

“Beauty and the Phi Ratio” Online Course, Activity Attractor Words

To the learner:

Read through or listen to these words being read and choose two or three that interest you the most. Read or listen to the descriptions to decide which one to begin with. You are encouraged to work with others doing the activities. Be aware that you need to do each demonstration on your own, to get the badge.

Attractors:

1. Thinking something through
2. Flowers
3. Feminism
4. Numbers and shapes
5. Shells
6. One nice equation
7. Colouring
8. Cutting and gluing
9. Using logic
10. Geometry in apples
11. What is beauty
12. Crop circles
13. The real truth about $\sqrt{5}$

Notes to the facilitator:

- There is a “badge” concept by which the learner gets a physical and/or digital token (or certificate) after having completed a number of (e.g. 3) activities.
- The learner can choose to go through the course sequentially, or to “jump in,” according to interest in specific attractor words.
- These overlap to some extent.
- Unless otherwise indicated each of these could take 20-30 minutes to learn. Making the demonstration video is not included in this time.
- The learner who jumps into an activity may need to find background information themselves from other sections of the course
- Each activity calls for a separate (videoed) demonstration and evaluation; each activity is a separate badge/certificate/token (e.g. “arrow in the quiver”)

Further descriptions below:

1. Thinking something through - You’ll learn and use a very simple and useful framework for looking at topics and problems.

Activity: crop circle, or, “Beauty is...”

2. Flowers - See how flowers often arrange their flowers and seeds according to a certain

pattern.

Activity: "Phi in nature" template 1, colouring a seed diagram

3. Feminism - Use the thinking framework to compare and contrast "the feminist point of view on beauty" with other ways of looking at beauty.

Activity: "Beauty is..."

4. Numbers and shapes - See how numbers and a spiral are related through the special pattern.

Activity: "Fibonacci Numbers, Fibonacci Spiral" template

5. Shells - See and describe how nature makes a seashell spiral using a special pattern. Activity: "Phi in nature" template 2

6. One nice equation - See and explain the mathematical equation that describes the special pattern.

Activity: Deriving phi templates 1, 2 and 3. This will take longer than 20 minutes (but can be done in small chunks)

7. Colouring - Colour the special pattern found in nature

Activity: "3 shapes of phi," colouring seed patterns

8. Cutting and gluing - Using a special pattern, cut out a square, a rectangle and a circle section and recombine them to create another special shape.

Activity: "3 shapes of phi"

9. Using logic - See and explain an example of a logical argument that is related to the special pattern

Activity: Demonstrating PT

10. Geometry in apples - Cut open an apple to see and describe the star shape inside.

Activity: "The star in the apple" template

11. What is beauty - See and discuss different ideas about beauty.

Activity: "Beauty is..." template

12. Crop circles - See and compare some ideas about a certain crop circle's shape

Activity: "Phi in science" template

13. The real truth about $\sqrt{5}$ - See and compare the decimal-based explanation of square roots, and the visual explanation of square roots

Activity: $\sqrt{5}$ demonstration