

Monday

<https://www.youtube.com/watch?v=E4XXbuAmcQQ>

This video introduces you to translation. It is really important that you watch carefully because the teacher explains how to avoid a mistake which I see ALL OF THE TIME! If you cut corners, you will also make this mistake, so don't do it.

In the second half of the video, the teacher introduces you to vectors. **It is a really good idea to copy a vector into your book and note down what each number means.**

When you have watched the video, you need to complete the worksheet called **Monday Translation**.

Tuesday

https://www.youtube.com/watch?v=qR_8E6KzTo

This video recaps yesterday's work but also shows you how to find the co-ordinates of the vertices of your object and image.

Today we will be doing more translations, but we will be investigating what happens to the co-ordinates of the shapes that we are moving (or translating). We will be working in 2 quadrants today so remember to use negative x-coordinates if you need to.

When you record the co-ordinates of an object and its image, it makes sense to write the new co-ordinates directly underneath the original ones.

A (4,2) B (4,4) C (2,4)

A¹ (0,1) B¹ (0,3) C¹ (-4, 3)

This makes it much easier to stay organised and see what happens to the co-ordinates.

Today's task is to write down the co-ordinates of the object and image for each question on **Monday's Translation sheet**. Record your co-ordinates on the sheet called **Tuesday Translation**. You then need to see if you can come up with a rule for what happens to the co-ordinates when you translate them. Look at the vector and look at the change in the co-ordinates.

Then have a go at the rest of the worksheet. If you need to, plot the points on a grid to help you complete the translation. However, some of you may be able to calculate the co-ordinates of the image without plotting the points.

Wednesday

<https://www.youtube.com/watch?v=o1VPXrdflfw>

This video is a little bit longer than the earlier ones but it is really good for showing you what reflections look like. The teacher has some crazy software which allows him to change where the vertices are and the reflection changes too. This helps you to become familiar with what a reflection should look like, as it is always a good thing to ask yourself "Does it look right?" when checking your work. Some of his reflections are more advanced than I am going to ask you to do, but the method he uses for working out where a reflected vertex should go is exactly what I would do. Once you have watched the video, have a go at the worksheet called **Wednesday Reflection**. Remember to write the image co-ordinates underneath the object co-ordinates, just like you did yesterday.

Thursday

Today you have a worksheet to complete but no new video as you need some practice now to consolidate your learning. This time the mirror line is not the x-axis or the y-axis. It is a new line, which I have shown with a dotted line on the worksheet. You still count the squares from each point to the mirror line, and then count them again on the other side to find where your reflected point is. Plot each point in this way and join them with a ruler before writing the co-ordinates of both shapes underneath the grid. Can you see how the co-ordinates change this time? It isn't as easy as yesterday's work, but some of you may spot how you can do this without plotting points.

Friday

Today is just a bit of fun! You need to reflect each coloured square on the grid in the x-axis and in the y-axis. Each coloured square should result in 3 new coloured squares if you keep reflecting it. Keep going until you have reflected every square – make sure you use the right colour to create a pattern.