

Good practices SCIEN_704AB_EN

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Description of the problem / exercise: **Symmetries in biology**

In biology, symmetry is the orderly repetition of parts in a living being. Simply looking at an organism reveals its external symmetry. There are several types of the symmetry of animals such as: radial symmetry, bilateral symmetry, spherical symmetry...

At the beginning of the activities, the teacher should provide an explanation about the animal symmetry to the students. This information could be in the form of a text, film or teacher's presentation. In this task, students should create different types of symmetry in the animal kingdom by using Poly-Universes.

Students should present their works and share their ideas with classmates. Through the discussion students should provide feedback to each other and if that is necessary provide corrections to their peers.

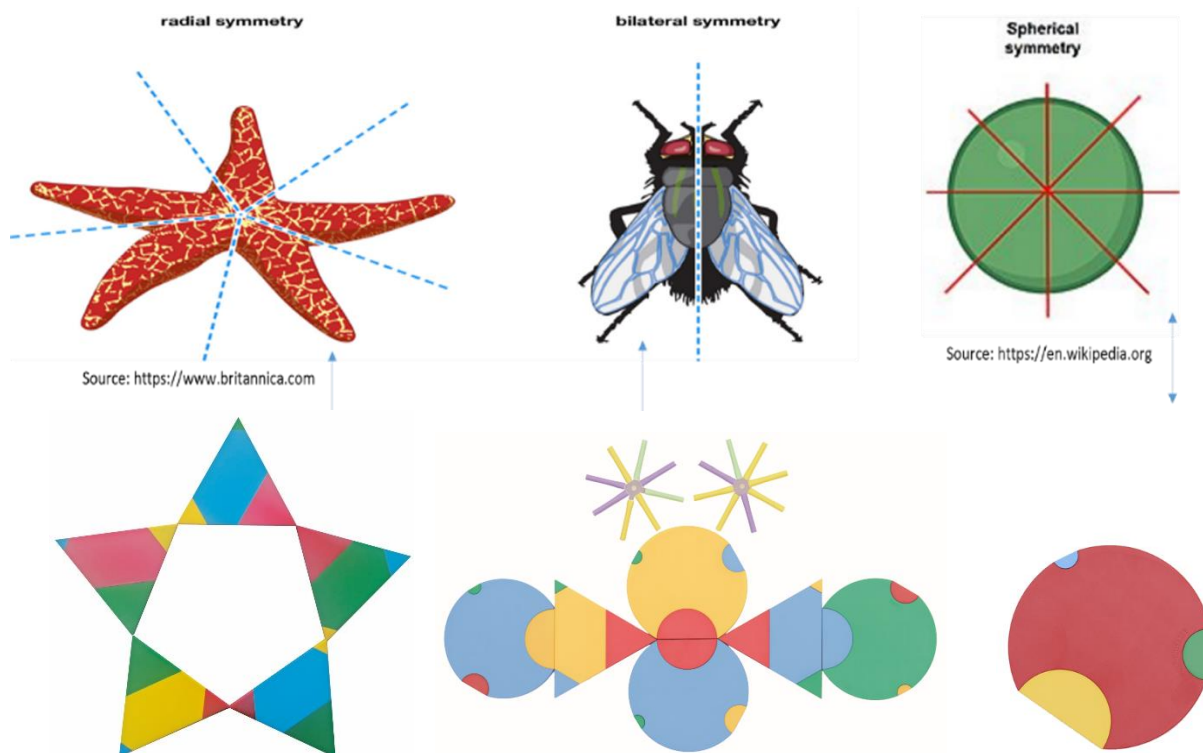


Figure 1: Some possible solutions are presented in below

- *Why this exercise is good:* Using the geometrical shape in the Poly-Universes the students can during the hands-on activities gain the knowledge about animal symmetry.

- *Level of teacher training:* Elementary school
- *School subject(s):* Biology, math, art
- *Comments:* The teacher can adapt this task to the student with different abilities by assigning them to create one or more animal symmetry from Poly-University. Less able students can create a small number of symmetry, contrary to gifted ones who can create more examples of animal symmetry.