## Carleton Park Year 6: Home Learning Schedule

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| :---: | :---: | :---: | :---: | :---: | :---: |
| Suggested timing: 45 mins per lesson | Lesson 1: To recognise 3-D shapes. <br> In this lesson, you will revise the names of the properties of 2-D and 3-D shapes and identify 2-D faces of 3-D shapes. <br> Click here to find task sheets to support your learning. Click here for a tutorial. | Lesson 2: To recognise nets of 3-D shapes. In this lesson, you will learn to recognise and build 3-D nets; you will then use this information to solve problems. <br> Click here to find task sheets to support your learning. Click here for a tutorial. | Lesson 3: To solve problems involving 3-D shapes. <br> In this lesson, you will learn to use your knowledge of 3-D shapes and visualise nets of shapes in order to solve problems. <br> Click here to find task sheets to support your learning. Click here for a tutorial. | Lesson 4: To illustrate and name parts of a circle. In this lesson, you will learn how to identify the parts of a circle and find out about the relationships between these parts. <br> Click here to find task sheets to support your learning. Click here for a tutorial. | Lesson 5: To Solve practical problems involving circles. <br> In this lesson, you will learn how to identify relationships between circle parts and then <br> solve problems involving circles. <br> Click here to find task sheets to support your learning. Click here for a tutorial. |
| This week we will be focussing upon: Geometry: Properties of shape |  |  |  |  |  |
| We reco comme |  |  |  |  |  |
|  |  |  |  |  |  |
| Remember to share your learning on ClassDojo! <br> Take a photo of your work and upload it to the Portfolio section for your teacher to see. |  |  |  |  |  |
| Suggested timing: 45 mins per lesso | Lesson 1: InstructionsReading Comprehension In this lesson, you will retrieve facts and make inferences from a text. <br> Click here to find slideshows, videos and task sheets to support your learning. | Lesson 2: InstructionsReading Comprehension In this lesson, you will retrieve facts and make inferences from a text. <br> Click here to find slideshows, videos and task sheets to support your learning. | Lesson 3: InstructionsIdentifying Key Features Learn how to identify the key features of instructions. <br> Click here to find slideshows, videos and task sheets to support your learning. |  | Lesson 5: Writing Instructions <br> Apply your understanding from throughout the week to write your own set of instructions. <br> Click here to find slideshows, videos and task sheets to support your learning. |
| This we <br> We have pro introduce this We recommend commencing |  |  |  | Practise using various ways to begin a sentence. <br> Click here to find slideshows, videos and task sheets to support your learning. |  |
| This week's spellings are: observant - hesitancy - tolerance - expectant - tolerant - expectancy - hesitant - observance |  |  |  |  |  |
| $\begin{aligned} & \text { padlet } \\ & \text { pan } \end{aligned}$ |  |  |  |  |  |
| Starting on the $\mathbf{2 2}^{\text {nd }}$ June - every afternoon, Monday to Friday, at 2 pm click here to take part in a live discussion on Microsoft Teams about the day's learning alongside your classmates and teacher. |  |  |  |  |  |

Maths- Lesson 1: Challenge 1

Match the shape to its name.

## - cone

- cuboid
- hexagonal prism
- cylinder
- pentagonal prism
- cube
- tetrahedron
- square based pyramid
- triangular prism


All answers to the above questions are included on the video tutorial for this lesson.

Maths- Lesson 1: Challenge 2

Complete the table of shape properties.

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| name |  |  |  |  |
| vertices |  |  |  |  |
| edges |  |  |  |  |
| faces |  |  |  |  |

All answers to the above questions are included on the video tutorial for this lesson.

Maths- Lesson 1: Challenge 3
What shape is each person describing?
Write the name of the shape, sketch a diagram of the shape and answer the questions.


## Maths- Lesson 1: Challenge 4

Raeesa has drawn a 3-D shape.
His shape has 5 vertices, 8 edges and 5 faces.
What 3-D shape has Raeesa drawn?

Fran has drawn a 3-D shape.
Her shape has 5 faces, 9 edges and 6 vertices.
What 3-D shape has Fran drawn?

All answers to the above questions are included on the video tutorial for this lesson.

## Maths - Lesson 1: Challenge 5


cuboid
sphere cube
cylinder
cone
square based pyramid triangular prism

All answers to the above questions are included on the video tutorial for this lesson.

Maths - Lesson 2: Challenge 1
Place spots on each face of the cube net to create a dice.
REMEMBER: Opposite faces on a dice sum to seven.


Maths - Lesson 2: Challenge 2
Will these nets make a cuboid?


All answers to the above questions are included on the video tutorial for this lesson.

Maths - Lesson 2: Challenge 3

## What would the net of this patterned cube look like?



All answers to the above questions are included on the video tutorial for this lesson.

Maths - Lesson 2: Challenge 4

The net of a cube has been cut into two. It could be put together in several ways so that it could be folded into a cube.


Here are the nets of 9 solid shapes. Each one of these has been cut into 2 pieces, like the net of the cube.

Can you see which pieces go together?

All answers to the above questions are included on the video tutorial for this lesson.


## Maths - Lesson 3: Challenge 1

Sope moves his shape. Draw the circles on the shape in its new position.


Maths - Lesson 3: Challenge 2
On the net of each shape, draw one more dot so that they have dots on opposite faces.


All answers to the above questions are included on the video tutorial for this lesson.

Maths - Lesson 3: Challenge 3
Cubes have been stuck together to make this block.

The block has a pattern on two faces.


## Maths - Lesson 3: Challenge 4

Iman has some cubes with a cross on each face and some cubes with a circle on each face.


The block is turned to the position below.

Draw the missing parts of the pattern on it.


She sticks five cubes together to make this shape.


How many crosses and how many circles are there on the outside of the shape?

All answers to the above questions are included on the video tutorial for this lesson.

Maths - Lesson 3: Challenge 5

Here are the six faces of a cube, in no particular order.


Here are three views of the cube:


Can you deduce where the faces are in relation to each other and record them on the net of this cube?

nrich.maths.org

All answers to the above questions are included on the video tutorial for this lesson.

Maths - Lesson 4: Challenge 1
Label the parts of a circle:

## radius <br> circumference

## diameter



C

Maths - Lesson 4: Challenge 2
Use the given diameters to calculate the radius of each circle.

$r=$ $\qquad$

$r=$ $\qquad$
C

$r=$ $\qquad$

$r=$ $\qquad$
*not to scale

Extra challenge: Can you convert the radius measurements into metres? Kilometres?

All answers to the above questions are included on the video tutorial for this lesson.

Maths - Lesson 4: Challenge 3
Match the key vocabulary to the definition.

## circumference

A straight line from a point on the circumference to the centre.

A straight line passing through the centre from one point on the circumference to another.

The middle of the circle.

The boundary enclosing the circle.

## Maths - Lesson 4: Challenge 4

Use the given radius for each circle to calculate the diameter.


All answers to the above questions are included on the video tutorial for this lesson.

Maths - Lesson 5: Challenge 1
Luke creates a line of five pence pieces. The line is 10.8 cm long.
Each five pence piece has a radius of 9 mm . How many five pence pieces does he use?


Maths - Lesson 5: Challenge 2
Calculate the approximate circumference of each coin.

| Coin | Radius |
| :---: | :---: |
| 1 p | 10 mm |
| 2 p | 13 mm |
| 5 p | 9 mm |
| 10 p | 12.5 mm |



## Maths - Lesson 5: Challenge 3

Is it possible to create a line of coins exactly 12 cm long?

| Coin | Radius |
| :---: | :---: |
| $1 p$ | 10 mm |
| $2 p$ | 13 mm |
| 5 p | 9 mm |
| 10 p | 12.5 mm |

All answers to the above questions are included on the video tutorial for this lesson.

## Maths - Lesson 5: Challenge 4

Use your knowledge of circles to solve the problems.

1. What is the length of the column and row of coins shown?
2. Three coins of equal value are added to the left of the 2 pence piece to increase the row. The length increases by 5.4 cm . Which coin has been added?
3. Four coins are added in the positions shown by the $x$ on the diagram. The length of this row is 9.9 cm . What coins could have been added? How do you know?


All answers to the above questions are included on the video tutorial for this lesson.

Maths - Lesson 5: Challenge 5

The smallest circle of the dart board has a radius of 1 cm .

The largest has a radius of 11 cm .
The circles increase in size by an equal amount each time.

What is the diameter of each of the five circles of the target board?

What is the approximate circumference of the target board?

All answers to the above questions are included on the video tutorial for this lesson.

Arithmetic Challenge



All answers to the above questions are on the last page of this document.

## Maths Bonus Challenges!

It is that time of the week! Click here to work with your family on these maths problems.
Do as many as you can and help each other out!


## Maths Challenge

If you just fancy having a go on your own, the most suitable questions for Year 6 are 1 to 6.

All answers to the above questions are included on the webpage for this lesson.

## English - Lesson 1: Reading Comprehension

## An extract from The Weirdstone of Brisingamen

"It's the carrion crow that was round the farm after tea!" cried Susan.
"Talk sense! How can you tell it's the same one? There are probably dozens of them about here."
All the same, Colin did not like the way the bird sat hunched there so tensely, almost eagerly: and they had to pass it if they wanted to regain the path. He took a step forward, waved his arms in the air, and cried "Shoo!" in a voice that sounded woefully thin and unfrightening.
The crow did not move.
Colin and Susan moved forward, longing to run, but held by the crow's eye. And as they reached the centre of the dell the bird gave a loud, sharp croak. Immediately a cry answered from among the rocks, and out of the shadows on either side of the children rose a score of outlandish figures.

They stood about three feet high and were man-shaped, with thin, wiry bodies and limbs, and broad, flat feet and hands. Their heads were large, having pointed ears round saucer eyes, and gaping mouths which showed teeth. Some had pug-noses, others thin snouts reaching to their chins. Their hides were generally of a fish-white colour, though some were black, and all were practically hairless. Some held coils of black rope, while out of one of the caves advanced a group carrying a net woven in the shape of a spider's web.
For a second the children were rooted: but only for a second. Instinct took control of their wits. They raced back along the dell and flung themselves through the gap into the beech wood. Fingers clawed, and ropes hissed like snakes but they were through and plunging down the slope in a flurry of dead leaves.
"Stop. Sue!" yelled Colin.
He realized that their only hope of escape lay in reaching open ground and the path that led from Stormy Point to the road, where their longer legs might outdistance their pursuers', and even that seemed a slim chance.

English - Lesson 1: Reading Comprehension Questions

## Independent Task

1) What type of bird was watching Colin and Susan?
2) '...a cry answered from among the rocks...' What was the cry?
3) What did the strange figures look like? Find 2 things
4) What were the strange creatures carrying?
5) What did the children do when they saw the strange figures?
6) Why did the children want to get to an open space?

All answers to these questions are included on the video tutorial for this lesson.

## English - Lesson 2: Reading Comprehension

## An extract from The Weirdstone of Brisingamen

They lurched forward a few paces, spurred on by the sound of what was following all too close behind, but then Susan staggered and collapsed against a fallen tree.
"I can't go on!" she sobbed. "My legs won't move."
"Oh yes you can! Only a few more yards!"
Colin had spotted a huge boulder sticking out of the swamp a little way up the hill from where they were, and, if only they could reach it, it would offer more protection than their present position, which could hardly be worse. He grabbed his sisters arm and dragged her through the mud to the base of the rock.
"Now climb!"
And, while Susan hauled herself up to the flat summit, Colin put his back to the rock, like a fox at bay turning to face the hunt.
The edge of the swamp was a mass of bodies. The rising moon shone on their leather hides and was reflected in their eyes. Colin could see white shapes spreading out on either side to encircle the rock: they were in no hurry now, for they knew that escape was impossible.

Colin climbed after his sister. He ached in every muscle and was trembling with fatigue. When the circle was complete the creatures began to advance across the swamp, moving easily over the mire on their splayed feet. Ever closer they came, till the rock was surrounded.
From all sides at once the ropes came snaking through the air, as soft as silk, as strong as iron, and clung to the children as though coated with glue; so that in no time at all Colin and Susan fell helpless beneath the sticky coils, and over them swarmed the mob, pinching and poking, and binding and trussing, until the children lay with only their heads exposed, like two cocoons upon the rock.
But as they were being hoisted on to bony shoulders it seemed as though a miracle happened. There was a flash, and the whole rock was lapped about by a lake of blue fire. The children could feel no heat, but their captors fell, hissing and spitting, into the swamp, and the ropes charred and crumbled into ash, while pandemonium broke loose through all the assembly.
Then, from the darkness above, a voice rang out.

English - Lesson 2: Reading Comprehension Questions

## Independent Task

1) '...while Susan hauled herself up to the flat summit... What does this suggest about how Susan was moving?
2) Find evidence from the text that tells us what time of day it is.
3) Where was the huge boulder Colin spotted?
4) How did the creatures form themselves around the children?
5) What evidence from the text suggests that Colin was tired?
6) After the flash, the whole rock was surrounded by what?

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## English - Lesson 3: Identifying Features

## Label the structural features that have been identified in the text:



## How to escape an outlandish creature

The moors are a great place to relax and explore, but it may be filled with many potential dangers. One of the dangers you might encounter is an outlandish creature. Outlandish creatures are well-known for their grotesque and dishevelled appearance Residing in underground caves and tunnels, they rarely breach the earth's surface. Whilst carrying sharp spears, coils of black rope and spider webbed-shaped nets, they hunt and chase children: one of their favourite activities. In order to escape these creatures, follow these step-by-step instructions.

## You will need:

Calmness, stamina, agility and courage

## Instructions

First things first, it is important to remain calm-a clear head is essential in order to carry out the escape plan.

2

All answers to these questions are included on the video tutorial for this lesson.
2. Secondly, make as little noise as possible: these creatures have a heightened auditory sense and can detect your location in seconds.
3. Due to the short legs of the creature, you will need to run uphill. Even though you will find this tiring, it will create distance between you and your pursuer
4. When you are on higher ground, you will find that running sporadically wil gain you the advantage of unpredictability. This increases your chances of escape if the creature cannot understand your movements.
5. Whilst you are on the move, you must stay clear of unexpected terrain (such as mud or sand) as the creatures are light and agile, with the ability to skim over such surfaces.
6. Because of their monkey-like skills, these creatures are confident climbers. Climbing trees will only benefit them and hinder you. Remain on the ground.
7. Next, you need to head towards light: the creatures are most comfortable in darkness and the light can distort their vision
8. Once you are in a bright location, you should aim for crowded areas. The creatures do not like to be outnumbered and will not risk capture themselves. 9. Now you are in a crowded place, the outlandish creatures will retreat to their caves and tunnels, leaving you to get back to your home safely.


If you have managed to follow all the steps in these instructions, you will have escaped from the outlandish creatures. Ensure you keep a copy of the instructions safe should you ever need to use them again.

English - Lesson 3: Identifying Features
Label the grammatical features that have been identified in the text:


1. First things first, it is important to remain calm - a clear head is essential in order to carry out the escape plan.
2. Secondly, make as little noise as possible: these creatures have a heightened auditory
$\square$
7 sense and can detect your location in seconds.
3. Due to the short legs of the creature, you Will need to run uphill. Even though you will find this tiring, it will create distance between
you and your pursuer.


All answers to the above questions are included on the video tutorial for this lesson.

## English - Lesson 3: Identifying Features

Label the grammatical features that have been identified in the text:


All answers to the above questions are included on the video tutorial for this lesson.

English - Lesson 4: Sentence Openers
Read the main clauses and add a fronted adverbial and/or subordinate clause to extend the sentences.

1. Dig a hole.
2. Cover the hole with a sheet.
3. Scatter leaves on the sheet.
4. Set the net in the tree above.
5. Get some tasty treats.
6. Leave the treats next to the hole. 7. Hide nearby and wait.
7. Watch the creature fall in the hole.
8. Pull the rope to trap the creature.

English - Lesson 5: Writing Instructions
Using the example instructions and the skills you have learnt in the last two lessons, write a set of instructions about how to capture the outlandish creatures we have read about in the text. To help you, there is a step-by-step video tutorial available through the lesson link. Don't forget your VIPs!

If you can include all these elements in your writing, it will be a fantastic piece of work:

## Success criteria

## Structure

Title
Introduction
Equipment list
Chronological steps
Conclusion
Don't forget: neat handwriting, check it makes sense, capital letters and full stops.

## Introduction

## Grammatical

Second person
Present tense
Range of sentence openers
Range of punctuation

## Things you could include:

-a description of the creatures
-why you might need to trap them

- rhetorical questions for the reader


## Equipment list

## Things you could include:

-a list of items the reader will need

- extra information about the items if necessary (do you need to be specific?)


## Things to remember:

-Third person
-Well chosen vocabulary
-Range of punctuation and clauses

## Things to remember:

-Commas to separate your items in a list
-Semi-colon to separate items in the list if the items are more detailed

## English - Lesson 5: Writing Instructions

## Instructions

Things you could include:
-clear steps the reader can follow
-any extra details they would need to know

## Things to remember:

-Second person
-Present tense
-Chronological order
-Well chosen vocabulary
-Sentence openers
-Range of punctuation and clauses

## Conclusion

Things you could include:
-a comment about the completion
of the steps
-the reader being successful
-the next steps the reader may need
to take

Things to remember:
-Second person
-Well chosen vocabulary
-Range of punctuation and clauses

Good luck with your instructions, we can't wait to see your finished piece of work. Remember to share on ClassDojo!

## Arithmetic Challenge

## Answers

| 1. | $\frac{3}{14}$ | 6. | 2356 |
| :---: | :---: | :---: | :---: |
| 2. | 175 | 7. | $1 \frac{23}{30}$ |
| 3. | 103860 | 8. | 28 |
| 4. | 0.0503 | 9. | 56 |
| 5. | 7.81 | 10. | 18.55 |

