

**Class:** Erasmus +

**Lesson length:** 45 min

**Room:** 05

**Subject:** Shifting the graph of a function along the axis

**Unit:** Functions

**Objectives:**

1. Coordinate geometry – cartesian plane
2. Using an interactive board to plot graphs of functions
3. Finding the rule for the pattern
4. Accurate graph plotting
5. Practical application of the acquired knowledge
6. Calculating data points necessary to plot a graph

**Assessment of outcomes:**

- Plotting the graphs of a function
- Shifting the graph of a function along the x-axis.
- Shifting the graph of a function along the y-axis.
- Shifting the graph of a function along a coordinate system

**Methods:**

ICT apps: GeoGebra & Flow!Works Pro for Interactive Board

Step	Activity	Stages	ICT app	Equipment
1	Welcome to the project participants	-	-	-
2	Introduction to the subject of the lesson – mathematical puzzles	Warm-up	Kahoot	-
3	Students demonstrate graphs of the following functions for the participants $y = x^2$	Plotting graphs of a function	Flow!Works Pro	Interactive board projector
4	Students explain the rules of shifting the graph of a function	Participants are introduced to the general rules of shifting the graph of a function along a coordinate system	PowerPoint	Interactive board projector
5	Presentation by students	Presentation of GeoGebra application	GeoGebra	Interactive board projector
6	Practical tasks	Project participants use the acquired skills to find patterns of a function and graph that satisfies given condition.	GeoGebra	Interactive board projector