3-6: REMOTE MATHS
EDITION 7

PATTERNS - DESCRIBE, CONTINUE, CREATE

Mathematical language: Describe, continue, create, next, after, before, pattern, skip, sequence, repeat, copy.

TASK 1: NUMBER PATTERNS

Create a number pattern for somebody else to follow starting at the following numbers

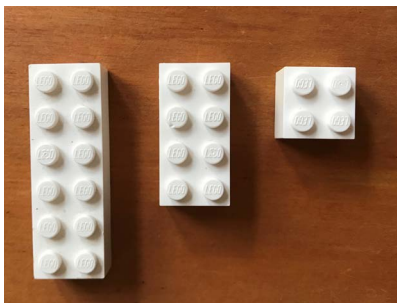
93 15 $3\frac{1}{2}$ 106

Supporting task: http://toytheater.com/number-pattern/

Extending task: Create a number pattern for somebody else to follow starting at the following numbers and counting backwards.

10.25 Seven eighths $3\frac{1}{2}$ 1.01

TASK 2: PATTERNS WITH LEGO



These LEGO bricks form a counting pattern, increasing by 4 each time.

- How many dots will there be on the 4th brick?
- How many dots would there be on the 10th brick?

What do you notice about the pattern of the brick position and the number of dots on the bricks? Hint: This is a great time to record your findings in a table!

Enabling prompt: Use LEGO to copy and continue the pattern

Extending prompt: Can you form an expression or equation to explain the relationship between the block position and the number of dots?

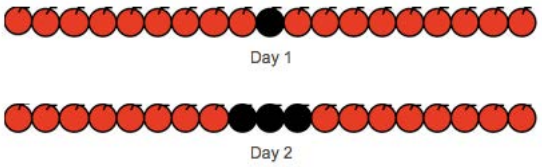
TASK 3: FIZZ BUZZ

Play this Buzz style game. Follow two number sequences at a time and press the button when a number from either sequence appears. Get to 50 before moving on to the next level and adding a third sequence.

https://www.transum.org/Tables/FizzBuzzer/

TASK 4: BAD APPLES *Source: AAMT Top Drawer.*

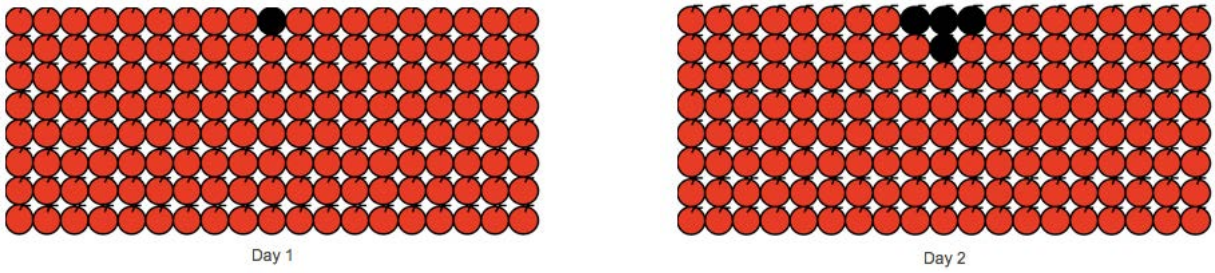
There are apples sitting in one row. Each day, any bad apple will turn any good apple that is touching it bad.



- On the first day, there is one bad apple.
- How many bad apples are there on the second day?
- On the third day, how many apples will be bad?
- How many bad apples will there be on the fourth day?
- What is the pattern of bad apples that is emerging?
- How many bad apples might their be on the 15th day? Explain your answer.

Extending prompt: Here is an array of apples – not just one row, but a whole tray of apples. On the first day, there is one bad apple.

- On the second day, there are four bad apples. Why?
- Explain the pattern that you find.



TASK 5: ALICE IN WONDERLAND

Watch and click through this presentation focusing on the patterns in Alice in Wonderland https://mathigon.org/fiction/alice#16

- Watch and read the information on each slide to discover the magical world of patterns.
- Enjoy!

MAV would love your feedback on these resources. Click on the link or scan the QR code.

https://www.surveymonkey.com/r/MAHhomelearning

Find more tasks on page 3.

LENGTH: MEASURE AND COMPARE OBJECTS

Mathematical language: Measure, compare, bigger, larger, biggest, largest, smaller, smallest, order, length, size, centimetres, millimetres, meters.

TASK 1: LEAVES

- Go outside and find a leaf.
- Find 3 things that are longer than your leaf.
- Find 3 things that are smaller than your leaf.
- Measure how long each object is including your leaf.
- Ordering your items from smallest to largest.

Extending task: Measure your objects to the nearest millimetre and record the difference of each object with your leaf.

TASK 2: VIRTUAL MEASURING

Have a go at this interactive online activity: https://www.funbrain.com/games/measure-it

Select 'Easy centimetres' for measurements in whole centimetres, or 'Medium centimetres' for measurements that have whole centimetres and a half centimetre. There are ten questions with multiple choice answers.

TASK 3: WHAT IS LONGER?

Compare these objects by measuring their height and the distance around the item. Create a table showing the two measurements and the difference between the measurements.

Object	Height/length	Distance around	Difference
Drink bottle			
Toothpaste tube			
A jar of vegemite or jam			
A pot plant			

Enabling prompt: To measure you may like to use a string and ruler.

EDITION 7: LENGTH (CONT.)

TASK 4: HOW LONG IS ONE METER?

Using just one A4 piece of paper, draw a line that is exactly 1 meter long.

Enabling prompt: When drawing your line include at least four 90° turns

Extending prompt: When drawing your line add all of these elements:

- no line segments that measure a whole number,
- two line segments that meet at a 45° angle, and
- be symmetrical.

TASK 5: MARSHMALLOW FERMI PROBLEM

How many marshmallows would it take to line your street?

- First estimate your answer
- Then work out a solution, without lining up the marshmallows along your street.
- Draw diagrams, create a table and /or write some equations to demonstrate your solution.

Extending prompt: If everyone in your class held hands and stretched out in a line, how many marshmallow long would the line be?

MATHS APP OF THE WEEK: KEN KEN

Ken Ken puzzles are fabulous to test logical and calculation skills.

Google Play

https://play.google.com/store/apps/details?id=kenkenclassic.com&hl=en_AU

iOS

https://apps.apple.com/au/app/kenken-classic/id485694706

Look out for more tasks next week!