



Oak Class – Week beginning July 13th 2020
Year 6

Maths **Please also encourage your child to access Mathletics daily on top of or to help the work set**	Monday	<p>This week we have maths investigations based on dividing and multiplying decimal numbers. Watch for an introduction: https://www.bbc.co.uk/bitesize/topics/zsq7hyc</p> <p>All Maths work is at the bottom of the sheets:</p> <p>Remember extension work on this area can be found on Mathletics.</p> <p>Each sheet has 4 arithmetic sums as a starter.</p> <p>LO: Can I calculate scale factors?</p>
	Tuesday	LO: Can I calculate ratio?
	Wednesday	LO: Can I use scale factors in calculations?
	Thursday	LO: Can I form and solve one step equations?
	Friday	LO: Can I solve substitutions and write formulae?
English **Please also encourage your child to read daily either independently or to an adult.	Monday	<p>https://www.talk4writing.com/wp-content/uploads/2020/06/Y6-Monsters.pdf</p> <p>Monsters by James Walker</p> <p>This is the second unit of English work to last two weeks, each day I have selected the pages to complete so that you can work through the booklet. It will be similar to our English lessons, in that we used an author's work to base our learning around.</p> <p>Today pages 13-14</p>
	Tuesday	Page 15
	Wednesday	Page 16
	Thursday	Page 17
	Friday	Pages 18-20
Topic/Science	Topic	<p>We are continuing with our Americas Topic.</p> <p>Choose one of the natural wonders from South America below.</p> <p>Your task is to make an information leaflet, poster or booklet about that wonder.</p>

		<p>Remember to use your e-safety skills when you are researching,</p> <div data-bbox="562 236 1995 1174"> <div data-bbox="562 236 607 1174"></div> <div data-bbox="607 236 1547 1174"> <h3>Natural Wonders</h3> <p>There are many natural wonders in South America.</p> <p>The Amazon Rainforest – this is the largest tropical rainforest in the world and is home to thousands of species of wildlife. More than half of the rainforest is located in Brazil.</p> <div data-bbox="674 584 1111 887">  </div> <p>The Amazon River – this is the second longest river in the world and runs for approximately 4000 miles.</p> <p>The Atacama Desert – this is the driest desert in the world and is 600 miles long. It is in Chile which sits on the west coast of South America.</p> <p>The Andes – this is the world's longest mountain range and stretches across many South American countries. The highest peak is Aconcagua which is 6962m tall.</p> <p>Cape Horn – this is a narrow piece of rocky land that sits off the southern tip of South America where the Pacific and Atlantic oceans meet.</p> </div> <div data-bbox="1547 236 1883 504">  </div> <div data-bbox="1883 236 1995 1174"></div> </div>
	Science	<p>We are starting to revise our solar system and space knowledge, watch: https://www.bbc.co.uk/bitesize/topics/zdrrd2p/articles/zyq4wxs watch all the clips and read the information. LO: Can I explain how humans survive in space? On your poster explain your understanding of the video. Remember you can draw pictures and diagrams too.</p>

		You can research it further if you wish.
PE	Activity 1	Joe Wicks workout (Joe is reducing his videos to Monday's, Wednesday's and Saturday's)
	Activity 2	Cosmic Kids Yoga
	Activity 3	<p>Real PE at home – online learning resources Real PE at home includes an online programme which supports families to be active, play and learn together. Here are the details to access real PE at home:</p> <p>The website address is: home.jasmineactive.com</p> <p>Parent email: parent@lyngcofepr-1.com</p> <p>Password: lyngcofepr</p>
Art/Crafts	Activity 1	<p>Traditional South American art is brightly coloured and often includes images of animals.</p> <p>Google: 'traditional South American' art to find lots of examples.</p> <p>Your task is to draw and colour your own piece of traditional South American art, you could choose to include your own favourite animal.</p> <div data-bbox="548 841 1906 1198" data-label="Image"> </div>
	Activity 2	<p>Traditional South American music often includes a bamboo flute.</p> <p>Your task is to make a set of your own flutes, maybe use rolled up paper or card.</p> <p>You could then decorate them. Some ideas are shown below:</p>

Oak Class – Week beginning July 13th 2020
Year 6

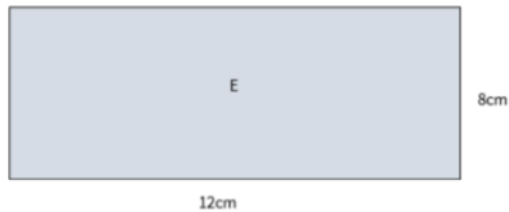
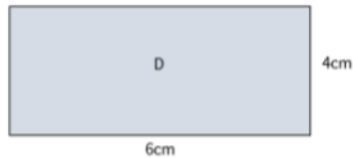
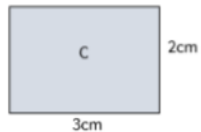
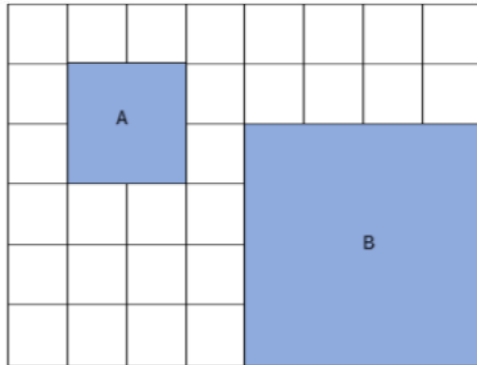


Remember you can email Miss Wharton any pictures of your creations. I'd love to see them.

Maths below:

Monday's work:

Shapes



Arithmetic

1. $\frac{3}{8} \times \frac{1}{9}$

2. $9 - 7.02$

3. 13×4.5

4. $2 \text{ and } \frac{2}{3} \times 3$

Practice: Calculating Scale Factors

5. Recap: Explain how to calculate a scale factor of an enlarged shape.

6. Complete the sentences.
Shape B is ? times as big as shape A.
Shape A has been enlarged by scale factor ?.

7. Look at the three rectangles. The scale factor of enlargement for each set of shapes is:
a. C to D b. D to E c. C to E

8. Look at the three rectangles. The scale factor of enlargement for each set of shapes is:
a. D to C b. E to D c. E to C

9. A square has been enlarged by scale factor 3. One of its sides now measures 15cm. What did it measure before?

10. Explain what 'similar' means in mathematics.

11. A triangle has 3 sides measuring 7cm, 8cm and 9cm. It's enlarged by scale factor 5. What do the sides measure now?

12. A square has an area of 4cm^2 . It is enlarged by scale factor 3. What is its new area?

13. A square with sides of 6cm is enlarged to have side of 36cm. Tim says this is a scale factor of 5. Explain the mistake.

Challenge

14. Draw a triangle. Enlarge it by a scale factor of 3.
Use the new triangle and enlarge it by a scale factor of 5.
Use the new triangle and enlarge it by a scale factor of 1.5.

Label the measures of each new triangle.



You might want to talk to an adult



Spot the mistake

Tuesday's work:

Arithmetic

1. $\frac{9}{10} \times \frac{2}{5}$

2. $7 - 1.36$


3. 0.2×71

4. 3 and $\frac{1}{3} \times 5$

Practice: Calculating Ratio

5. Recap: Explain how you would represent this ratio on a bar model.
1:3



6. Mr Jones plants some flowers. For every 3 roses, he plants 2 daisies. He plants 15 roses. How many daisies did he plant? How many flowers did he plant altogether? 

7. Bhupinder mixes 5 parts blue paint with 2 parts white paint. He starts with 10 parts of blue paint. How much white paint will he need? How many parts is that altogether?

8. In a packet of sweets, there are 3 lemon for every 4 lime. There are 12 lime sweets. How many lemon sweets are there? How many lemon and lime sweets are there altogether?

9. In a classroom, there are 6 boys for every 7 girls. There are 26 children in the class. How many boys are there? How many girls?

10. Explain how you found the answers in question 9.



11. In a bag, there are 2 red marbles for every 5 blue marbles. There are 21 marbles altogether. How many red marbles are there? How many blue?

12. In a pencil case, the ratio of red to blue to yellow pencils is 2:3:4. There are 18 pencils altogether. How many of each colour are there?

13. Lola says that the answer to question 12 is red = 2, blue = 3 and yellow = 4. Is she correct? Explain.



Challenge

14. One salad is made from lettuce leaves, cucumber slices and tomatoes in a ratio of 6:4:5. Use this ratio to solve these questions.

- If there are 100 tomatoes, how many lettuce leaves and cucumber slices are needed?
- If there are 92 cucumber slices, how many lettuce leaves and tomatoes are needed?
- There are a total of 900 items (lettuce leaves + cucumber slices + tomatoes) altogether. How many of each item is there?

Wednesday's work:

Arithmetic

1. $\frac{7}{8} \times \frac{4}{9}$

2. $12 - 3.79$

3. 15×2.3

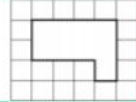
4. $2\frac{3}{4} \times 4$

Practice: Using Scale Factors

5. Recap: Explain what 'increase by a scale factor of 2' means.



6. Copy the shape onto squared paper and draw it twice as big.



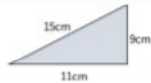
7. Copy the shapes onto squared paper and draw them three times as big.



8. Copy the shapes onto squared paper and draw them twice as big.



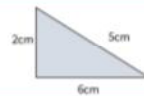
9. Enlarge this triangle by scale factor 2.



10. When enlarging shapes, do the angles also increase? Explain.



11. Enlarge this triangle by scale factor 3.



12. Enlarge this square by scale factor 4.



13. Mason has enlarged a square with sides of 10cm by a scale factor of 4. He says the new sides measure 14cm. Is this correct? Explain.



Challenge

14. Louise and Alister are making dinner. The recipe is for 4 people. Rewrite the ingredient list for a. 2 people, b. 3 people.

Pasta - 450g

Basil - 10 leaves

Tinned tomatoes - 2 tins (800g)

Garlic - 1 clove

Cheese - 15g

Thursday's work:

Arithmetic

1. $5,550 \div 6$

2. $(37 + 19) \times 2$

3. $\frac{2}{9} \div 7$

4. 1.1×5.3

Practice: Forming and Solving One Step Equations

5. Recap: Explain what the = sign means.



6. Using y to represent the missing number, write this as an algebraic equation.
I think of a number. I subtract 5. My answer is 20.

7. Write this as an algebraic equation.
I think of a number. I multiply it by 2 and add 3. My answer is 5.

8. Write this as an algebraic equation.
I think of a number. I divide it by 10 and subtract 2. My answer is 6.

9. Solve the equation to find y .
 $y + 7 = 11$

10. Explain how to find y in this equation.
 $y - 5 = 20$



11. Solve the equation to find y .
 $5y = 25$

12. Solve the equation to find y .
 $22 = 30 - y$

13. Cindy is trying to find y in this expression. $\frac{y}{2} + 7 = 13$.
She thinks $y = 10$.
Explain her mistake.



Challenge

14. Complete the table below using the information given.

w	5w	5w - 8
8		
	10	
		67

Friday's work:

Arithmetic

1. $4,625 \div 5$

2. $328 - 29 \times 3$

3. $\frac{3}{7} \div 2$

4. 2.1×4.5

Practice: Substitution and Formulae

5. Recap: Explain what 'substitution' means.



6. If square = 5 and circle = 3, work out these:

$$\begin{array}{ccccc} \square & + & \square & - & \bigcirc \\ \bigcirc & \times & \square & + & \bigcirc \end{array}$$

7. Substitute these values into the expressions to work them out. $x = 3$, $y = 4$, $z = 5$

a. $x + y + z$

b. $xy - 7$

c. $3 + 2z$

8. Substitute these values into the expressions to work them out. $a = 10$, $b = 2$, $c = 6$

a. abc

b. $\frac{a}{b} + 13$

c. $c^2 - ab$

9. A taxi driver charges £5 for a journey plus 25p for each mile. If c = total cost and m = number of miles, write the formula to represent this.

10. Explain what it means when two letters are next to each other in an equation.



For example, ab

11. With the formula from question 9, work out the cost of a 10-mile journey.

12. How long was the journey if it cost £8.75?

$$8.75 = 5 + 0.25m$$

13. Using the formula $ab + c$, Zeshan substitutes these values into the expression $a = 2$, $b = 4$, $c = 7$. He says the answer is 13. Explain Zeshan's mistake.



Challenge

14. a , b and c are two digit whole numbers above 2. What numbers could a , b and c be?

$$ab - c = 45$$