SCENARIO		
Title	**Light reflection and dispersion**	
Summery	During the course, students will be introduced with information on the phenomenon of light reflection and scattering. They will know the rule of reflection.	
Author/s	Jarosław Szczęsny	Date: 15/12/2019

Didacticobjectives
General goals: - introducing the concepts of reflection and dispersion of light. - indication of reflection and dispersion of light in everyday life. **Specific lesson goals:** - formulating the rule of reflection, - describing the course and a result of the experiment using the concepts of angle of incidence and reflection angle, explaining the role of used tools and making a diagram of the experimental system, -describing the phenomena of reflection and dispersion of light, giveing examples of their occurrence and use.
Physics ☒ Mathematics☐ Information Technology☐ Robotics☐ Programming☐
Education Level: 10-12 years☐ 12-14 years ☒
Problem Statement
What effect does the reflection surface have? What is the relationship between the angle of incidence and reflection?
BOM (Bill Of Materials needed)
- laser pointer, - mirror, - Screen, - protractor,

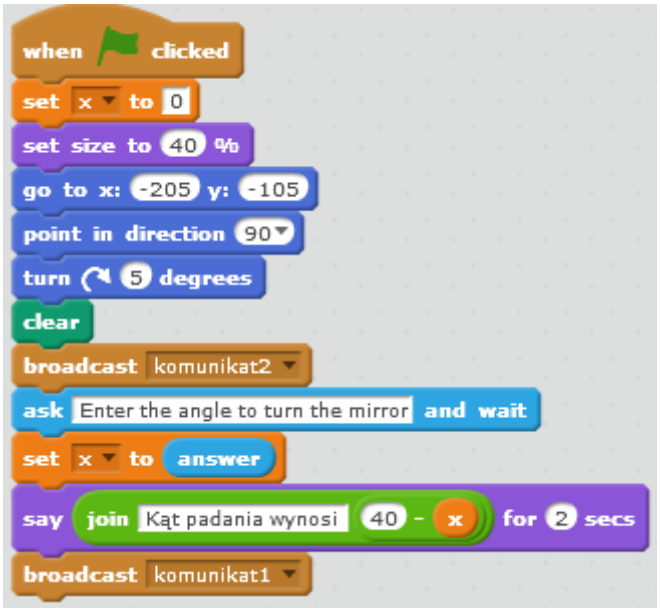
- computer

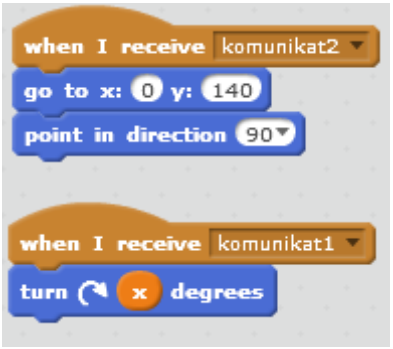
- SCRATCH environment installed or internet access

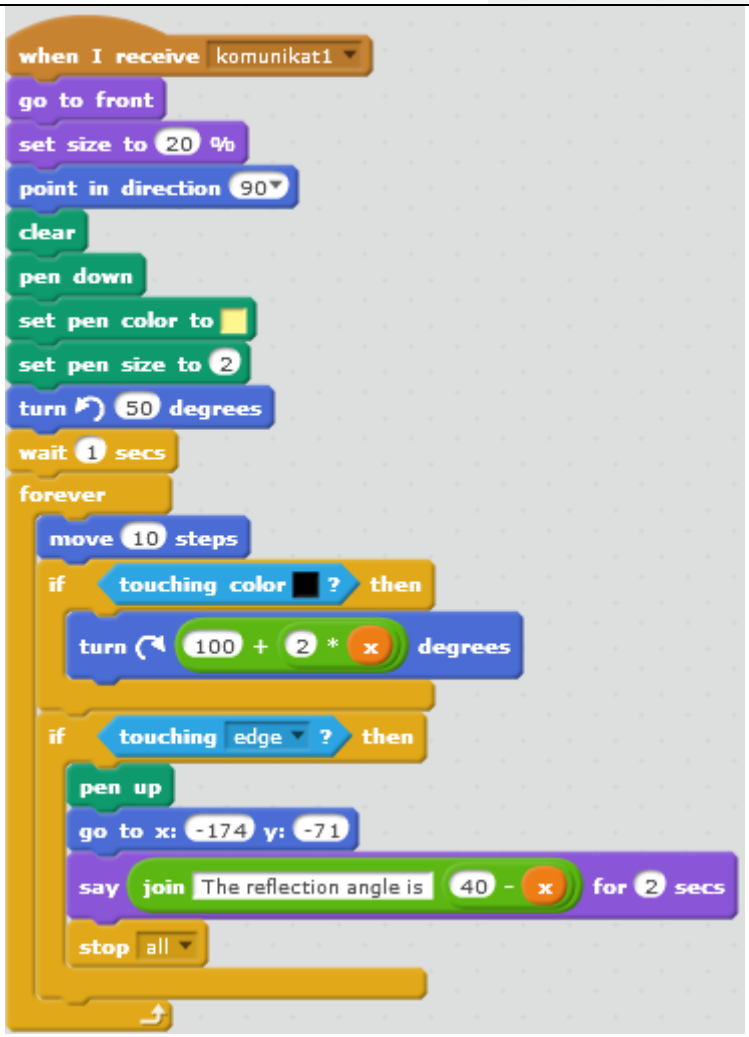
Activity description

Lesson course:

1. Organizational activities
2. Introduction to the topic - a reminder of the light news.
    - The lecture about when and where to observe the reflection of light.
3. Discussion: What does it mean that we see through the Ligot
4. A demonstration of experience checking how light is reflected.
    - Students will formulate a conclusion about the experience.
    - Slideshow "Reflection and dispersion of light"
5. Introduction of concepts describing the phenomenon of light reflection
    - Introduction of reflection rule.
6. Performing an experiment showing the difference between reflection and light scattering.
    - Introduction of the concept of light scattering.
    - Explain the difference between reflection and light scattering.
7. Brainstorming - students give examples of reflection and dispersion of light from everyday life
8. Simulation in the SCRATCH environment of the reflection phenomenon from the mirror







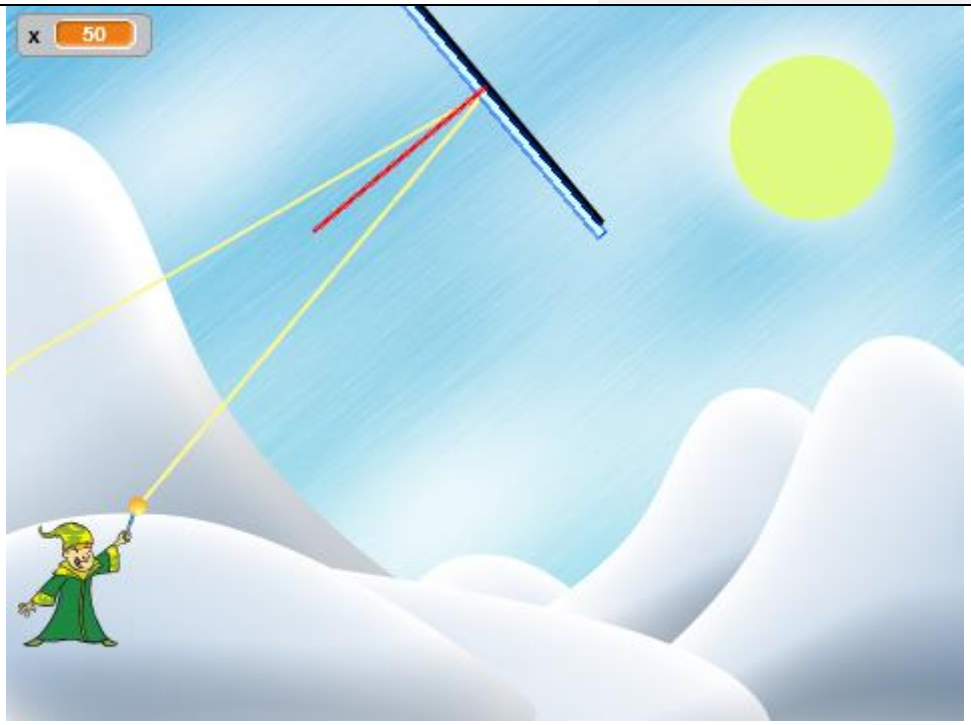
9. Solving tasks.

10. Summary of the lesson.

Resources

- computer stadion

- SCRATCH environment installed or Internet Access



Students' Evaluation
The student will be maeked for his commitment and the proper performance of the experiments.
Bibliography
Spotkania z fizyką - Podręcznik do fizyki dla klasy ósmej szkoły podstawowej Authors: Grażyna Francuz-Ornat, Teresa Kulawik, Maria Nowotny-Różańska https://scratch.mit.edu
Scalability
Script modification and improvement.
Moreinformation
Solving tasks using the program.