Good practices
SCIEN_701BC_EN

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Description of the problem / exercise: **Modelling flowers with poly-Universe**

Task could be realized within the following steps:

Step 1: Students gain basic knowledge about the morphology of flowers of different plant families.

Step 2: Students analyze the photographs, schemes or fresh plant materials and increase their knowledge about the morphology of flowers of different plant families.

Step 3: By using the Poly-Universe sets students create the models of flowers of different plant families.

Step 4: Students present their models, discuss their solutions and provide feedback information to each other.

Some examples of possible solutions, which students can create as a model of different plant families, are presented in Figure 1.

Familia: Brassicaceae (Cruciferae)

Source:http://www.botany.hawaii.edu/.

Familia: Asteraceae (Compositae)
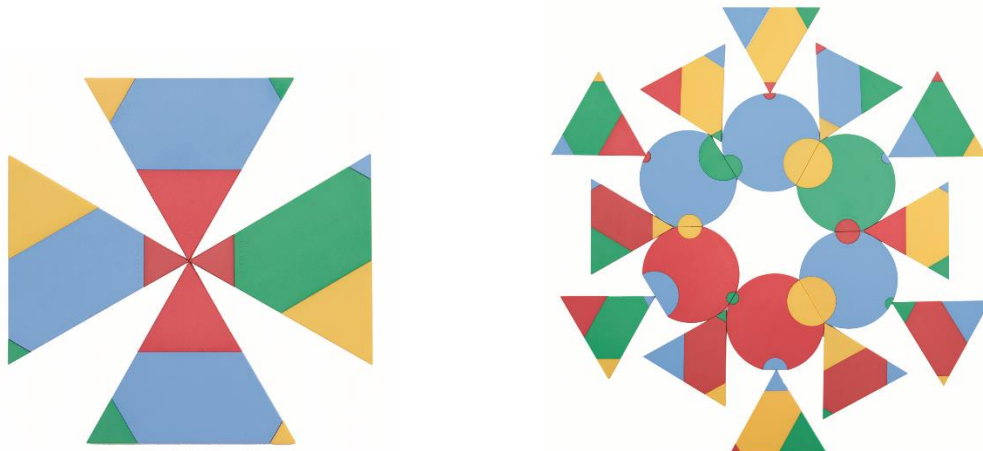
Source:http://www.botany.hawaii.edu/.

Figure 1: Possible solutions for plant families model creations from Poly-Universe sets.

- *Why this exercise is good:* This activity encourages student's creativity, knowledge implementation, fast feedback by peers, interdisciplinary learning and communication between the students.
- *Level of teacher training:* Primary and secondary school
- *School subject(s):* Biology, math, art
- *Comments:* Basically, simple and most common plant families could be a task for primary school students and more complicated and families could be a task for students in secondary school. This task can be easily adapted to the students with learning difficulties. For example, teachers can provide photos of created models of plant families and assign them tasks to create the model by using the Poly-Universe sets. On the other hand, teachers can increase the cognitive level of the task for gifted students. Teachers can set rules for gifted students, such as connecting only the same shape or color in the model creation. In this way, the task can be more challenging for students and allow them to fully develop their potential.