Tuesday 16th June

Hello Year 6,

We can't believe that its already the middle of June!

As you probably are aware, things are starting to change at Howley Grange as some children are coming back to school. There are many of you who are still learning at home though, and we just want you to know that we miss you and hopefully will be able to see you at some point soon. In the meantime, keep working hard with the home-learning and know that we are thinking of you.

Here are the activities for this week for you to follow and complete. If you have some spare time or want to do some extra learning, you could visit https://www.bbc.co.uk/bitesize or https://www.thenational.academy/online-classroom where there are lots of lessons and activities to choose from.

As always, try to read for at least 20 minutes a day and take Accelerated Reader quizzes from home by using this link Howley Grange Renaissance at home and logging on as usual using your username and password. To check that the book you are reading has a quiz, you can check it using on Accelerated Reader Bookfinder.

Remember to take time to relax, exercise and be kind to yourselves and each other.

Take care and keep smiling,

Mrs Graham and Mrs North

English Activity 2 – Undiscovered creatures

What other rare, not yet discovered, creature could you write about?

★ **First, let's create a new animal to explore. If you have access to the Internet, type this into Google:**

https://www.switchzoo.com

Here, you can create your own creature by blending zoo animals together. Print off your animal and stick it below. OR you can create your creature yourself. Simply draw into the box below to design a new animal that you might find on land or in the sea.

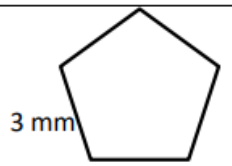
© Talk for Writing

Maths Activity 2a – Ten in ten

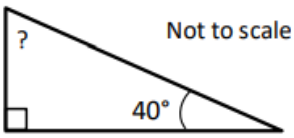
Remember – ten questions in ten minutes.

These are tricky so try your best.

1. ½ (4 x 5 – 6)
2. The temperature is 5.5°C. It falls by 7 degrees in the night. What is the temperature now?
3. What is the perimeter of this regular pentagon?



4. 23 – 7 x 3
5. What is the remainder when 32 is divided by 7?
6. What is the missing angle?



7. The ratio of lions to tigers in a zoo is 3:5. If there are 9 lions in the zoo, how many tigers are there?
8. I have £78. I spend £45 on some Blu-Ray discs and £12 on a T-shirt. How much money do I have left?
9. A toy car costs £60. It is reduced by 10% in a sale. How much does it cost in the sale?
10. Find the mean of 16, 12, 14, 7 and 6.

Free Math Sheets, Math Games and Math Help
MATH-SALAMANDERS.COM

Maths Activity - Translations

We have included Learning Reminders that will help you with answering today's questions.

Don't forget that you can also use your Maths revision book to help you too.

We would like you all to try the activity and the investigation too.

If you are still unsure of what to do, there is a 'Bit Stuck' activity to try that might help.

Learning Reminder

Work out new co-ordinates after a translation.

What shape is this?

This parallelogram moves 3 squares to the right. Work out the co-ordinates of its new position...

Sketch the shape (not the grid) and label the new co-ordinates...

Work out new co-ordinates after a translation.

This shape has been translated; this means that it has moved but kept its original shape and orientation.

Look at the new co-ordinates. What is the same; what is different?

The *y* co-ordinates are the same, but the *x* co-ordinates have increased by 3.

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Learning Reminder

Work out new co-ordinates after a translation.

This time, move the parallelogram up four squares... Sketch the shape, labelling the new co-ordinates.

Work out new co-ordinates after a translation.

Look at the new co-ordinates. What is the same; what is different this time?

The *x* co-ordinates are the same, but the *y* co-ordinates have increased by 4.

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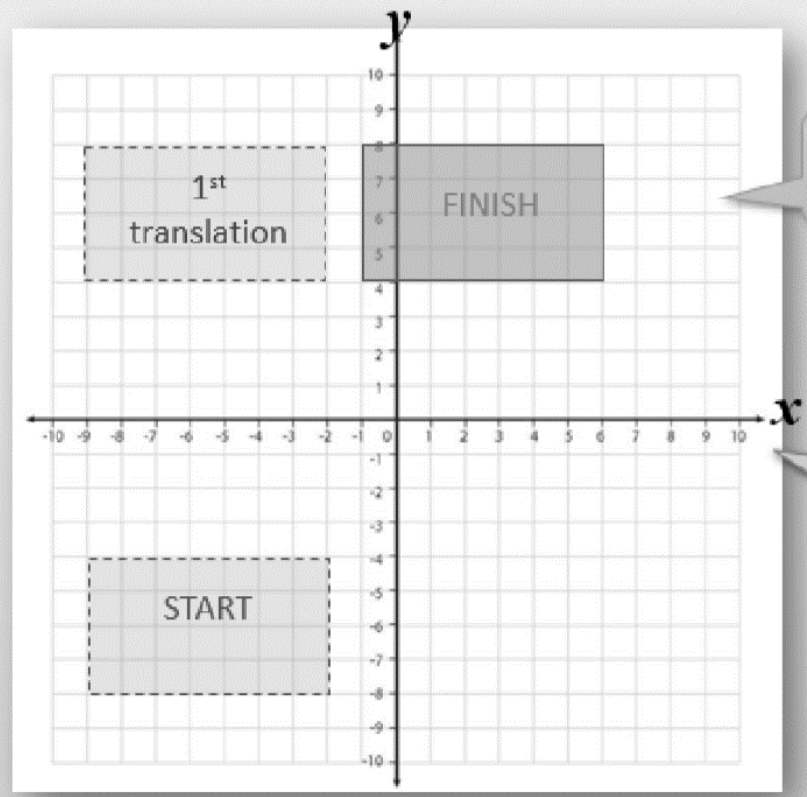
Learning Reminder

Work out new co-ordinates after a translation.



Describe this two step translation....

The rectangle has moved 12 squares up and 8 squares to the right.

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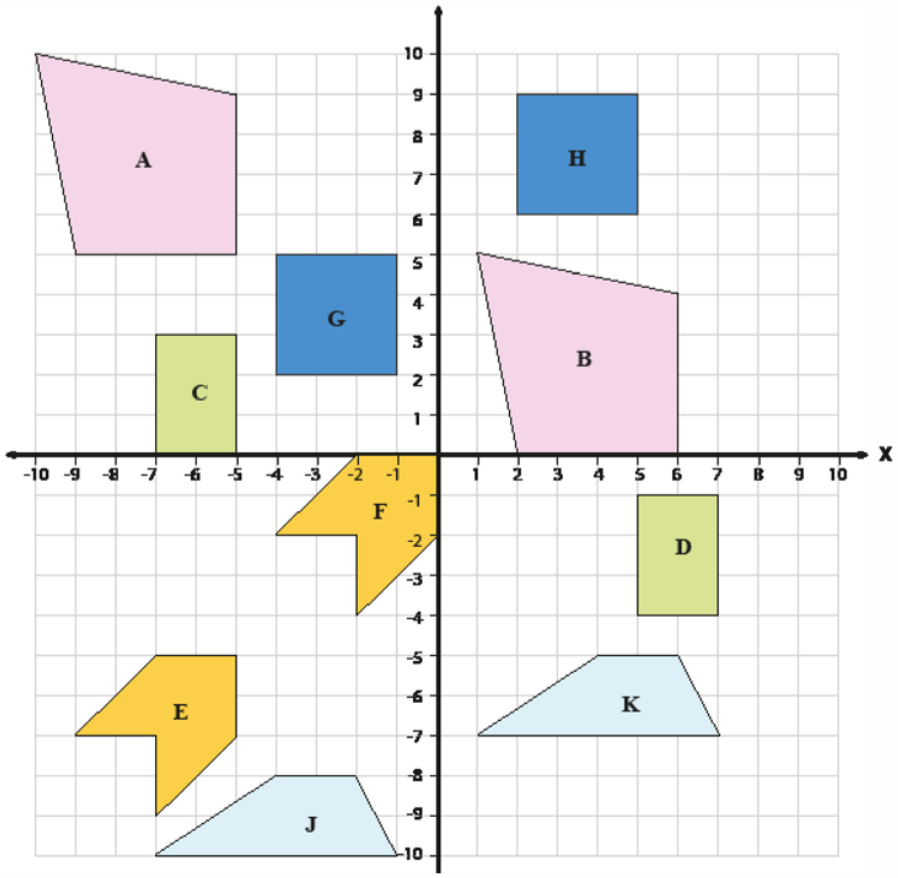
Maths Activity 2b – Translated quadrilaterals

Write the translation for each of these shapes.
Write the number of squares it moves along (x) and the number of squares it moved up/down (y), e.g. a shape might move along 3 squares to the right and 4 squares down.



1. Shape A moves [____] squares along to the _____ and [___] squares _____.

2. Shape C moves [____] squares along to the _____ and [___] squares _____.

3. Shape E moves [____] squares along to the _____ and [___] squares _____.

4. Shape G moves [____] squares along to the _____ and [___] squares _____.

5. Shape J moves [____] squares along to the _____ and [___] squares _____.

Which pair of shapes have a translation of 11 horizontally?

Which pair of shapes have a translation of 3 vertically?

Which pair of shapes have the greatest translation horizontally?

Challenge

Draw a quadrilateral in the bottom left quadrant.
Translate it to the top right quadrant and re-draw it.
Write the translation.
Try the same thing with a pentagon on a new grid.

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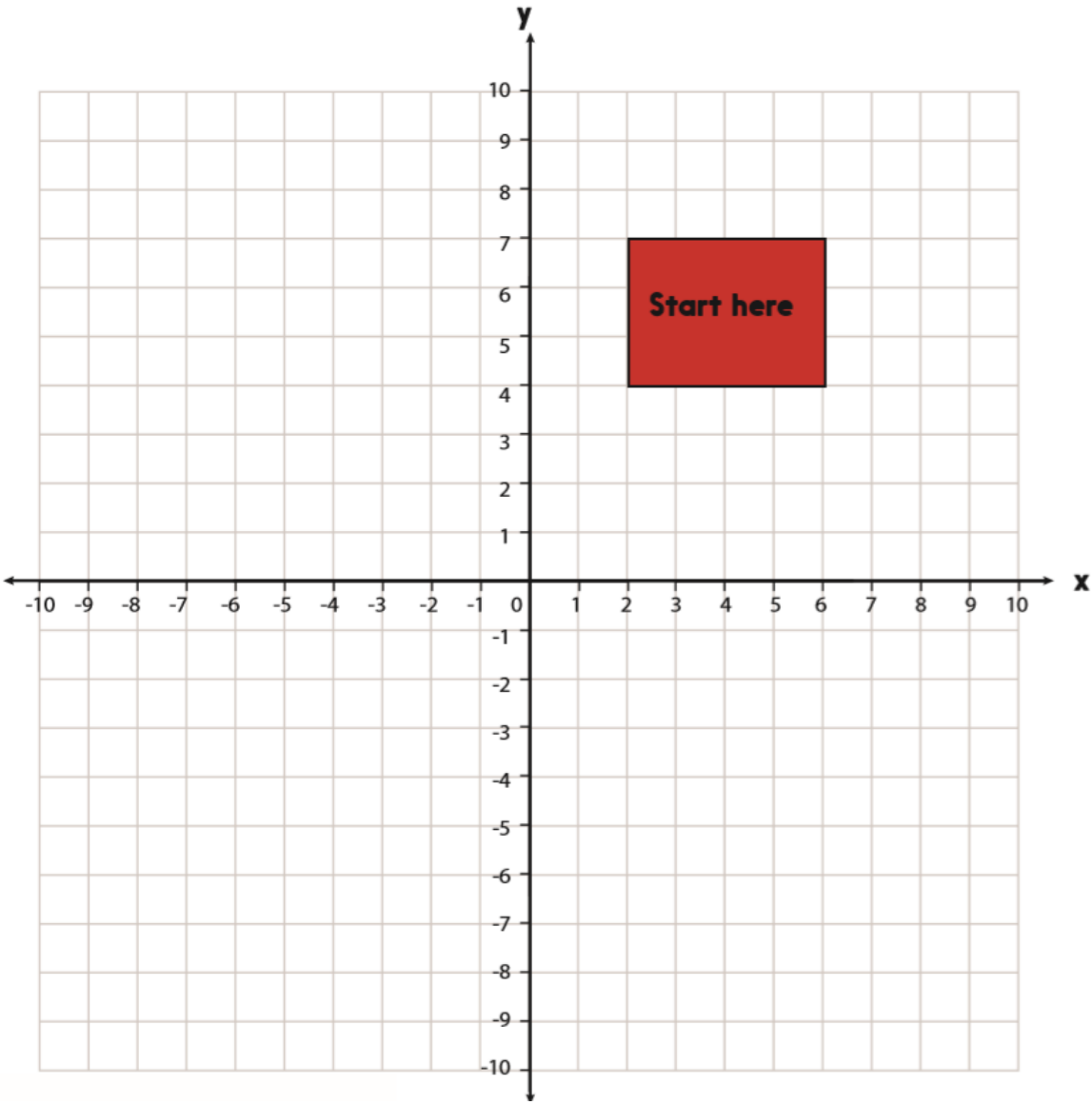
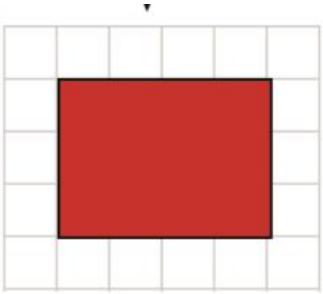
A Bit Stuck – Translations



- Cut out this rectangle.



- Place the rectangle in the starting position on the co-ordinate grid.
- Write the co-ordinates of the four vertices.
- Move the rectangle 3 squares to the right. Write the new co-ordinates. The x co-ordinates will have changed but not the y coordinates.
- Now move the rectangle back to the start.
- Move it down 3 squares. Write the new co-ordinates. How have they changed?
- Experiment moving the rectangle up, down, left or right, seeing what happens.

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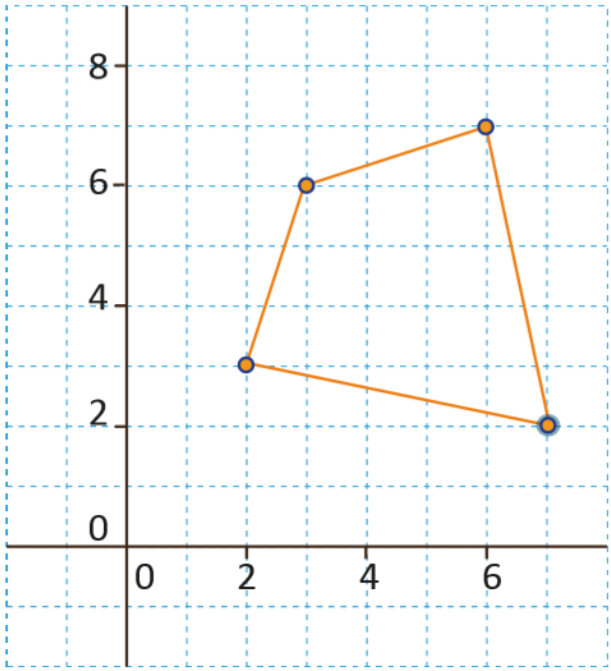
Investigation – Cycling co-ordinates

1. Write down four single-digit numbers, for example 2, 3, 6, 7.

2. Use these to produce four pairs of co-ordinates. Take the first two numbers to produce the first pair (2, 3), the second and third number to give the second pair of co-ordinates (3, 6), the third and fourth number to give the third pair of co-ordinates (6, 7) and then cycle round using the last and first numbers to give the last pair of co-ordinates (7, 2).

3. Plot the four points, then join them together. What shape have you drawn?



4. Now try 2, 6, 5, 1. What shape do they form this time?

5. Now try groups of your own four numbers. See what different types of quadrilateral you can produce?

   Can you write a rule for producing kites? Can you write a rule for producing squares?

Challenge

Do your rules work in all four quadrants?

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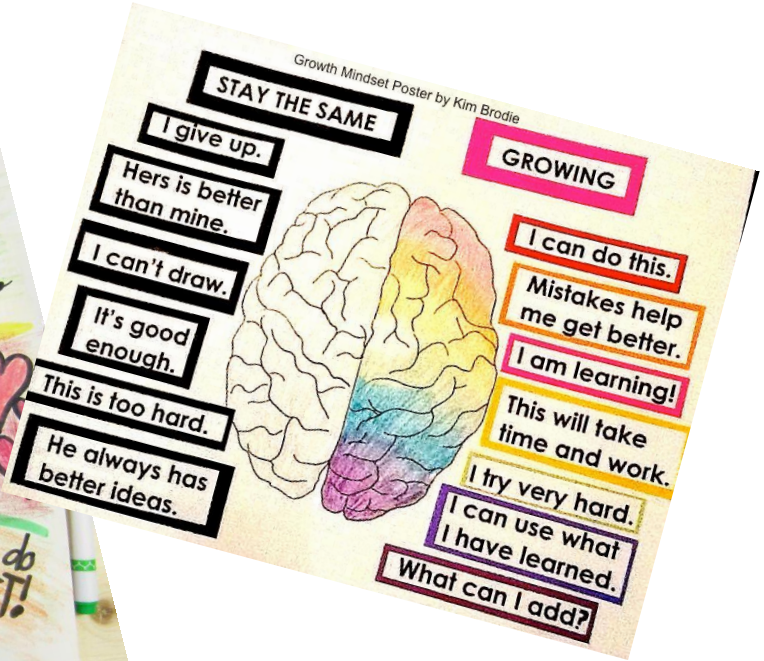
PSHE / ART – Positive thinking

We are going to create a piece of art work linked to our learning on positive thinking and how to change your attitude.

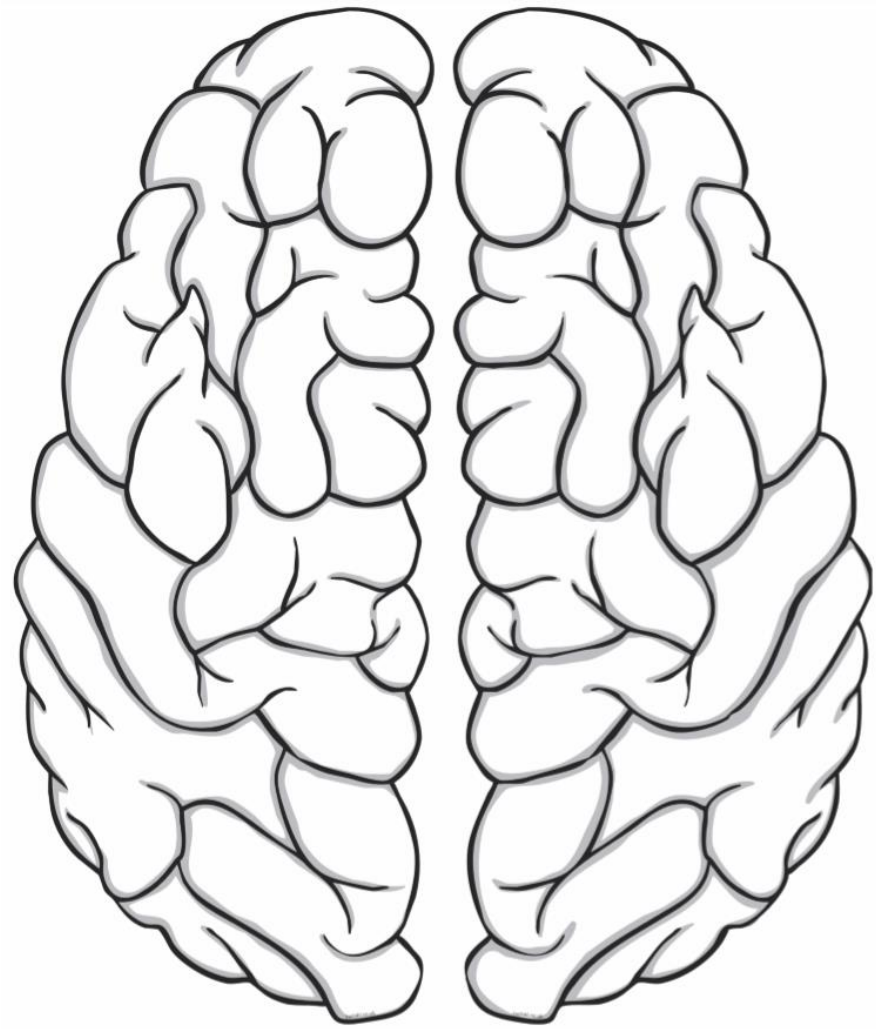
Use your ideas from Activity 3b to write a list of fixed mindset statements that you might say to yourself when facing a particular challenge at home or at school. You might want to link it to moving to high school. Now think of positive growth mindset words to replace these thoughts and jot them down.

Draw the two sides of the brain. You can print off the next slide or draw your own. On the left side, show the fixed mindset thoughts, and on the right hand side the positive growth mindset attitude to replace these with. Be as creative as you can! You might want to include statements you are actually thinking when faced with your chosen challenge. You can add colour and drawings to your art work to show the differences between the two sides.

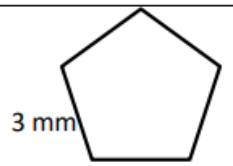
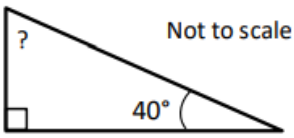


Remember, everyone has different thoughts and feelings so make it as personal as you can.

When you are next faced with a challenge, look back at your art work to inspire you to change your attitude and think positively and be brave.



ANSWERS Maths Activity 2a – Ten in ten

1.	½ (4 x 5 – 6)	7
2.	The temperature is 5.5°C. It falls by 7 degrees in the night. What is the temperature now?	-1.5°C
3.	What is the perimeter of this regular pentagon? 	15 mm
4.	23 – 7 x 3	2
5.	What is the remainder when 32 is divided by 7?	4
6.	What is the missing angle? 	50°
7.	The ratio of lions to tigers in a zoo is 3:5. If there are 9 lions in the zoo, how many tigers are there?	15
8.	I have £78. I spend £45 on some Blu-Ray discs and £12 on a T-shirt. How much money do I have left?	£21
9.	A toy car costs £60. It is reduced by 10% in a sale. How much does it cost in the sale?	£54
10.	Find the mean of 16, 12, 14, 7 and 6.	11

ANSWERS Maths Activity 2b – Translated quadrilaterals

1. Shape A moves 11 squares along to the right and 5 squares down.
2. Shape C moves 12 squares along to the right and 4 squares down.
3. Shape E moves 5 squares along to the right and 5 squares up.
4. Shape G moves 6 squares along to the right and 4 squares up.
5. Shape J moves 8 squares along to the right and 3 squares up.

Which pair of shapes have a translation of 11 horizontally? A and B

Which pair of shapes have a translation of 3 vertically? J and K

Which pair of shapes have the greatest translation horizontally? C and D

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