farmer has an odd shaped field that he wants to put a fence around.



Work out the area of the following shapes by dividing them into rectangles. They are not to scale.



What is the volume of this brick?



<u>**Thursday:**</u> 24-hour clock and calculating time intervals.

Starter Maths:



### London Bus Times

301	Mon	Mondays to Thursday										
Greentown, St Hilda's Church	0640	0648	0655	0702		0743		1059		1253		2005
Greentown Square	0644	0652	0659	0706	Then	0748	Then	1105	Then	1300	Then	2010
Green Garden Shopping Centre	0647	0655	0702	0709	about	0752	about	1109	about	1304	about	2013
Green Hill Park	0653	0701	0709	0717	overv	0800	avary	1117	overv	1314	every	2020
Grand Concert Hall, Greentown	0658	0706	0714	0723	every	0808	every	1125	every	1322	every	2027
Kidderston, High Street	0701	0709	0718	0727	7-8	0812	5-6	1130	6-7	1327	6	2031
Exhibition Center, Kidderston	0705	0714	0724	0733	minutes	0819	minutes	1137	minutes	1335	minutes	2037
Hammerford, Bus Station	0709	0719	0729	0738		0825		1143		1341		2042

- I. How often does the bus go?
- 2. What time does the first bus leave from St Hilda's Church?
- 3. What time does the last bus arrive at Hammerford Bus Station?
- 4. If you get on the bus in Greentown Square how long does it take to get to Kidderston High Street?

#### Time word problems



#### Remember when Miss Brown says: 'Time use a number line!'



- 1. Isla and Indigo takes the train to Edinburgh. They set off at 09:48 in the morning and arrive at 11:37. How long was their journey?
- 2. Will travels on a coach to Manchester with Oscar R and Harry A. Their coach sets off at 08:29. The journey is 2 hours 52 minutes long. Their friends Henry, Jack G and George drive there and arrive 18 minutes earlier. At what time does Henry, Jack G and George arrive?
- 3. Evie, Connie and Isobel drive to Cardiff. Their journey takes them 2 hours and 41 minutes. They arrive at 11:25. What time did they set off? Their friends Lorna and Nina set off to Cardiff 15 minutes after. At what time did Lorna and Nina set off?
- 4. On holiday, Oscar M cycles to Killarney. He sets off at 14:27 and arrives at 17:09. However, he had to stop on the way for 22 minutes to repair a puncture for his friends Harry C and Edward. How long would his journey have been if not for the puncture?
- 5. Martha, Emma and Miriam climb up Ska Fell Pike. The climb takes them 3 hours and 33 minutes. They spend 20 minutes at the top. After this, they climb down the mountain again, which takes her 1 hour 41 minutes. If they arrive at the bottom of the mountain again at 16:35, at what time did they start their journey up the mountain?
- 6. Jemima, Sybilla and Millie go snorkelling in the Caribbean. They set off to the reef at 10:18. Their journey to the reef takes 26 minutes. When they arrive at the reef, they go snorkelling for 3 hours 43 minutes. At what time do they complete snorkelling?

- 7. Whilst on holiday in Egypt, Alice and Jessamy decide to go on a camel ride. They set off at 14:36 and her ride goes on for 1 hour and 36 minutes. When does her ride end? If the sun sets at 17:09, how long has she got to get home before the sun sets?
- 8. Willow and Charlotte go on a walk on the Isle of Wight. When they set off, their watch tells them that it is 10:24. They walk is 2 hours 28 minutes long. However, upon arrival, they find that their watch is 11 minutes fast. At what time do they really arrive?
- 9. Jack C and Lewis go on a space walk from the ISS which lasts 2 <sup>3</sup>/<sub>4</sub> hours. They complete their spacewalk at 23:31. If it took them 39 minutes to put on their spacesuit before the walk, at what time did they start to put their suits on before the spacewalk?
- 10. Sonny and Max does a tightrope walk across Niagara Falls. They set off at 09:21. The walk would normally take Them 1 hour 47 minutes, but on their way across they stop for a picnic for 27 minutes. At what time do they arrive at the other end of the tightrope?
- 11. Ally and Immy decide to abseil down the Shard in London. The journey down normally takes 33 minutes. However, on their way down, they stop for 18 minutes to take some photos. Eventually they arrive at the bottom of the Shard. Looking at their watch they see that it is now 12:15. At what time did they set off?



Friday: Revise reading and interpreting different types of data



Starter:

#### Different ways to present data:

Tables – where information is presented on a table, sometimes using a tally.

Bar charts – where information is presented on a graph with bars drawn.

Pictograms – where symbols are used to show data.

Line graphs — where a line is drawn by marking different points (coordinates) on a graph.

Pie charts — where amounts (fractions or percentages of the whole) are shown as sectors of a circle.

### **Cross-country running times**

29 mins 59 secs or less	
30 mins to 59 mins 59 secs	
l hour to l hour 29 mins 59 secs	
I hour 30 mins to 2 hours	₩1

- I) How many children ran in total?
- 2) What was the most common running time?
- 3) How many children took more than I hour to complete the course?
- 4) How many children completed the run in less than I hour 30 minutes?

## **Favourite hobbies in Year 6**



- I) How many more children play an instrument than volunteer?
- 2) What is the difference between the most popular and least popular hobby?
- 3) What are the two most popular hobbies?
- 4) How many children in total do a sport-based hobby?

## **Preferred reading genre**

general fiction	
science fiction	
horror	
crime	
fantasy	
romance	
nonfiction	



- I) How many people were surveyed in total?
- 2) What is the least popular genre?
- **3**) What is the difference between the most popular genre and the second most popular?
- 4) How many people prefer fiction to nonfiction?

#### Optional extra maths lessons for the week:

# **5 on the Clock**



On a digital clock showing 24-hour time, over a whole day, how many times does a 5 appear?

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Is it the same number for a 12-hou clock over a whole day?

## nrich.maths.org



## Methods of donating money to charity

- I) What is the most common method of donation?
- 2) What is the difference between the most and least common method?
- 3) What is the percentage of respondents who do not donate cash?

### Car journey to the seaside



- On average, how fast was the car travelling for the first part of the journey (A to B), in km/h?
- 2) What happened between points B and C?
- 3) If they left at 3:15 pm, what time did they arrive at the seaside?
- 4) How long would the journey have taken if they had not stopped?
- 5) On average, how fast was the car travelling between points C and D, in km/h?



- I) What has been the increase in percentage of the number of detached houses owned between 1801 and 2001?
- 2) In which year did more people own than rent terraced houses?
- 3) In which year did more people have rented apartments? What is the percentage difference?
- 4) In which type of housing has there been the greatest change?

#### **Optional extra maths lessons for the week, using Oak National Academy:**

#### Shape and Angles lessons:

- 1. <u>https://www.thenational.academy/year-6/maths/find-the-value-of-missing-angles-year-6-wk3-1</u>
- 2. <u>https://www.thenational.academy/year-6/maths/compare-and-classify-</u> <u>triangles-year-6-wk3-2</u>
- 3. <u>https://www.thenational.academy/year-6/maths/compare-and-classify-</u> <u>quadrilaterals-year-6-wk3-3</u>
- 4. <u>https://www.thenational.academy/year-6/maths/find-unknown-angles-in-</u> triangles-year-6-wk3-4
- 5. <u>https://www.thenational.academy/year-6/maths/calculate-unknown-angles-in-quadrilaterals-year-6-wk3-5</u>

#### Kingfisher Class Home- Learning- Summer 2- Week 4- English

**Monday:** To identify descriptive weather vocabulary.



Starter:

• Re- cap on chapter 4- skim.

• Scan through chapter four. Each time you find an interesting, vivid description of the weather write it down neatly.

e.g. 'The wind was bitter cold.'

'Driving hail drove us often into the shelter of rocks.'

Main:

- Read chapter five alone or read aloud to a family member (record in reading record).
- Roll a die to determine how many sentences you have to summarise chapter five.
- Write the number in a circle somewhere on your page.
- Spend 5 minutes identifying the key parts of Chapter 5.
- Then write your summary neatly, ensuring you cover the most important aspects first.
- Create a book review of the book so far- you can use the book review below or create your own.





**Tuesday:** To identify and explain how a character's emotions change throughout a chapter. To create a TV news report.

Starter:

- Skim and scan over chapter 5. Identify at least three emotions that you think Ashley feels during this chapter.
- Write the name of the emotion as a sub-heading, and then explain why you think Ashley feels like that.
- Beneath your explanation, copy a quotation from the text to support your view.



#### <u>Main</u>

- Read chapter six alone or read aloud to a family member (record in reading record).
- You are a reporter for 'Yeti News'!
- Over the next few days, you will be writing a script for a TV news report about Ashley's first day with the yetis.

You will need to include:

- The significance of Ashley's arrival to the yetis
- What happened between Ashley and Little Red
- How Ashley's first day with the yetis ended
- What you think will happen going forwards.

Eventually when you have completed your written report, if you wish to, you could film them and with permission from your parents send them via Purple Mash 2email for me to see!



# Today is a planning day, so please get planning your ideas! You can use the planning format below to help or you can create your own.

What I need to include:	<u>My ideas</u>
The significance of Ashley's arrival to the yetis.	
What happened between Ashley and Little Red.	
How Ashley's first day with the yetis ended.	
What you think will happen going forwards.	

Wednesday: To create a TV news report.

Starter:

• Re- cap on yesterday's plan- are you happy with it? Or would you like to edit or add things?



Remember today you are a reporter for 'Yeti News'! and you are writing a script for a TV news report, reporting about Ashley's first day with the yeti's.

You need to include:

- The significance of Ashley's arrival to the yetis
- What happened between Ashley and Little Red
- How Ashley's first day with the yetis ended
- What you think will happen going forwards.

I would recommend a quick edit after each paragraph. It might help to read aloud to yourself, it helps me when I mark your writing! ©

## Thursday and Friday: To edit and improve, write in neat and perform my TV report.

These activities are over two days.

Today you could look at your writing checklist (if you have it) don't worry if not and tick off everything you think you have achieved, well done for the objectives you already have ticked off and think when your editing 'how can I include the rest?'



The best way to do this is to read aloud or use monkey ears to read to yourself quietly. When you are reading to yourself look for any spelling, punctuation or grammar mistakes; check for any missing words and also think of ways you could improve you writing. Like in school you could use a purple polishing pen to do this.

After you have finished editing, you could write it up neatly or type it onto the computer.

When you have finished your TV report and feel proud of your writing, then is the time to film it, if you would like to and have permission from an adult. I cannot wait to see some of your reports on Purple Mash.

Think Polish Write



#### <u>Science</u>

# Isaac Newton's Colour Experiments Fact Sheet

Isaac Newton (1642 - 1727) was a famous scientist and mathematician. His experiments into light and colour were extremely influential in informing our understanding of these areas today.

Newton started looking into the "celebrated phenomenon of colours" in the late 1660s. At the time, the deadly Bubonic Plague was rife in Cambridge, where Newton usually worked, so he conducted his first experiment at his home in Lincolnshire.

People then believed that colour was caused by a mixture of light and dark, and that red was the lightest colour with the least amount of dark added to it, while blue was the darkest colour, the last step

before black. They also thought that prisms actively coloured light. Newton set out to prove this view wrong in what was to become known as his crucial experiment. He used a hole in his shutter to direct a beam of sunlight into his room, and refracted this beam using a prism. He was able to see the spectrum of colours form, and then used another prism to refract the separated rays of coloured light back into a ray of white light. This proved that light is made up of colours; the prism simply allows them to be seen.

Newton coined the phrase 'the colour spectrum', and he chose to split the spectrum into the seven colours we know today; red, orange, yellow, green, blue, indigo and violet. Although the spectrum is continuous, with no boundaries between each individual colour, he selected the number seven because he believed it to be a special number.

He was able to show that each colour has its own angle of refraction. He used this to prove that an object's colour is a property of the light reflecting off it, rather than something inherent within the object itself.

Newton continued to carry out further investigations into light and colour, and published his book 'Opticks' in 1704. Some <sup>5</sup>

scientists consider this the most influential book of that century, Newton felt that he learnt a lot from other and it explained how raindrops refract sunlight to cause scientists, such as Galileo and Copernicus. rainbows for the first time.



Newton's sketch of his crucial experiment.



Isaac Newton: "If I have seen a little farther than others, it is because I stand on the shoulders of giants." Use the Fact Sheet above to answer these questions about Isaac Newton and his discoveries.

- 1. When was Isaac Newton born?
- 2. Where was his home?
- 3. Why did he conduct his experiment at home?
- 4. How did people in the 1660s believe colours were created?
- 5. What did Newton use to create a beam of light?
- 6. What did his 'crucial' experiment prove?
- 7. Why did Newton split the spectrum into seven colours?
- 8. What was Newton's book called and what did it explain?

#### Science, DT and ART project.

Over this week, I would like you to play with light and shadows to create your very own shadow theatre.

Watch the shadow puppet video link below:

https://www.bbc.co.uk/bitesize/clips/z87jmp3



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## Shadows

Shadows are formed when an opaque object blocks a ray of light. Is a shadow always the same shape as the object that casts it? A shadow can change size depending on the distance the object casting it is from the light source. Shadows can also be elongated or shortened depending on the angle of the light source.

However, a shadow is always the same shape as the object that casts it. This is because when an object is in the path of light travelling from a light source, it will block the light rays that hit it, while the rest of the light can continue travelling. Therefore, the shadow it casts is exactly the same shape.

## **Shadow Theatre**



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For this challenge, you will need to produce a shadow puppet show. You will perform a short scene involving the scientists Isaac Newton You may choose to create shadow puppet props of key objects - you could make a prism, or use coloured tissue paper to make a shadow of the visible spectrum.

Think about how you can use your shadow puppets creatively - moving them closer to the light source to make them look bigger, or tilting them to change the angle.

## **Shadow Theatre**

Use cardboard, straws or craft sticks to make your shadow puppets- Be as creative as you can be with the resources you have in your home already.

Remember, your puppets will not need to have features or detail as your audience will only see their shadows in the performance.

You may want to film you shadow show for Miss Brown to see, you can attach your film to 2email on Purple Mash.



## Mountain Weather

I can describe a mountainous climate.

Use the Internet to find today's weather forecast for Lobujya, Nepal (The Himalayas).

Weather

Temperature (°C)

Rainfall (mm)

Wind speed (km/h)

Look at the chart below:

	J	F	М	А	М	J	J	Α	S	0	Ν	D
Average temperature (°C)	-10	-8	-5	-1	3	7	8	8	6	0	-4	-7
Average precipitation (mm)	8	13	15	18	20	51	86	96	41	24	5	q
Average wind speed (km/h)	6	8	٩	٩	8	8	7	7	6	5	6	6

Is the weather in Lobujya typical for today?

How would you summarise the general climate in Lobujya?

#### RE



#### This week in RE we will be finding out more about the synagogue.

The synagogue is the Jewish place of worship, but is also used as a place to study, and often as a community centre as well.

#### Activity:

I would like you to draw the different parts of the synagogue building, along with captions to explain what each part symbolises and why it is special.

Extension: I would then like you to think about the the similarities

and differences between a Christian Church and a Synagogue- you can draw or write about this.

I am happy for you to get creative and present this information in any way you wish to. Remember I would love to see your learning, so please email me on Purple Mash via '2email'.



#### Computing

Please log on to Purple Mash to see the 2do's set for the week (Please do at least one



you feedback). Also, remember to log onto My Maths weekly and practise times tables on Times tables Rockstars.

← Miss Brown's quote of the week.

PSHE

2do- Make sure you press the 'hand in' button so that I am able to give

## Making Negative Thoughts into Positive Thoughts

Often, we think negatively about a situation or an event that has happened or is about to happen. When we think negatively, we are likely to carry on thinking negatively, which helps to make the thought more powerful. When this happens, it is really difficult to find positive thoughts. This can lead to a one-sided view of a situation or event which is often not a true judgement.

Please complete the table below so you can see how you can change negative thoughts into positive thoughts.

Negative Thoughts	Positive Thoughts
My friends don't like me anymore because I can't go to the party on Saturday night.	
I am not good at maths because I only got 16 out of 20 correct in my test.	
I don't want to move house as I won't make any new friends and I will be lonely.	
My new school won't be as good as my current school.	

### **Making Negative Thoughts into Positive Thoughts**

Now you have completed those examples, complete the table below with your own negative and positive thoughts.

Think what positives you can see from the situation and how you can think more positively.

The more positives you can find, the more positive you will think, as the negative thoughts will be reduced and the situation will appear more balanced.

Negative Thoughts	Positive Thoughts

#### Art (Take One Picture) and Music

This week, I would like you to create your own music digitally on Purple Mash using 'Busy Beats', which looks like this:



Some of you have already been creating some fantastic pieces of music on Purple Mash and have a good understanding of how to use it. So now I would like you to put these skills into practise. I would like you to create a piece of music that could go alongside our Take one picture. At the beginning of this project we created a sound scape from instruments and our voices. I am excited to take it to the next level through digital music. The picture below is what the music should be based around, Good luck, I cannot wait to hear these!



This week I would like you to log on to

the SLS platform (with the help of an adult, if you need it). Choose an e- book you would like to read at the right level for you. Read independently or with an adult. When you have finished reading all or part of the book, complete one of your learning tools. Use SLS whenever you want to after this, Miss Brown has noticed lots of amazing books! Enjoy!



Just to let you know that I have planned a lot of activities but please do not feel pressured to do them all. Do what is right for you and your family. I would rather you have too much then too little but it doesn't mean you have to complete everything or you can save it for when you feel like doing something to keep you occupied. Please get outside in the fresh air if you can, in a safe way and be helpful to your family. Remember you can use the National Oak Academy lessons if you wish to, using this website: <u>https://www.thenational.academy/onlineclassroom/schedule</u> From Miss Brown ©