WORKSHEETS FOR PUPILS

Name of activity	Estimated time needed	Difficulty of activity	Age of children for whom the activity is suitable	Tools and used materials	Objective of activity
Comet	20 – 30 minutes	medium	14 – 15	encyclopaedia, atlas or internet, calculator, spreadsheet	concept of comet, tail, movement around the sun
Minor Planet Velocity	30 – 40 minutes	very hard	14 – 15	encyclopaedia, atlas or internet, calculator, spreadsheet	3. Kepler's law, unit conversions
Energy	20 – 30 minutes	medium	14 – 15	paper, computer, calculator	law of conservation of mechanical energy, kinetic and positional energy
Impact Craters	20 – 30 minutes	medium	14 – 15	metre ruler, calculator, spreadsheet, graph paper	work with map, kinetic energy, volume, weight, density
Gravitational Force	20 – 30 minutes	medium	14 – 15	calculator, spreadsheet, graph paper	gravitational force, sphere volume, unit conversions

Worksheet 1: COMET

Practical Exercise: Draw a comet and describe its main parts.

Practical Exercise: Does a comet always have a tail? Justify your answer.

Practical Exercise: Is the comet's tail pointing to the Sun? Justify your answer.

Practical Exercise: Sketch the comet's orbit around the Sun and draw the direction of its tail.

Practical Exercise: What are the main differences between comets and minor planets?