



Geometry of flowers

BOX NOTICE

Name of the activity	Geometry of flowers
Activity duration	1h30
Material needed	Fibonacci box, math worksheet, ruler, compass, images of flowers which have a Fibonacci number of petals (Sequence 1) image of The spiral arms of galaxies, the image of ram horn, the image of Nautilus, the image of shells, the image of snail shell (Sequence 2)
Number of pupils involved (per box)	1-2

Step 1: Preparation

You may start the sequence by showing your pupils pictures with different flowers. Ask students how these flowers are different.

Step 2: Storytelling resources

Begin by discovering the box and read the story "Geometry of Flowers".

Step 3. Manipulation (for Sequence 1)

Using what they have learned, students will associate Fibonacci numbers with images of flowers that have a Fibonacci number of petals.



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MATHEMATICS

Step 4: Creation of the spiral (for Sequence 2):

Following the instructions in “How to create elements” students will draw a Fibonacci spiral 1,1,2,3,5,8,13.

Extension (for Sequence 2):

- a) Students can continue the spiral for Fibonacci numbers 21, 34, 55.
- b) Students will associate Fibonacci spirals with images of The spiral arms of galaxies, images of ram horn, images of Nautilus, images of shells, and images of snail shells.
- c) Let students know that this spiral appears in many places in nature. Have students enter “Fibonacci, spiral, nature” into a Google image search.

Students should write a list of the things they find or gather images and share these in a quick class discussion.



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