

## WORKSHEETS FOR PUPILS

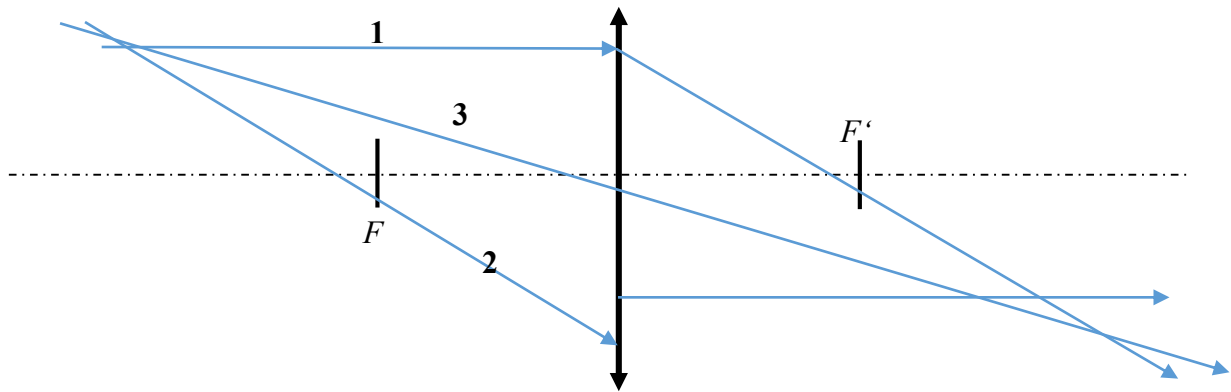
Activity name	Expected duration	Difficulty of the activity	Age of children for which the activity is suitable	Tools and material used	Objective of the activity
<b>Practical Exercise 1:</b>	1 lesson	medium	14 – 15 years	drawing supplies	Deepening the knowledge of geometrical optics.
<b>Practical Exercise 2:</b>	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.
<b>Practical Exercise 3:</b>	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.
<b>Practical Exercise 4:</b>	1 lesson	medium	12 – 14 years	scissors, ruler, calculator	Understanding the principle of mirror construction from segments.
<b>Practical Exercise 5:</b>	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 1: CONSTRUCTION OF RAY COURSE

**Ray no. 1** passes parallel to the optical axis and, after passing through the lens refracts into the image point of the lens ( $F'$ ).

**Ray no. 2** passes through the focal point ( $F$ ) and, after passing through the lens refracts parallel to the optical axis.

**Ray no. 3** passes through the centre of the lens and does not refract after passing.



**Construct an image created by a telescope and describe its properties:**

