Repeating patterns (1)

National Curriculum attainment targets

• Count in multiples of twos, fives and tens

• Identify and represent numbers using objects and pictorial representations

Lesson objective

• Recognise and create repeating patterns with objects and with shapes

Previous related lessons

Unit 1, Week 1, Lessons 1–4; Unit 5, Week 1, Lessons 1 and 2

Prerequisites for learning

Pupils need to:

• be able to count in ones and twos confidently and accurately

• be familiar with using number tracks

**Vocabulary**

pattern, repeating pattern, predict, count in ones, twos … ,  
continue, how many?, what comes next?, shape, circle,  
triangle, square, rectangle

Future related lessons

Unit 5, Week 1, Lesson 4; Unit 8, Week 1, Lessons 1–4;  
Unit 9, Week 1, Lessons 1–4

Success criteria

Pupils can:

• recognise repeating patterns and continue them correctly

• create simple repeating patterns



Getting Started

• Choose an activity from Number – Number and place value.

• Choose a game or activity from *Fluency in Number Facts: Y1/Y2 –* Number and place value.



**Year 1, Unit 5, Week 1**

Teach

Resources

four different sets of eight shape cards, e.g. eight squares, eight circles, eight triangles and eight rectangles (per pair); paper and colouring pens (per pair)

publishing$:TYPESETTING:Project Code:Harpercollins:PDF to Word files:Busy_Ant_Maths:INPUT:Setup:Icons:jpeg:graph.jpg• Display: the Number Line tool showing the numbers 0–20. Count on in steps of 2 from 0 to 20  
with children: 0, 2, 4 ... 20.

• Ask: **How did we count? Did we count on or back? Did we count in ones?** Establish that you  
counted on in steps of 2.

• Ask: **What did you notice about the numbers that we counted?** (they are all even)

• Count on in steps of 2 from 1 to 19 with children: 1, 3, 5 … 19. Ask children how they counted,  
and establish that, again, they counted on in steps of 2.

• Ask: **What did you notice about the numbers that we counted this time?** (they are all odd)  
Point to each number from 0 to 10 in turn. Say: **Even number, odd number, even number, odd  
number, even number, odd, even, …** (continue up to 10)**.** Say: **This is a *pattern* of odd and even numbers.**

publishing$:TYPESETTING:Project Code:Harpercollins:PDF to Word files:Busy_Ant_Maths:INPUT:Sample:Icons:jpeg:2.jpg• Display: Slide 1 showing four circles in an alternating pattern of red, white, red, white.

• Say: **Red circle, white circle, red circle, white circle.** (Point to each in turn.) **What comes next in this pattern? Can you predict what will be next to this?** (Point to the final white circle.) Agree a red circle. Click to reveal the continued pattern to check.

• Say: **This is a pattern of red and white circles.**

• Ask children to look at the pattern, then close their eyes. Click on one of the circles to hide it.  
Ask: **What is missing?** Agree what is missing (a red or white circle). Invite children to explain  
how they know before revealing the missing shape to check.

• Distribute shape cards among children.

publishing$:TYPESETTING:Project Code:Harpercollins:PDF to Word files:Busy_Ant_Maths:INPUT:Sample:Icons:jpeg:11 copy.jpg• Display: Slide 2 showing a circle and a triangle next to each other.

• Say: **Here is another pattern. What comes next? If you have the shape that comes next, hold it up.**

• Click to reveal the next shape in the pattern (a circle) to check children’s answers.

• Repeat for the next shape in the pattern (a triangle).

• Reveal the rest of the pattern, asking children to predict what shape will be next each time.  
Say: **Circle, triangle, circle, triangle, …** (Point to each shape in turn.)

publishing$:TYPESETTING:Project Code:Harpercollins:PDF to Word files:Busy_Ant_Maths:INPUT:Sample:Icons:jpeg:12 copy.jpg• Display: Slide 3 showing another *a, b, a, b* pattern: a square followed by a rectangle, and repeat  
as above.

publishing$:TYPESETTING:Project Code:Harpercollins:PDF to Word files:Busy_Ant_Maths:INPUT:Sample:Icons:jpeg:6 copy.jpg• Display: Slide 4 showing an *a, a, b, b* sequence of two triangles followed by two squares.

publishing$:TYPESETTING:Project Code:Harpercollins:PDF to Word files:Busy_Ant_Maths:INPUT:Setup:Icons:jpeg:arrow 2.jpg• Point to the pattern and say the sequence with children.

Recite the

sequence of

shapes rhythmically, to help emphasise the pattern.



• Say: **Triangle, triangle, square, square. What comes next? If you have the shape that comes  
next, hold it up.**

• Click to reveal the next shape in the pattern (a triangle) to check children’s answers.

• Repeat for the next shape in the pattern (another triangle).

• Repeat for the next two shapes in the pattern (two squares).

• Reveal the rest of the pattern, asking children to predict what shape will be next each time.

• Point to the pattern and recite the sequence of shapes with children.

publishing$:TYPESETTING:Project Code:Harpercollins:PDF to Word files:Busy_Ant_Maths:INPUT:Sample:Icons:jpeg:13 copy.jpg• Display: Slide 5 showing another *a, a, b, b* sequence: two squares followed by two circles,  
and repeat.

Z:\TYPESETTING\Project Code\Harpercollins\PDF to Word files\Busy_Ant_Maths\INPUT\Setup\Icons\jpeg\7.jpgpublishing$:TYPESETTING:Project Code:Harpercollins:PDF to Word files:Busy_Ant_Maths:INPUT:Sample:Icons:jpeg:14 copy.jpg• Display: Slides 6 and 7 showing *a, a, b* sequences and repeat as above.

publishing$:TYPESETTING:Project Code:Harpercollins:PDF to Word files:Busy_Ant_Maths:INPUT:Sample:Icons:jpeg:4 copy.jpg• Ask pairs to choose two of the shapes on their cards and create their own repeating pattern,  
then to draw and colour it.

• Invite pairs to share their patterns by ‘reading’ the sequence of shape names. As they say the  
names, display the pattern using cards, but make a deliberate mistake, e.g. omitting a shape,  
repeating a shape, displaying the wrong shape.

• Prompt children, as needed, to spot the mistakes.

• Ask: **Did I show the pattern correctly? Is something missing? Is something there that shouldn’t be?**

Individualised Learning

**Activity Book 1B** – Page 4: Scarf sequences

Resources: coloured pencils (per child)

**Progress Guide 1** – Support, Year 1, Unit 5, Week 1, Lesson 3:  
Wallpaper patterns

Resources: scissors and glue (per child)

Refer to Activity 3 from the   
Learning activities on page 215.

Plenary

Resources

four different sets of eight shape cards, e.g. eight squares, eight circles, eight triangles and eight  
rectangles (per pair)

• Share children’s pattern work with the class.

• Display the first repeating part of each pattern and ask children to help you continue it.

Z:\TYPESETTING\Project Code\Harpercollins\PDF to Word files\Busy_Ant_Maths\INPUT\Setup\Icons\jpeg\8.jpg• Display: Slide 8 showing an incomplete pattern.

publishing$:TYPESETTING:Project Code:Harpercollins:PDF to Word files:Busy_Ant_Maths:INPUT:Sample:Icons:jpeg:4 copy.jpg9-11y• Say: **Two shapes are missing from this repeating pattern. Can you tell which they are?**(two squares)

• Display: Slides 9–11 and repeat the exercise.

Overcoming Barriers

• Children sometimes confuse the order of the shapes in a repeating pattern. Begin with simple *a, b, a, b,* … patterns and  
encourage children to say the pattern aloud as they point to each shape in turn. Recite with them, e.g. ‘square, circle, square,  
circle, …’, ‘blue, red, blue, red, …’, until they can continue independently.