

Year 4 Maths No Problem workbook, Chapter 13, lessons 3 – 5, chapter consolidation and review 13, and Chapter 14, lesson 1, 29/06/20

Lesson 3: Plotting Points

Textbook pages: 205 – 208

Lesson Objective

To be able to plot specified points and draw sides to complete a given polygon.

Lesson Approach

To begin this lesson, show pupils the In Focus task and give them some time to discuss the coordinates. Prompt them by asking questions, such as: What shape are we making? What properties does the shape have? Where should we plot D to make the shape? What if we changed the shape; would it change the position of D? What do you know about a trapezium?

Allow pupils to discuss in pairs, where D should be positioned to make a trapezium. Then ask for volunteers to plot D. Does it make a trapezium? Check using the side properties. Does anyone have a different position for D which also makes a trapezium? Work through the examples shown by pupils. How many different positions can D be in if we are drawing a trapezium?

Ask pupils to work in pairs to plot D to make the figure symmetrical. How many symmetrical figures can they make? Go through Let's Learn with pupils and identify the different coordinates for D.

During Guided Practice, pupils are plotting quadrilaterals using given coordinates.

Lesson 4: Describing Position

Textbook pages: 209 – 212

Lesson Objective

To be able to describe movements between positions as translations of a given unit to the left/right and up/down.

Lesson Approach

To begin this lesson, show pupils the In Focus task and provide them with grids and coloured triangles. Model the movement of the blue triangle to the position of the red triangle and ask pupils how many units the blue triangle moved. Ask if it has moved up or down. Then state that the triangle has moved up by 4 units. Give pupils time to experiment moving the triangles to each new position, describing the movements using units and up and down, left and right.

Introduce the term 'translate' and tell pupils that what they have been doing with the triangle is called a translation. Show them Let's Learn 2. Discuss the term 'translate' and

encourage pupils to use it when describing the movements. Ask them to try describing the movement of the blue triangle in Let's Learn 3.

During Guided Practice, pupils are describing movements. Discuss where they have seen the map previously and describe the first translation to ensure they fully understand the task.

Lesson 5: Describing Movements

Textbook pages: 213 – 215

Lesson Objective

To be able to describe movements between positions as translations of a given unit to the left/right and up/down.

Lesson Approach

To begin this lesson, show pupils the In Focus task and discuss the problem with them. What is it asking us to do? Can you name the vertices of the rectangle ABCD? Where are the coordinates (7,8)? Can you mark it? If we move the rectangle, which of the 4 vertices will end up at (7,8)? Allow pupils to discuss the question and ask for feedback on their thoughts.

Can there be more than one solution? How do you know? How many solutions can you find? Give pupils some time to work together and find solutions. Then work through Let's Learn using the images to support the examples being provided by pupils. Ask pupils what strategy we can use to solve this type of problem. Which vertex can be labelled (7,8)? If vertex A of the rectangle is at (7,8) we can mark it as A, then plot the other 3 vertices and draw the rectangle. How can we describe this movement? We can describe the translation by using vertex A and move it along the x axis and y axis until it reaches (7,8).

During Guided Practice, pupils are describing the translations of a triangle.

Lesson 6: Chapter Consolidation

Textbook pages: 216 – 218

Lesson Objective

To be able to use knowledge of position and movement to solve problems.

Lesson Approach

Mind Workout in textbook and workbook

Pupils translate, turn and reflect a rectangle and record the new coordinates of vertex A.

Maths Journal

Pupils create a drawing using their own coordinates and write a story to go with it.

Self Check

Pupils complete this as a chapter summary and discuss what to do with their teacher if any boxes are not ticked.

Review 13, pages 167 – 170.

Chapter 14 – Roman Numerals

Chapter Overview

In this chapter, pupils will learn to read and write Roman numerals. They will learn how Roman numerals were used and how they are still used today.

Lesson 1: Writing Roman Numerals for 1 to 20

Textbook pages: 220 – 222

Lesson Objective

To be able to write Roman numerals to 20.

Lesson Approach

To begin this lesson, show pupils the In Focus task. Perhaps watch a short video clip about Roman numerals and allow them time to discuss their relationship with the numerals we use now.

Work through Let's Learn recording Roman numerals. Ask pupils what they notice about the relationship between 1 and 10, and 2, 20 and 10? How could 30 be recorded? Why? Can you spot any other patterns like this? Give pupils time to work on this with their partner before asking for responses.

Next, ask them to look at 4 and 9. What is the same about these numbers? Why do you think they have been recorded in this way? Ask pupils to write the numerals 1 to 10. Then they can combine 10 and 1 to 9 to form 11 to 19. Help pupils to organise the numbers by creating a chart such as in Let's Learn 4.

During Guided Practice, pupils are reading and writing Roman numerals.