


TITLE	SUNDIAL Sun clocks, the apparent motion of the sun and its shadow
subjects	science, technology, engineering, art, math
Class	class V Primary school
Hours	20
Materials	modelling plasticine, glue, pencils, colored pencils, acrylic paints, brushes, audio visual material, tablets, compass, recovery materials, plasters, wooden planks,
Objectives	<ul style="list-style-type: none"> ● Ask yourself and ask questions about phenomena and things; formulating hypotheses, designing experiments and / or explorations, verifying conclusions ● Acquire a survey method based on observation of facts, recording of phenomena and critical comparison of data ● Identify scientific, mathematical and artistic - expressive concepts and phenomena in the observation of concrete experiences ● Use technology to investigate, simulate and build models
Activities 	<ol style="list-style-type: none"> 1. Study of one's own shadow and the shadow of objects. How to change with the passing of hours: observations and hypotheses 2. The apparent movement of the sun and the real movements of the earth: simulation in the classroom of the motions of Revolution and Rotation 3. Search for time measurement methods that exploit the shadow of the sun: from the sundial to the sundials. 4. Construction of a portable sundial: how it is made and how it works. The geographical coordinates and the cardinal points, the circumference and the circle 5. Orientation and measurement of time through observation of the



position of the sun and its shadow through the sundial and the compass.

6. Development of a power point for reconstruction and exposure of the activity

Assessment

Children know how to orient themselves by observing the shadow of the sun; they know how to build and use a sundial; read a compass; they know how to use the web network to look for information; they know how to use the power point to reconstruct and summarize an experience.