## $\underline{\text { Lewis Class }}$

## Year 4 Maths (week beginning 06.07.20)

Here are some links to websites that have videos to support your child's learning in Maths. If you are struggling to find time to sit down with them, they could watch and make notes independently. These are not necessarily linked to the current topic but are still useful tools for learning. They can also be used as additional learning if needed.
https://www.bbc.co.uk/bitesize/subjects/z826n39
https://www.thenational.academy/online-classroom/year-4/maths\#subjects

## Properties of shape

Co-ordinates

## Task 1

- Describe position

Coordinates are a set of numbers or numbers and letters together that show you a position on a map. They can help you find a specific place or object that you are looking for.
https://www.bbc.co.uk/bitesize/topics/zgthvcw/articles/z96k9qt
To find co-ordinates, we read the axis. We always read the $x$-axis first and then the $y$-axis next. We also write the co-ordinates in brackets.
For example:
$X=(0,8)$
Find these:
$x=$
$x=$
$X=$
$X=$
Y - axis

Write out the coordinates that spell your name.


## Task 2

- Draw on a grid

Using a ruler, draw a grid with a $y-$ axis and an $x$ axis. Use the grid attached if you can print. Plot these points on the grid:
Make sure you plot your points on the line and not in the middle of 2 lines.

Here are the coordinates of three points.

| $X(1,3)$ | $Y(2,5)$ |
| :--- | :--- |
| $Z(3,7)$ |  |

a) Plot and label the points on the grid.

b) Join up the points.

What do you notice?
c) Write the coordinates of two other points that fit this pattern.

Two vertices of a triangle are shown on the grid.

a) What are the coordinates of the two vertices shown?
b) Give a possible coordinate for the third vertex, if the triangle is right-angled.
c) Give a possible coordinate for the third vertex, if the triangle is isosceles.
https://classroom.thenational.academy/subjects-by-year/year-4/subjects/maths - position and direction, lesson 1, 2, 3

## Task 3

## - Move on a grid

We use the words left, right, up and down to move shapes and points on a coordinate grid when following directions. We call this a translation. You are simply moving the points on a grid which will give you different coordinates.

## Translate A 6 right and 3 down. <br> Record the coordinates before ( $\quad, \quad$, ) and after ( _ , _ ) <br> Translate B and C 4 left and 3 up. Record the coordinates before ( $\quad, \quad$, ) and after ( _ , _ )

A map of the world is shown on a grid.



Complete the sentences to describe the movement of planes.
a) Plane 1 flies from $A$ to $D$.

Plane 1 flies $\square$ right.
b) Plane 2 flies from $A$ to $B$.

Plane 2 flies $\square$ right and $\square$ down.
c) Plane 3 flies from $C$ to $D$.

Plane 3 flies $\square$ right and $\square$ up.
d) Plane 4 flies from $E$ to $D$.

Plane 4 flies $\square$ left and $\square$ up.

Now write the coordinates for each plane - both starting point and destination.
Bonus task - write instructions to translate the planes to new positions and write the new coordinates.

## Task 4

- Describe movement

Describe the translation from:


Use this sentence stem - Shape A is translated $\qquad$ left/right and $\qquad$ up/down to shape B.

Do the same for the other translations.
Now add in your own shape and describe its translations.

## Task 5

- Reasoning and problem solving

When you are plotting a point on a grid it does not matter whether you go up or across first as long as you do one number on each axis.

Do you agree with Amir?
Convince me.



Tommy has described the translation from $A$ to $B$ as 3 right and 4 up.


Can you explain his mistake?

Throughout the week - practise multiplication tables:
You could:

- Focus on whichever one you find difficult to remember and write out in a random order to improve your rapid recall.
- Play on Hit the Button - focus on number bonds, halves, doubles and times tables -
https://www.topmarks.co.uk/maths-games/hit-the-button
Do a multiplication dance - https://www.bbc.co.uk/teach/supermovers/times-table-collection/z4vv6v4

