SCENARIO		
Title	Describing the pyramids.	
Summary	The student will learn about the concept of a pyramid, learn to distinguish it from other solids, Will indicate the basic elements of these solids	
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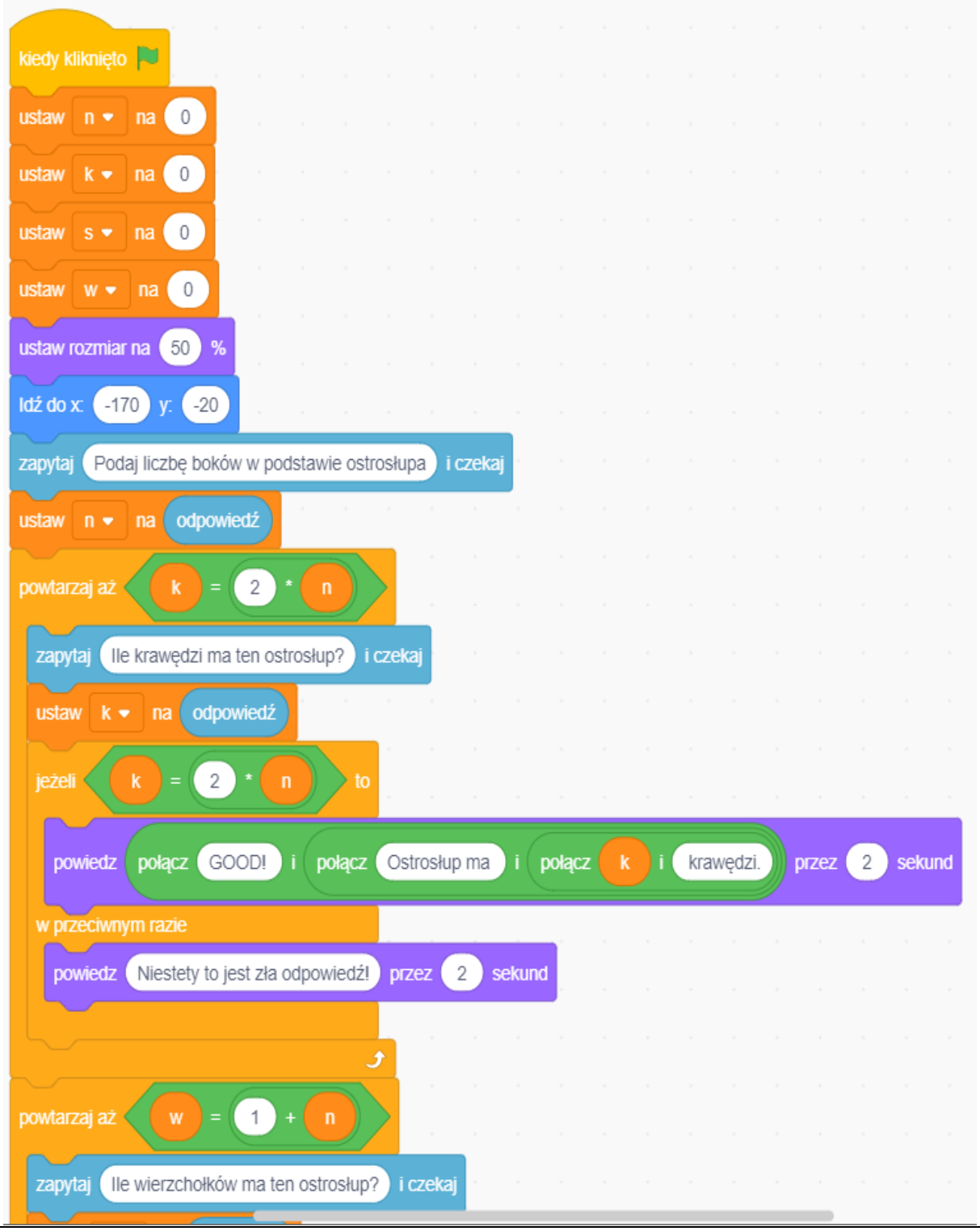
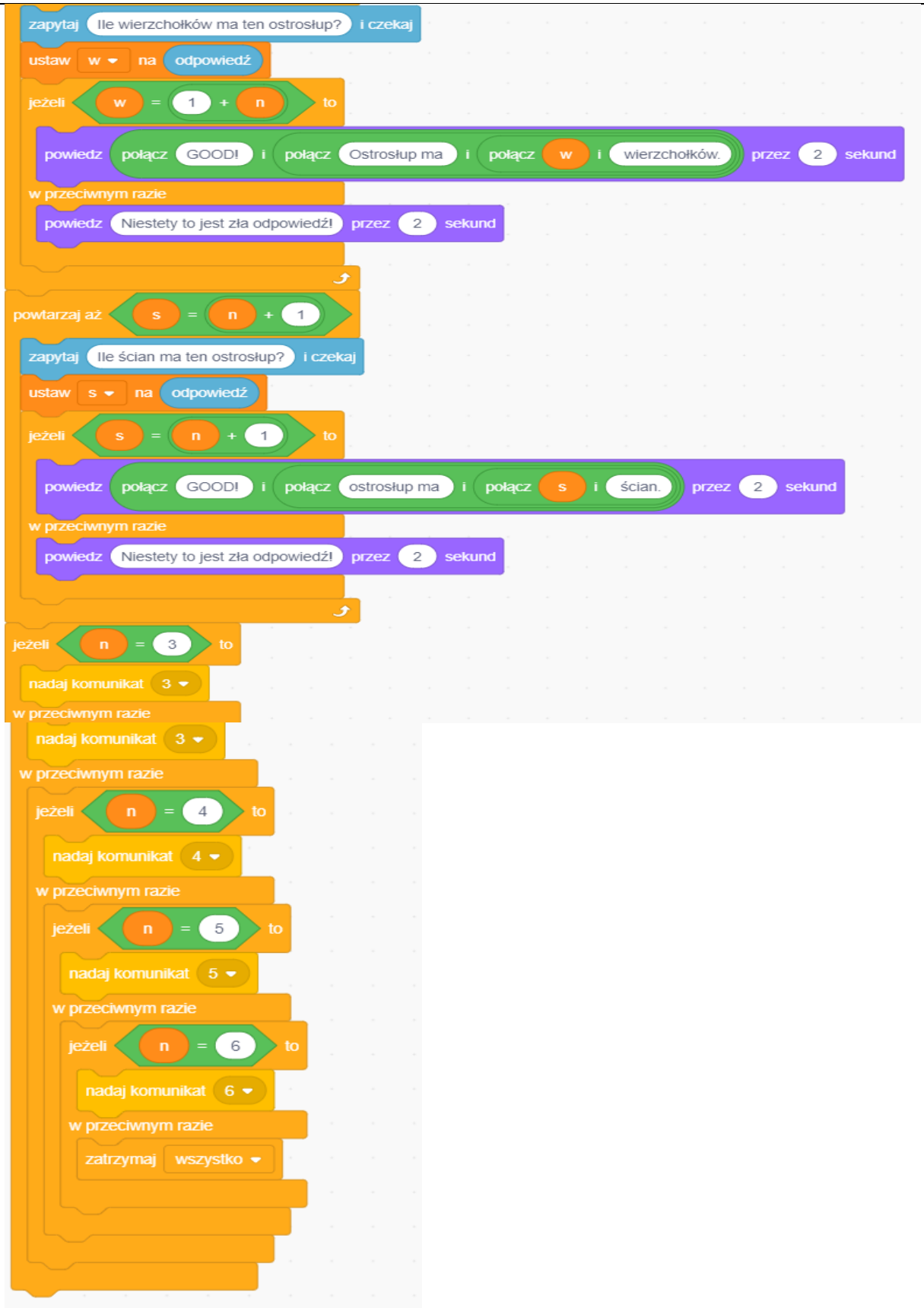
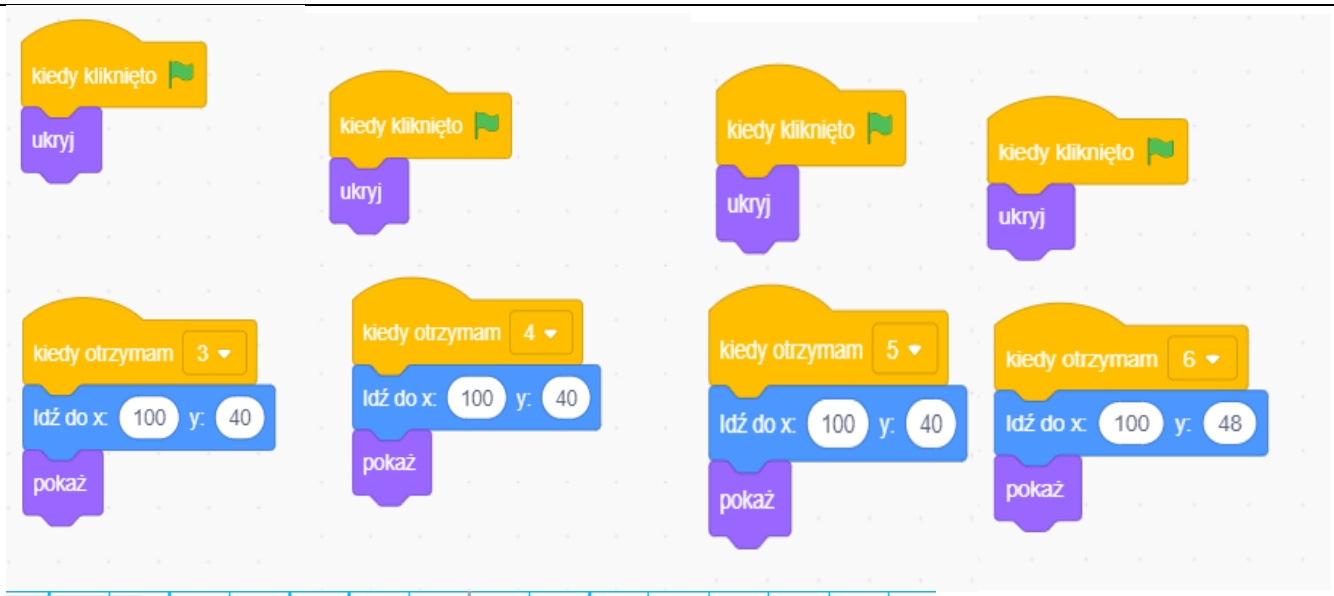
Didactic objectives
• distinguishes pyramids from various solids and gives their names; • gives examples of pyramids, eg in architecture and surroundings; • indicates the basic elements of the pyramids (eg base edges, side edges, solid height, heights side walls); • recognizes and draws pyramid grids; • draws pyramids.
Physics☐ Mathematics☒ Information☐ Technology☐ Robotics☐ Programming☐
Education Level: 10-12years☐ 12-14years☒
Problem Statement
What distinguishes pyramids from other solids? How many walls do they have, how many edges? How many vertices? How does their number depend on the polygon in the base? Where is the height of the pyramid?
BOM (Bill Of Materials needed)
Computer workstations, projector, scratch software
Activity description
1. Organizational and organizational activities 2. Introduction to the subject reminder of prisms 3. We introduce the concept of a pyramid. 4. We describe it and teach how to draw pyramids and their grids - you can on the basis of instructions. 5. We organize cooperation in small groups. Students will learn about the pyramid, its elements and types, including about the normal pyramid and regular tetrahedron (in textbooks, the Internet). 6. Students create a crossword puzzle taking into account the concepts appearing in the lesson. They prepare the crossword in two versions: to be solved and solved. After completing this task, each group passes its crossword to the neighboring group with a request to solve it. Verification of the correctness of the crossword solution is based on the solution of the group that arranged the crossword. 7. Solving various tasks regarding the ownership of pyramids. 8. Working with the scratch program, we calculate the number of faces, edges and vertices in selected models. We check the correctness of the calculations. 9. Summary.

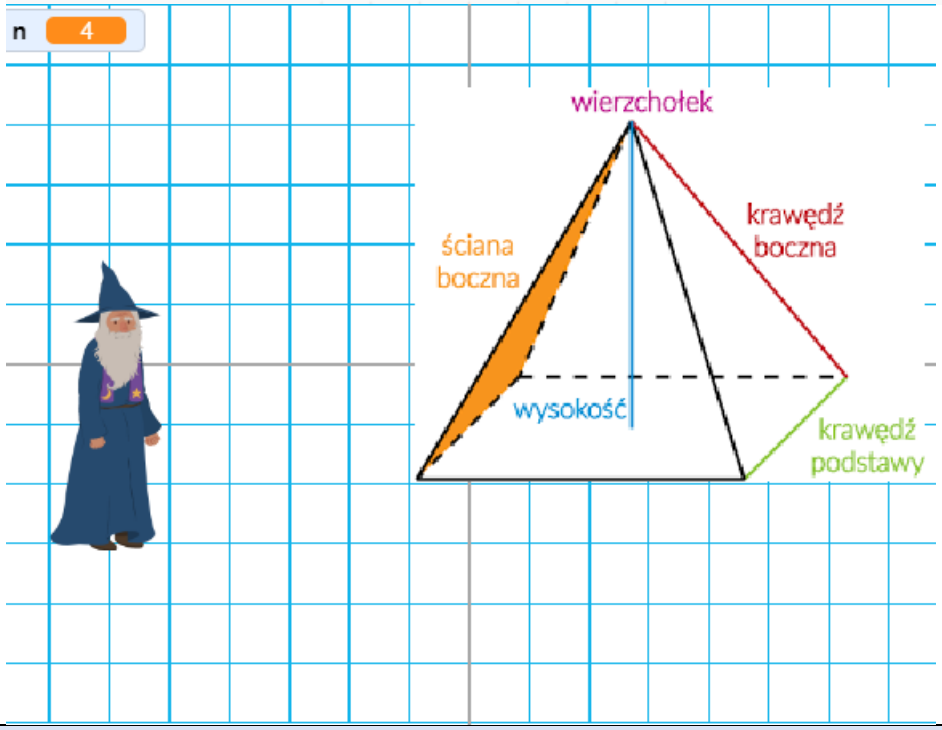
Sample script and the appearance of the scene





Scripts for n = 3, n = 4, n = 5, etc., where sprites are solids





Resources
Pyramid models, drawings, photos - available on the internet.
Students' Evaluation
Commitment to work, activity, accuracy of work performed.
Bibliography
Available mathematics school textbooks, workbooks, task sets. Just those with whom the class works
Scalability

Depending on the educational level, you can change the polygon in the base of the solid (increase the number of its sides).

More information

You can extend the scratch program by determining the surface area of the solid or counting the volume.