

TITLE



The Homothetic Globe

SUBJECTS

Science, Engineering, Maths

CLASS



SECOND CLASS OF THE SECONDARY SCHOOL

2G

DURATION

Different time during the year

MATERIALS

- A Globe without support
- small piece of plasticine to anchor a small gnomon
- small gnomon
- protractor

OBJECTIVES



With this activity, the kids can observe the real lighting circle and sunlight movements during the day at the living's latitude

TOPICS



This is a preferably outdoor activity but it's possible to do it inside simulating the sunlight with a powerfull lamp.

Remove the support of the Globe and rest on a big roll of scotch. Now, point the earth's axis towards the North and tilt the Globe according to the parallel (Rome is on the 42° parallel). Paste, right to the city on the Globe where you want to proceed with the observation, a small gnomone with a piece of plasticine (you can use toothpicks). Now, you can observe the movement of the sunlight throw the moving of the gnomone shadow in the place where you live.

In the same way it's possible, changing the parallel, to observe in the same way, what would happen if we were at the poles or at the equator.

ASSESSMENT	The assessment is focused on the ability of students to: construct a model step by step thinking about what it demonstrates, pay attention to measurements, managing, constructions of model itself and calculations of the different variables.