SCENARIO		
Title	Describing prisms	
Summary	The student distinguishes between prisms among solids, He names them, indicates height, side walls, edges Can draw polyhedrons and indicated elements	
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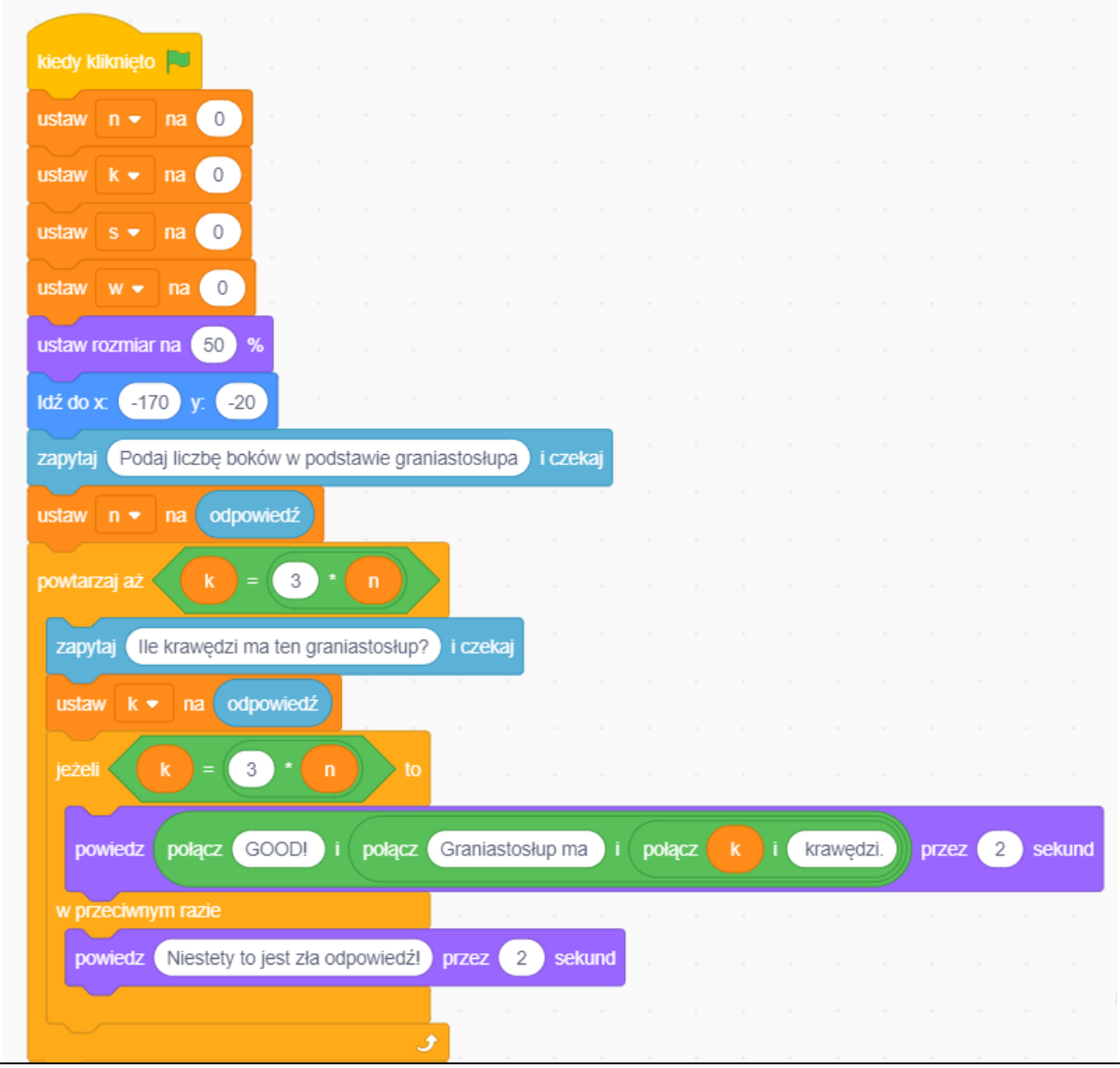
Didactic objectives
Pupil • distinguishes between simple prisms and names them; • describes the prisms; • shows the height of the straight and inclined prism on the model; • draws straight prisms and their grids; • classifies prisms; • based on examples of solids, determines the formulas for the number of walls, edges and vertices of a prism
Physics☐ Mathematics☒ Information☐ Technology☐ Robotics☐ Programming☐
Education Level: 10-12years☐ 12-14years☒
Problem Statement
What distinguishes a prism from other solids? How many faces, edges, vertices?
BOM (Bill Of Materials needed)
Computer workstations, projector, scratch software
Activity description
1. Organizational activities 2. We describe straight prisms, with cuboid and cube distinction. 3. We introduce the concept of the correct prism. We can display on the screen instructions for drawing straight prisms. Students draw on their own, based on the instructions. 4. We indicate the height of the prism in the illustrations or models. 5. We mention that there are also inclined prisms (we show photos or models), whose side walls are parallelograms. 6. We count walls, vertices, edges and look for the relationship between the polygon in the base and their number. 7. Working with the scratch program - we choose the model, give the number of sides in the base,

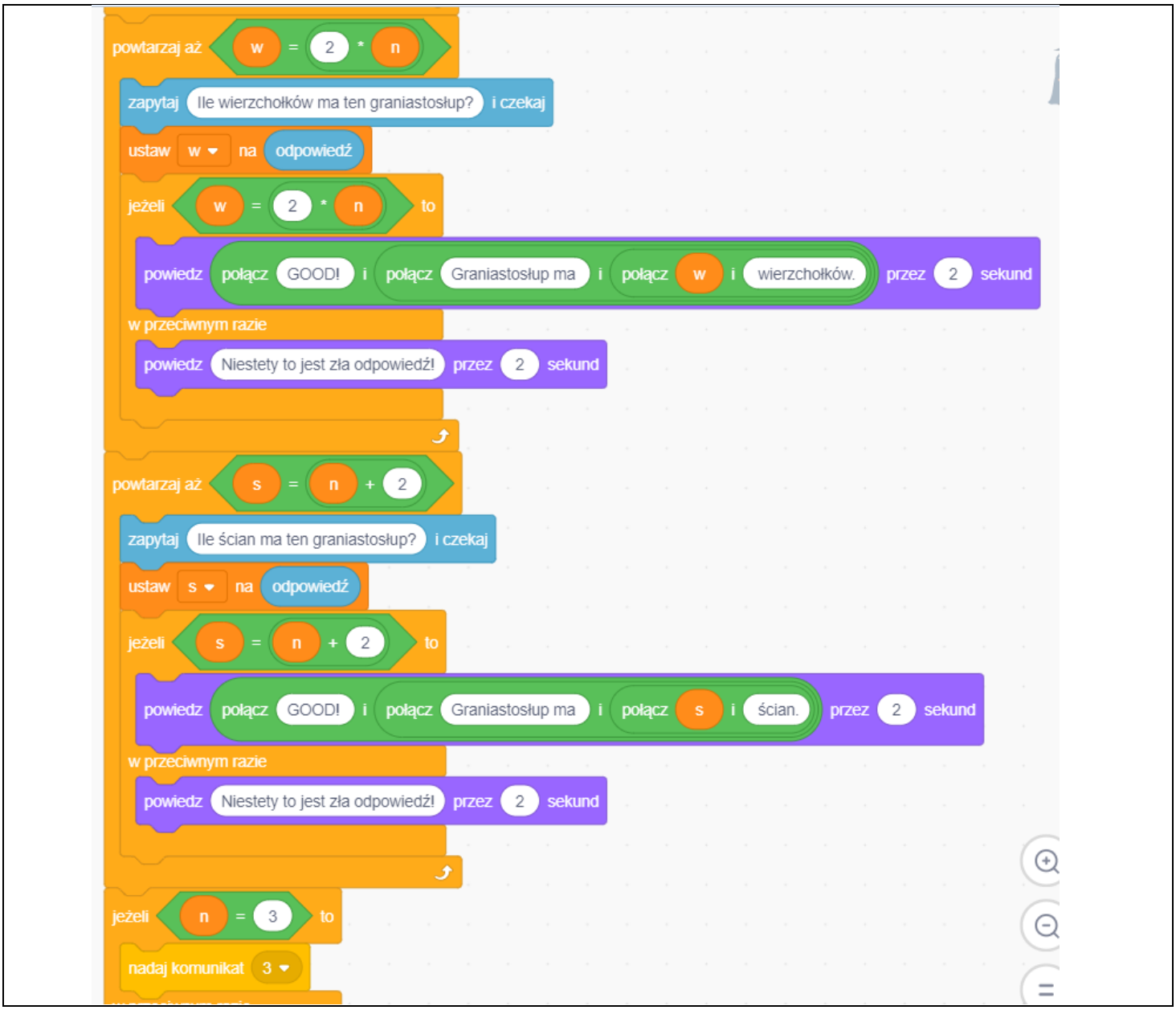
check whether we can correctly enter the number of walls, edges and vertices.

8. Summary.

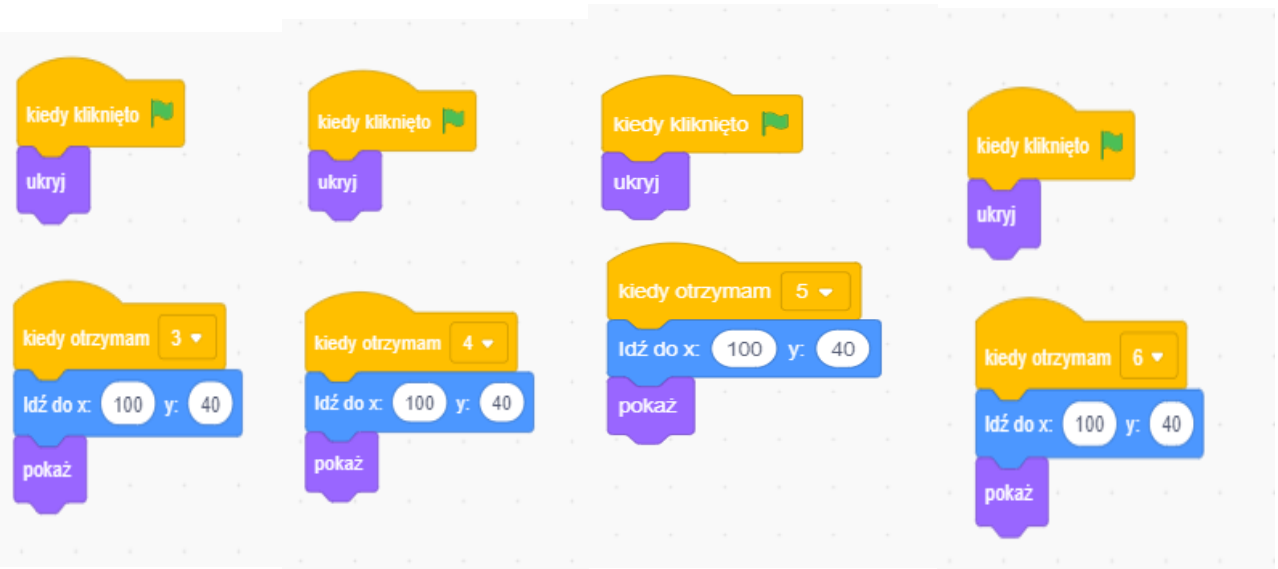
Sample script and the appearance of the scene

Script




powtarzaj aż w = 2 * n
zapytaj Ile wierzchołków ma ten graniastosłup? i czekaj
ustaw w na odpowiedź
jeżeli w = 2 * n to
powiedz połącz GOOD! i połącz Graniastosłup ma i połącz w i wierzchołków. przez 2 sekund
w przeciwnym razie
powiedz Niestety to jest zła odpowiedź! przez 2 sekund
powtarzaj aż s = n + 2
zapytaj Ile ścian ma ten graniastosłup? i czekaj
ustaw s na odpowiedź
jeżeli s = n + 2 to
powiedz połącz GOOD! i połącz Graniastosłup ma i połącz s i ścian. przez 2 sekund
w przeciwnym razie
powiedz Niestety to jest zła odpowiedź! przez 2 sekund
jeżeli n = 3 to
nadaj komunikat 3

Scripts for n = 3, n = 4, n = 5, etc. As sprites we insert prisms with triangular, quadrilateral, pentagonal bases, etc….



Resources

Models of solids - prisms, charts with appropriate prisms, sheets of paper, pencil.

Students' Evaluation

The correctness of drawing, commitment, activity during the lesson.
Bibliography
Mathematics textbooks, workbooks, task sets are available. Only 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.