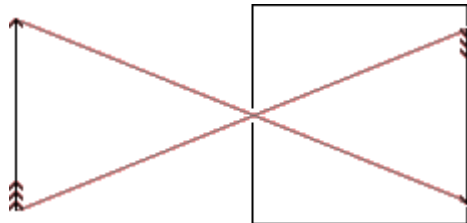


WORKSHEETS FOR PUPILS

Activity name	Expected duration	Difficulty of the activity	Age of children for which the activity is suitable	Tools and material used	Objective of the activity
Practical Exercise 1:	1 lesson	medium	14 – 15 years	drawing supplies	Deepening the knowledge of geometrical optics.
Practical Exercise 2:	1 lesson	higher	12 – 14 years	small and large magnifying glass, ruler, tube for drawings, saw, scissors, glue gun, calculator	Deepening the knowledge of geometrical optics and the principle of telescope construction.
Practical Exercise 3:	1 lesson	higher	12 – 14 years	small and large magnifying glass, ruler, tube for drawings, quarter sheet of paper, saw, scissors, glue gun, calculator	Deepening the knowledge of geometrical optics and the principle of telescope construction.
Practical Exercise 4:	1 lesson	medium	12 – 14 years	scissors, ruler, calculator	Understanding the principle of mirror construction from segments.
Practical Exercise 5:	1 lesson	medium	12 – 14 years	two quarter sheets of paper, aluminium foil, pin, drawing supplies, scissors, adhesive tape	The principle of a pinhole camera.

Practical Exercise 5: PINHOLE CAMERA

A pinhole camera is a very simple optical device in which rays from the observed object pass through a small hole and create an image on the opposite shade (see Figure). Therefore, the image obtained by a pinhole camera is inverted.



1. Cut a 3×3 centimetre square hole in the centre of a hard paper sheet with A4 format.
2. Glue a square of 5×5 centimetre aluminium foil to the hole with adhesive tape so that no light passes around the foil.
3. Carefully pierce a small hole into the centre of the square of aluminium foil.
4. Try to use the created hole to display the Sun on a white paper sheet (see Figure).

