# YsCŴL

# Magic Maths – Number Sequences (answers sheet)

Kjartan has shown us a brilliant trick in his video. He’s shown us that in order for the trick to work we have to put the cards in the right sequence.

There are lots of fun things we can do with number sequences.

## **The Fibonacci Sequence**

The Fibonacci Sequence is the series of numbers:

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, ...

The next number is found by adding up the two numbers before it.

* The 2 is found by adding the two numbers before it (1+1)
* The 3 is found by adding the two numbers before it (1+2),
* And the 5 is (2+3),
* and so on!

**Can you fill in the gaps below:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **0** | **1** | **1** | **2** | **3** |
| **5** | **8** | **13** | **21** | **34** |
| **55** | **89** | **144** | **233** | **377** |
| **610** | **987** | **1,597** | **2,584** | **4,181** |

Look up the Fibanacci Spiral or Golden Spiral on the internet and have a go and drawing one yourself. There’s a one minute video on BBC Bitesize: [**https://www.bbc.co.uk/bitesize/topics/zwg4d2p/articles/zqp37p3**](https://www.bbc.co.uk/bitesize/topics/zwg4d2p/articles/zqp37p3)

## **Make up your own numbers game.**

Draw a grid like the one above. Colour each square or draw a pattern in it. Put a number in the first square and then decide what number pattern you want to use. You might want each number to be 5 more than the one before it (1, 6, 11, 16) or maybe you want to start with a big number and subtract 10 each time (250, 240, 230, 220). Write the sequence on a separate piece of paper and then fill in your grid in using your new number sequence but leave some of the numbers out. Challenge your friends and family to see how quickly they can work out the sequence and fill in the gaps.

Send your number sequence grid in to your school to challenge your teachers and don’t forget to share your number grid and your spirals with us at Venue Cymru using the hashtag #ysCWL