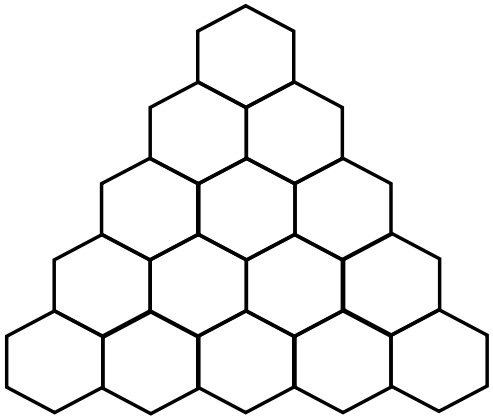
How Many Colours?

Use a grid of hexagons like the ones below.

The challenge is to colour it in using the **least number** of colours following the rule that no hexagon touches a hexagon of the same colour

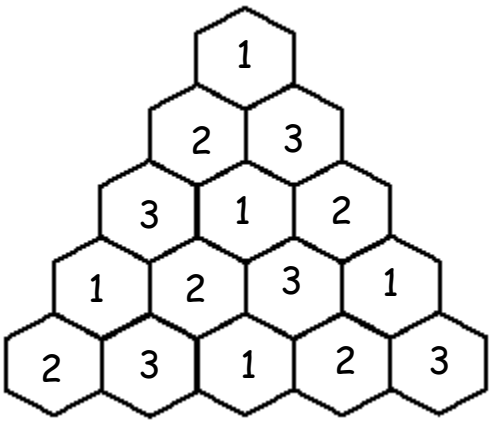


- What do you notice about the pattern of colours?
- Predict the sequence of colours if another row of hexagons is added
- What would happen if the grid of hexagons continued to grow?
- Try the same activity with a triangular grid

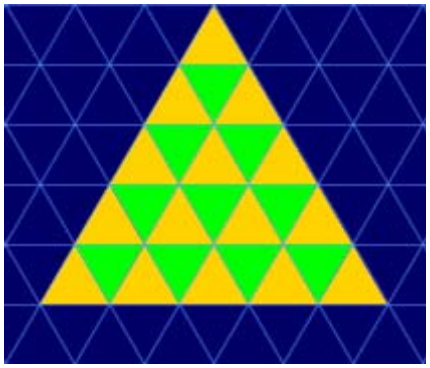
Learning and Teaching Objectives

- Use a systematic approach to solve a problem
- Select an appropriate way of recording
- Describe a rule of a pattern
- Predict the next few terms in a sequence to test the rule

How Many Colours Solution



3 colours



Triangular grid 2 colours