TITLE: PATTERNS AND NUMBERS

Aim / Description:
The aim of this lesson plan is to develop the students understanding of the particular concepts of algebra by:

- exploring patterns
- extending and using patterns of shells.

For more information on sea animals and their habitats see teaching materials found at www.explorers.ie

Materials:

- Shells/stones collected from the beach (alternatively use different colour counters that you have in the classroom)

Activity:

EXTENDING AND USING PATTERNS

- Step 1. Divide the class into teams with three students in each.
- Step 2. Provide each team with a selection of shells and stones collected from the shore so that they have the following:
  - One student has a set of 12 shells in one colour
  - The 2nd student has a set of 12 shells in another colour
  - The 3rd student has a set of 6 stones
- Step 3. Ask the teams to count out a line of shells and stones, numbers 1-30 as follows: The 1st student marks all the even numbers with one colour shell. The 2nd student marks all the odd numbers with the other colour shells, and ask the 3rd student marks each group of five e.g. 5, 10, 15 with a stone.
- Step 4. Discuss with the students the pattern their shells and stones make.

Extension for Second Class

- Step 6. Using the shells/stones make up an example of a pattern for the students. Ask them to tell you what comes next?

  Example 1: Shell Colour 1, Shell Colour 1, Shell Colour 2, Shell Colour 2, Stone, ____ “What comes next”?

  Example 2: Shell Colour 1, Shell Colour 2, Stone, Shell Colour 1, Shell Colour 2, Stone, Shell Colour 1, ______ “What comes next”?

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Explorer Education Programme

Lesson Plan: Patterns and Numbers
Class: First Class / Second Class
Strand: Algebra
Strand Unit: Extending and using patterns

• Step 7. Allow students to use both shells and stones to make their own patterns.

Outcome/ Objective:

• Extending and using patterns

The children in the class should have developed skills in the following:

• Recognising patterns
• Differentiating between odd and even numbers
• Understanding and predicting patterns
• Counting in groups