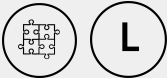Grades 1-4 (S), 5-8 (S), 9-12 (S)

Duration: 20 min

Tools: one Logifaces Set / group

Group work

Keywords: Sets, Subsets, Venn diagrams

206 - Find the Right Set

MATHS / LOGIC

Erasmus+

TEACHER

Logifaces

2019-1-HU01-KA201-0612722019-1

DESCRIPTION

Note: the following are three separate exercises, appropriate for different ages. Students form groups of 2, 3 or 4.

BASICS (Grades 1-4)

Students draw a large circle. Teacher says a property (eg. has 3 different heights), students sort matching pieces inside the circle, and the rest outside.
Possible descriptions: Has 3 different heights / Has a height which is 2 / It stays the same if you mirror it / Has a side which is a triangle / Has 8 corners (vertices)

VENN DIAGRAMS (Grades 5-12)

Students draw or the teacher hands out a large Venn diagram with 2 or 3 sets.
Possible labels for the sets (besides properties used above): Has rotational symmetry/Triangular prism/Pyramid.

SUBSETS (Grades 5-12)

Students draw two concentric circles (a set which is a subset of another one), and find possible labels (Eg. Has a height which is 2, Has 3 different heights), then sort pieces.

SOLUTIONS / EXAMPLES

We recommend starting with easier properties, then proceeding to more complex ones e.g. ones that yield to all pieces or no pieces.
For Venn diagrams start with instructions where there are pieces in all regions, then proceed to special ones (where the intersection is empty, or one is the subset of the other, etc)

PRIOR KNOWLEDGE

1-4th grade: None
5-12th grade: Sets, Venn diagrams

RECOMMENDATIONS / COMMENTS

1-4th grade: It is a great exercise to practise the basics of classification.
5-12th grade: It is a great exercise to practise sets and Venn diagrams.