



Colin and Coco's Deliberate Practice

Year 5 Unit 12

Measurement: Area and Volume





Contents

This pack of deliberate practice is designed to be used flexibly to secure the manageable steps of this unit.

The table below indicates which activities are linked to which manageable steps.

	Do It	Challenge It	Play It
Make connections between arrays and calculating the area of rectangles			1
Calculate the area of rectangles (not squares)	1		
Calculate the area of squares	1		
Find an estimate for the area of shapes that are not rectangles		1	
Find an estimate for the volume of a 3D shape		2	2
Estimate capacity			



Calculate the area of the rectangles

2cm

7cm

Area =

4cm

6cm

Area =

3cm

Square

Area =

8cm

3cm

Area =

6cm

5cm

Area =

6cm

6cm

Area =

9cm

4cm

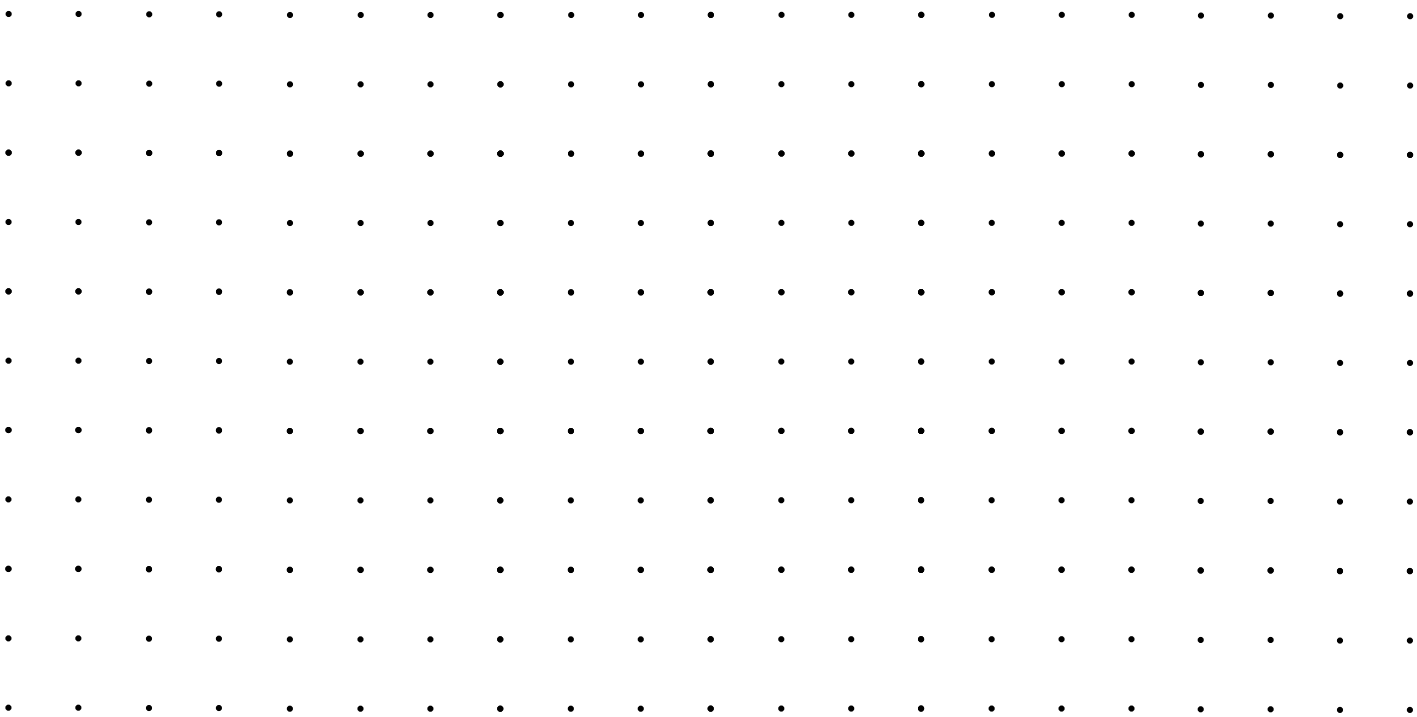
Area =

10cm

1.5cm

Area =

Draw shapes with an area of $5\frac{1}{2} \text{ cm}^2$





Area Game

Play It 1

You need:

Two 1- 6 dice

Area Grid (next paper)

To play:

Players take it in turns to roll the two dice and multiply the two numbers together. The answer is the area of their rectangle.

Players draw and shade a rectangle with that area on their grid.

Players keep rolling the dice and drawing rectangles until they have an area that they can not draw on their grid.

At this point the game stops for that player.

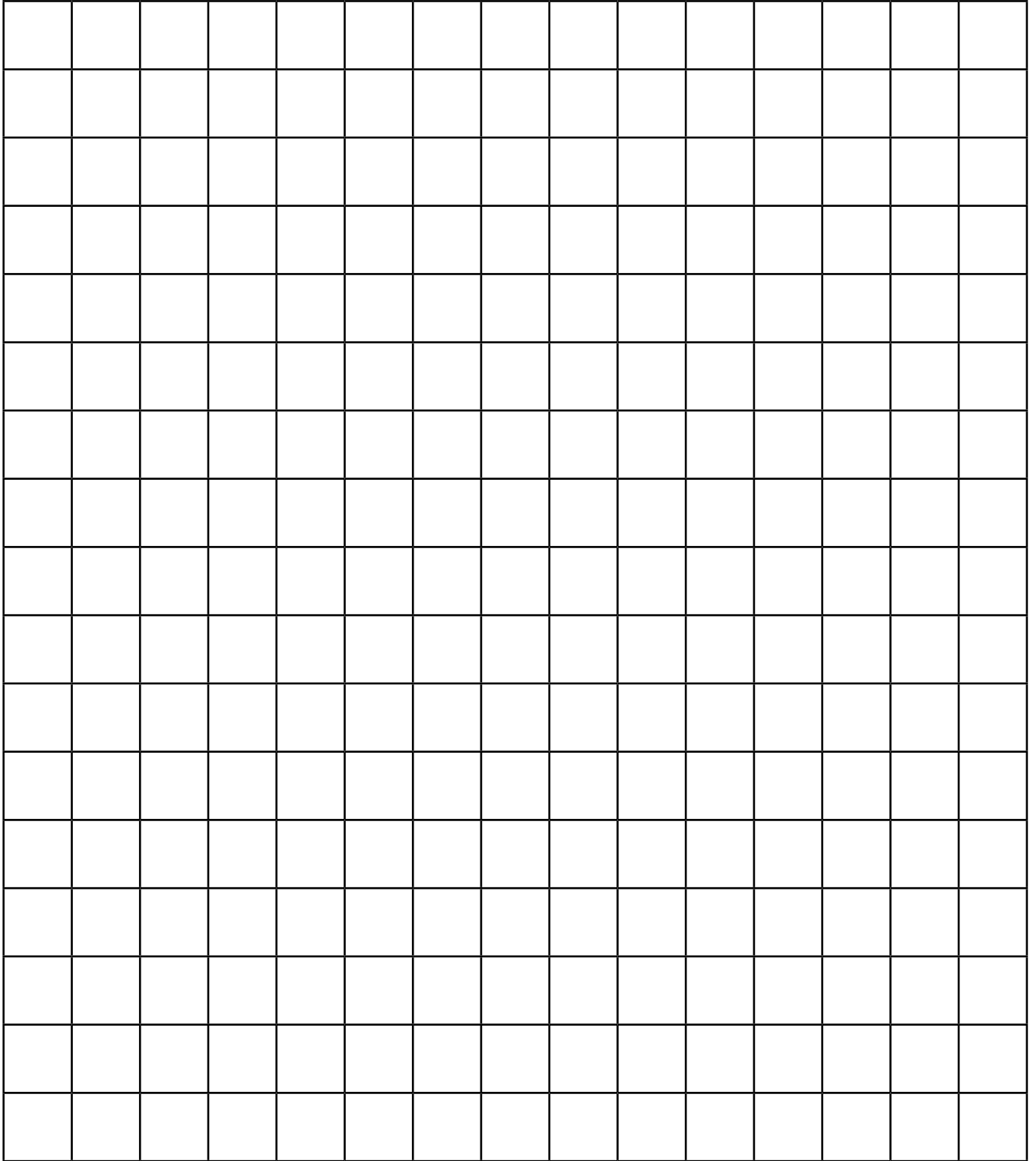
The number of unshaded squares left on their grid is their score.

To win:

The winner is the player with the lowest score after three games.



Area Grid





Do It 2

Estimate the capacity using millilitres or litres

Mug

Teaspoon

Bucket

Cup

Can of Drink

Paddling pool

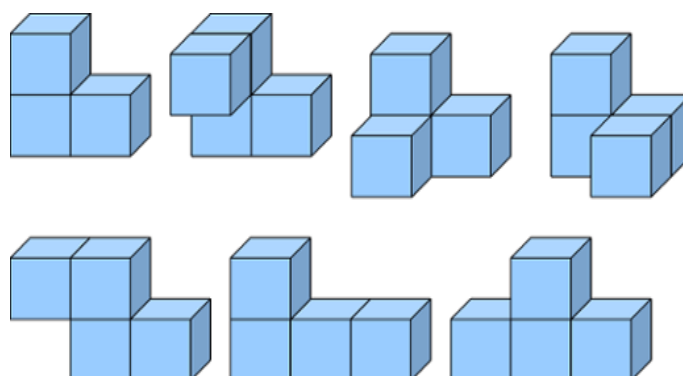
Bottle of lemonade

Bath

Cube Challenge

Challenge It 2

Use multilink cubes to make these seven pieces.



The seven pieces make a cube.

Make a prediction about the dimensions of the cube.

Use the seven pieces to make a cube and check your prediction.



Volume Activity

Play It 2

You need:

Two 1- 6 dice

1cm³ multilink cubes

To play:

Players take it in turns to roll the dice and multiply the two numbers together.

The answer is the volume of their cuboid.

Players use their multilink cubes to make as many different cuboids with that volume.

The player scores one point for each different cuboid.

To win:

The winner is the first player to score 10 points.