


Oak Class – Week beginning June 1<sup>st</sup> 2020  
Year 6

Maths <b>**Please also encourage your child to access Mathletics daily on top of or to help the work set**</b>	Monday	This week we have maths investigations based on our previous properties of shapes learning: Recap video <a href="https://www.bbc.co.uk/bitesize/clips/zdg4wmn">https://www.bbc.co.uk/bitesize/clips/zdg4wmn</a> <b>ALL MATHS IS AT THE BOTTOM OF THE SHEETS</b> LO: Can I calculate the volume of cuboids?
	Tuesday	LO: Can I calculate explain my reasoning?
	Wednesday	LO: Can I calculate the volume of cuboids?
	Thursday	LO: Can I calculate the volume of cuboids?
	Friday	LO: Can I calculate all the possible answers?
English <b>**Please also encourage your child to read daily either independently or to an adult.</b>	Monday	<a href="https://www.talk4writing.co.uk/wp-content/uploads/2020/04/Y6-James.pdf">https://www.talk4writing.co.uk/wp-content/uploads/2020/04/Y6-James.pdf</a> <u>The City of Silence</u> Is the second unit of English work <b>to last three weeks</b> , 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. Today pages 9-10
	Tuesday	Page 11
	Wednesday	Page 12
	Thursday	Page 13
	Friday	Page 14
Topic/Science	Topic	We are continuing with our Americas Topic. We are going to research individual states of America.  This week, I'd like you to research the state of <b>Texas</b> make a poster including things like: key facts (capital city, largest city, state bird, state flower, state tree, significant towns and monuments and dates to remember).  Make your poster colourful and fact filled. Keep this poster to be the third page of your States of America book.
Topic/Science PE	Science	We are continuing our electricity topic in science, watch: <a href="https://www.bbc.co.uk/bitesize/topics/z2882hv/articles/zxv482p">https://www.bbc.co.uk/bitesize/topics/z2882hv/articles/zxv482p</a> <b>LO: Can I explain what electrical conductors and insulators are?</b> On your poster show what electrical conductors and insulators are, you could research it further, if you wish.

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	Activity 1	Joe Wicks workout
PE Art/Crafts	Activity 2	Cosmic Kids Yoga
	Activity 3	<b>Real PE at home – online learning resources</b> Real PE at home includes an online programme which supports families to be active, play and learn together. Here are the details to access <b>real PE</b> at home: The website address is: <a href="https://home.jasmineactive.com">home.jasmineactive.com</a> Parent email: <a href="mailto:parent@lyngcofepr-1.com">parent@lyngcofepr-1.com</a> Password: lyngcofepr
	Activity 1	As we are researching Texas this week, research an animal or fish that lives in Texas and draw your own version of it.
Art/Crafts	Activity 2	 This is the Texas state flag, using what you have learnt about Texas, create your own state flag. It could contain more detailed art work about things you have learnt about Texas.
		<b>Maths is below:</b>

Monday's work:

## Volume of a Cuboid

## Deeper



Use the formula  $\text{length} \times \text{width} \times \text{height}$  to calculate the volume of a cuboid.

Lily is correct. If all of Natalia's side measurements were odd numbers then the answers cannot be an even number. This is because an odd number  $\times$  odd number  $\times$  odd number = an odd number.

For example:

$$3 \times 5 \times 3 = 45\text{cm}^3$$

Not drawn to scale.



All of the sides are odd numbers. I calculated that the volume of my shape was  $26\text{cm}^3$ .

If all of the sides were odd numbers, I don't think Natalia's answer can be correct.



Do you agree with Lily? Explain your reasoning.

Tuesday's work:

Use the formula  
length  $\times$  width  $\times$  height  
to calculate the volume of a cuboid.



1) Calculate the volume for each of these cuboids.

a) Not drawn to scale

\_\_\_\_\_

\_\_\_\_\_ cm<sup>3</sup>

b) Not drawn to scale

\_\_\_\_\_

\_\_\_\_\_ cm<sup>3</sup>

c) Not drawn to scale

\_\_\_\_\_

\_\_\_\_\_ cm<sup>3</sup>

2) Calculate the missing values in each of these cuboids.

a) Not drawn to scale

$12 \times 2 \times \underline{\quad} = 72\text{cm}^3$

\_\_\_\_\_

\_\_\_\_\_

b) Not drawn to scale

$\underline{\quad} \times 4 \times 6 = 120\text{cm}^3$

\_\_\_\_\_

\_\_\_\_\_

c) Not drawn to scale

$8 \times \underline{\quad} \times 2 = 112\text{cm}^3$

\_\_\_\_\_

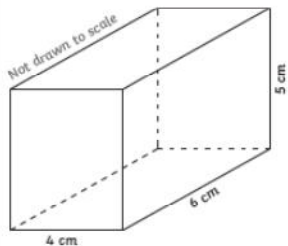
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Wednesday's work:

Use the formula  
**length × width × height**  
to calculate the volume of a cuboid.



1) Two children are discussing the best way to find the volume of this cuboid.



Amrit says - To work out the volume I made sure to use the formula length × width × height in order.  
 $4 \times 6 = 24$   
 $24 \times 5 = 120\text{cm}^3$



Noah says - I just multiplied the measurements in the order I found the easiest and quickest to work out.  
 $4 \times 5 = 20$   
 $20 \times 6 = 120\text{cm}^3$



Will Noah's method always work? Explain your answer fully.

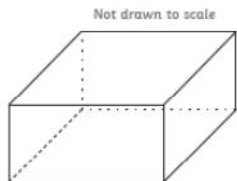
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2) Ada measures the sides of this cuboid in order to find the volume.



All of the sides are even numbers.  
I calculated that the volume of my shape was  $17\text{cm}^3$ .



I don't think Ada's answer can be correct if all the sides were even number.



Do you agree with Chelsea? Explain your reasoning.

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Thursday's work:

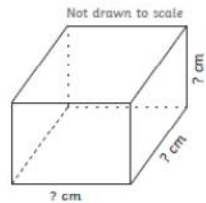
Use the formula

$$\text{length} \times \text{width} \times \text{height}$$

to calculate the volume of a cuboid.



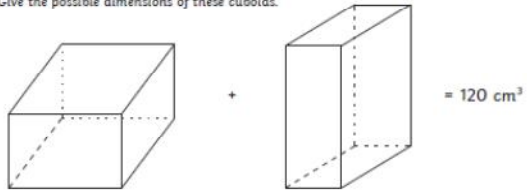
- 1) A cuboid has sides that are whole numbers. No side is smaller than 3cm or longer than 10cm. It has a volume between  $70\text{cm}^3$  and  $75\text{cm}^3$ .



Find three sets of different dimensions for the cuboid.  
 (Rearranging the order of the measurements is not accepted as a different answer.)

length = ___cm	length = ___cm	length = ___cm
width = ___cm	width = ___cm	width = ___cm
height = ___cm	height = ___cm	height = ___cm
volume = ___cm	volume = ___cm	volume = ___cm

- 2) When added together, two different cuboids have a volume equal to  $120\text{cm}^3$ .  
 Give the possible dimensions of these cuboids.



Find 5 different answers.  
 (Rearranging the order of the measurements is not accepted as a different answer.)

Friday's work:

**Volume of a Cuboid**

**Deepest**

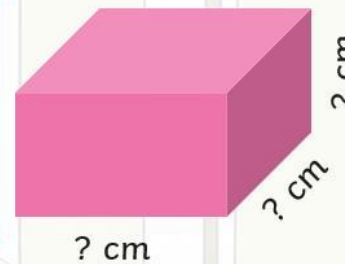


**Use the formula length  $\times$  width  $\times$  height to calculate the volume of a cuboid.**

A cuboid has sides that are whole numbers. No side is smaller than 3cm or longer than 10cm. It has a volume between  $80\text{cm}^3$  and  $85\text{cm}^3$ .

Give the possible dimensions for the cuboid.

Find two more different sets of answers.  
(Rearranging the order of the measurements is not accepted as a different answer.)



**Possible answers:**

length = 3cm  
width = 4cm  
height = 7cm  
 $3 \times 4 \times 7 = 84\text{cm}^3$   
volume =  $84\text{cm}^3$

length = 3cm  
width = 3cm  
height = 9cm  
 $3 \times 3 \times 9 = 81\text{cm}^3$   
volume =  $81\text{cm}^3$

length = 4cm  
width = 5cm  
height = 4cm  
 $4 \times 4 \times 5 = 80\text{cm}^3$   
volume =  $80\text{cm}^3$