

Modelling - Patterns

Vocabulary: pattern, repeat, add, ten, total, square, triangle, trapezium, rhombus (include diagrams / symbols if relevant), rule, algebra

Reinforce self-correction and persistence

Maths is not 'tricky' – it might be challenging but maths won't trick you. It has rules.

Warm-up 1

My name has three letters. What could it be?

Record student responses.

Warm-up 2

Have a girl stand up and a boy stand up next to her. Who can continue the line?

Students join the line to continue the pattern.

To return students to the floor:

If you have <5 letters in your first name sit back on the mat.

If you have >5 letters...

If you have exactly 5 letters...

Warm-up 3

Equipment: 0-9 cards

Randomly give cards to ten students. Students line up across the front of the room.

The left end is the smallest number and the right end the biggest number. Students reorganise themselves in order.

Students lined up in order 0-9. Numbers 1, 3, 5, 7, 9 step back. 0, 2, 4, 6, 8 stay where they are.

What is the pattern? Do you know the name of the numbers which are back?

To swap cards: Give your card to someone sitting on the mat if you have...

The number of bears in Goldilocks

- wheels on a car
- fingers on right hand
- days in a week
- ears on your head
- six upside down
- goal in football
- number which means nothing, zip, zilch
- etc

Students with cards now line up. Praise their initiative if they automatically line up in order.

Warm-up 4

Equipment: 0-9 cards

Find a partner with a card that adds with yours to make ten. Emphasise adds, not looks like, so 1 and 0 cannot pair up.

After students have found their partner, see who is left. Why? Some students might allow 0 to join their group.

To collect cards,
Give me your card if you have:
the number after...
the number before...
the number between ... and ...

After collecting the cards, record the pairs on the board.
Can you see the pattern?

$$9+1$$

$$8+2$$

$$7+3$$

$$6+4$$

5 continue the pattern..

$$5+5$$

$$4+6$$

$$3+7$$

$$2+8$$

$$1+9$$

$$0+10$$

Student Activity

Make Me a Pattern

Equipment: Box of random buttons, pattern blocks,
A pattern must repeat.

Students make a pattern from buttons, pattern blocks, counters, chains, beads etc
Students make a pattern for themselves, then make a pattern for someone else to finish.
Complete at least two patterns for others to finish.

Record record record

Extension: 1, 1, 2, 3, 5, 8, __, __, __

Share Reflection

Whole class returns to the floor. "Come to the floor if you sit at a table that is made up of three rectangles. Come to the floor if you sit at a table that is made up of two rectangles."

Share some examples of students' work.

1, 1, 1

1 fact you found out

1 feeling you felt (can be a smiley face)

1 'fing' that was fun