Year 4 Maths No Problem workbook, Chapter 10, lesson 12, mind workouts, review 10 and Revision 3, and Chapter 11, lessons 1-2, week beginning 01/06/20

Lesson 12: Solving Problems Involving Scale Reading

Textbook pages: 125 – 128

Lesson Objective

To be able to solve word problems involving measurements.

Lesson Approach

To begin this lesson, show pupils the In Focus task and discuss recipes in general with them. Prompt the class with questions, such as: What is the purpose of a recipe? Has anyone used one before? What details do recipes have? What is the problem asking us to do with this recipe? Ask pupils to discuss this with their partners before sharing their thoughts with the class.

Tell pupils we are making more than the quantity in the recipe, so we have to think carefully about how many times larger we make the quantities to get the recipe correct. Ask them to discuss how much bigger 12 is than 4. Should we do the same to all the other ingredients? Why? Ask pupils to share their ideas, then show them how to calculate how much flour is needed as shown in Let's Learn. How much flour is needed for 8 eggs? How do you know? How did you calculate the answer? Repeat the same process for the oil. How many millilitres is this? What are the divisions on the scale?

During Guided Practice, pupils are solving word problems involving scale reading. Make them aware that all of the measures they have been learning may be included.

Lesson 13: Chapter Consolidation

Textbook pages: 129 – 130

Lesson Objective

To be able to apply knowledge of mass, volume and length to solve problems.

Lesson Approach

Mind Workout, pages 129 – 130 in the textbook and page 90 in the workbook.
Pupils solve a problem involving measuring volumes of water.

Maths Journal
Pupils explain their reasoning for choosing a possible mass for 10 £1 coins.

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

Review 10, pages 91 – 94 to be completed independently.

Revision 3, pages 95 – 102 to be completed independently.

Chapter 11

Lesson 1: Measuring the Surface that an Object Covers

Textbook pages: 132 – 134

Lesson Objective

To be able to measure the surface an object covers.

Lesson Approach

To begin this lesson, show pupils the In Focus task and provide them with copies of the photograph and some square tiles. Allow them time to experiment with covering the surface of the picture. Prompt them with questions, such as: How many squares do you think would cover the whole picture? Half a picture? Were you correct? How would you know if a quarter of the picture was covered? How many times does 1 square tile cover the surface of the photograph? Model counting the squares and state that the photo is 8 times as large as the surface of 1 square tile.

Display the image from Let's Learn 2 and allow pupils time to estimate the surface coverage before carrying out the activity. How many squares cover each surface? Which has more squares? Which surface is larger? Are you surprised?

During Guided Practice, pupils are estimating and measuring how many squares are needed to cover the surfaces.

Lesson 2: Measuring Area

Textbook pages: 135 – 137

Lesson Objective

To be able to find the area of rectilinear shapes by counting squares.

Lesson Approach

To begin this lesson, show pupils the In Focus task and provide them with 4 square tiles each. Ask them to make as many shapes as they can using up to 4 squares. Remind them that to make a shape, the squares must touch each other on at least 1 side. Ask pupils to show all the shapes they can make with 3 squares. Does the number of square units change if the shape changes? Why not? Then ask pupils to show all the shapes they can make with 4 squares. Guide them to see that a variety of shapes can be made with 4 squares and they all have the same area as they cover the same amount of surface area as 4 squares.

During Guided Practice, pupils are forming figures using square tiles and sorting them according to area.