

Recognising Patterns

USING OBJECTS FROM A FARM TO LEARN ABOUT RECOGNISING AND MAKING PATTERNS

ESSENTIAL QUESTION

How do you know what comes next in a pattern?

WHAT ARE WE LEARNING?

- To continue and create patterns with up to two variables
- To recognise the unit of repeat in a pattern
- To represent a pattern using letters, numbers and symbols

TRY THIS WITH

- Years 2-3
- Students who have an interest in solving maths problems
- Students who love using equipment to help them understand

FIND

- Match
- Predict
- Recognise
- Interpret
- Duplicate
- Listen

Introduce the concept of patterns by displaying a selection of simple examples made with shapes, colours and pictures. Ask students what they notice.

Make predictions about what comes next in each pattern.

Discuss how students could make a pattern using their classmates. Use volunteers to demonstrate suggestions.

Play Pattern Matcher. Discuss how the patterns can match in Level 2 when the pictures are different.

Model using numbers, letters and symbols to represent a pattern (eg. If it has two elements it could be 1,2,1,2 or a,b,a,b or alternating images of a square and rectangle).

APPLY

- Practise
- Represent
- Arrange
- Reorganise
- Construct
- Identify

Practise making patterns using a range of equipment such as counters, unifix cubes, cuisenaire rods, cutlery or buttons.

Give students a range patterns to attempt.

Include a pattern with a certain number of variables, a pattern done colour or shape, a pattern done by placing the equipment horizontally or vertically or a pattern done by alternately stacking the buttons two high then four high.

Vary the degrees of difficulty as is appropriate for the level of the students. Some students might need simple patterns to try and replicate.

Make attempts at representing each pattern using letters, numbers and symbols.

PRODUCE

- Create
- Think
- Test
- Elaborate
- Select
- Change

Complete the I can make a pattern activity. Support students where necessary.

Ask students to share the patterns they made. Can they explain their pattern? Can other students guess what the letter, number or symbol representation could be? This would be a great opportunity to record the students showing their learning if you have a class blog.

Choose some of the more simple examples. Create the same type of pattern as a class by making noises, doing actions or using body parts. For example if the pattern is calf, calf, rooster this could be represented by making the correct animal noises.

SUCCESS CRITERIA

Students can check they have successfully completed the task by:

- Making a pattern using at least two of the images
- Correctly continuing existing pattern examples
- Attempting to represent their pattern using numbers, letters and symbols

PRINCIPLES	VALUES	KEY COMPETENCIES	LEARNING AREAS	WORD BANK	RESOURCES REQUIRED
Coherence High expectations	Innovation, inquiry and curiosity Excellence	Thinking Using language, symbols and texts	Mathematics and Statistics	Pattern Repeat Symbol Predict	<u>I can make a pattern activity</u> <u>Pattern Matcher</u>