Lesson Plan – Bills paradox

Goals:

Exercise and improve 2D geometric skills.

Commented description of materials to be used:

Bills paradox involves assembling a geometric shape with an area dissected into a number of parts, which afterwards get assembled into a rectangle with a smaller area into fewer parts. These introduce the concept of mathematical paradoxes related to geometry.

Suggestions:

These can also involve the idea of impossibility and self-contradictory statements.

Strategies:

After exploring the two paradoxes, we prompt learners to observe and compare the differences between the shapes. We continue with other paradoxes that use different geometrical shapes and allow learners to experiment and come up with their own approach to the paradoxes.

Suggestions:

Enable learners to write down a series of questions or statements to explore the paradoxes.

Appraisal / Evaluation of Students:

We use a set of different geometrical paradoxes.

Co-funded by the Erasmus+ Programme of the European Union

Assessment of lesson:

We compare the competence of the learners in observing differences between area, shapes and properties of geometric shapes at the beginning and the end of the lesson. Also, we qualitatively try to understand whether the learners can formulate their own hypotheses to these paradoxes and execute them.

Suggestions:

A series of questions can be made on how a statement can be considered a paradox and other paradoxes.

Closure:

Overview of activity and key points, feedback from learners for further improvements and/or adjustments to be made.

Co-funded by the
Erasmus+ Programme
of the European Union