SECTION 8

INDEX

Rocks, fossils and minerals	page	142
Geological models	page	143
Kit	page	144
The Earth and the solar system	page	145



ROCKS, FOSSILS AND MINERALS



Page 142 - Section 8 - Astronomy and Earth Science

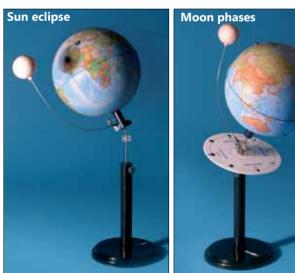
GEOLOGICAL MODELS



7046

7148





5655 THE SUN, THE EARTH AND THE MOON

25 experments

CONTENTS

- The solar system 1.
- 2. Solar light's decmposition
- 3. Earth's shape, the horizon
- 4. Meridians and parallels The Earth's magnetisms
- 5.
- 6. The orientation
- The Earth's motions 7.
- 8 The Sun's apparent motion
- The day and the night 9
- 10. The height of Sun at the horizon during the daytime
- 11. The measure of time

SUPPLIED EQUIPMENT

- Map of the Solar system Complete app. for the study of the Sun Stand for the Earth-Moon system

- Stand for the Earth-Moon s Vision tube Horizon disk Linear steel pivot Sun rays model with stand Sphere with linear magnet Compass Metal rod ø 10 mm Arrow with clip

- 12. The time zones 13. The sundial
- 14. If the Earth's axis wasn't inclined 15. Consequences of the inclination of the Earth's axis
- 16. Solar irradiation on the terrestrial surface
- 17. The seasons
 - 18. Earth's satellite the Moon
 - 19. The moon phases
 - 20. The eclipses



7227 THE SUN, THE EARTH AND THE MOON

With the equipment of this kit, students can understand some astronomical phenomena such as:

- Sun rising
- Sun setting;
- The seasons;
- The day and the night;
- The moon phases.
- Supplied with english didactic guide

Page 144 - Section 8 - Astronomy and Earth Science

- Series of 4 cards Time disk Optic projector Steel pivot with an inclinaton of 23O Protractor with needle Sundial model Arm with clip and Moon Moon phases disk with duoble-inclination pivot Clamp \emptyset 13 mm Purch pion
 - 1 2 1 Push pin Stylus with needle

THE EARTH AND THE SOLAR SYSTEM

HS200 Solar system model

Every planet can rotate individually around the Sun; therefore it is possible to place each of them in the real position they reach on a certain date. Experiment guide included. Sun diameter: 13 cm.

NR1 Electric orbiter

The item has two switches: the first one turns on the lamp; the second one turns on the engine responsible for the following motion:

- Earth revolving on its axis;
- Moon rotating around the Earth;
- Moon shifting position in respect to the elliptics plane;
- Earth-Moon system rotating around the Sun;
- Experiment guide included.

HS151 Hand orbiter

The item can simulate phenomena of the day and the night,of the seasons, of the moon phases and of the eclipses. Electric lighting of the Sun. Experiment guide included. Total length: 55 cm.

2074 Apparatus for the study of the solar radiation

This instrument can:

- measure the height of the Sun at the horizon;
- decompose the sunlight;
- verify that the solar irradiation changes according to the latitude and to the season. Experiment guide included.

HS300 Celestial star globe

This item is a transparent sphere Ø 30 cm with the most important constellations on it. Globe, Sun, celestial meridian and celestial equator are all included. Experiment guide included.

HS310 Celestial globe

It is a cheaper version of the celestial globe code HS300. It has the same diameter of the previous item, but no celestial meridian and equator on it.

HS3010 Dimensions of the Earth Kit

With this kit it is possible to measure the Earth's sizes and to solve simple problems of astronomical geography. The kit is composed of:

- a globe Ø 20 cm.
- a sphere made of transparent material Ø 21 cm.
- an inner section of the Earth.
- a flexible kilometric scale
- a protractor.
- support material.
- experiment guide.

HS3010













Astronomy and Earth Science - Section 8 - Page 145

THE EARTH AND THE SOLAR SYSTEM



4336



4336: THE SUN SETTING



NR13 | Inflatable globe

Diameter: 40 cm.

Magnetic globe

The item is a globe with a diameter of 13 cm and a bar-magnet inside it, so to simulate the magnetic field of the Earth. The compass, included in the equipment, allows you to perform experiment on the basic concepts of orienteering.

The geographical globe "Elite 2001"

Globe showing physical cartography when its inner lamp is switched off, and physical-political cartography when the lamp is on. Diameter: 30 cm.

Light diffusion Kit

If a solution containing a sulphur salt becomes acid, within 10 minutes sulphur crystals will start to grow progressively. When their dimension becomes comparable with the light wavelength, the light diffusion takes place. According to Rayleigh's explanation, the blue component is deviated in a much more effective way than the red one, which goes on undisturbed. So it is possible to simulate the phenomenon which cause the sky to be blue and the reddish color of the Sun and of the Moon when they are on the horizon line. With the help of a polarizing filter it is also possible to study the polarization of diffuse light. Optical projector code 4007 is sold separately.

- Half-transparent screen - Polarizing filter

- Tripod bases for the projector and translucid screen

SUPPLIED EQUIPMENT:

- Basin

- Dropper - Glass stirrer

7218

SUPPLIED ITEMS NOT INCLUDED:

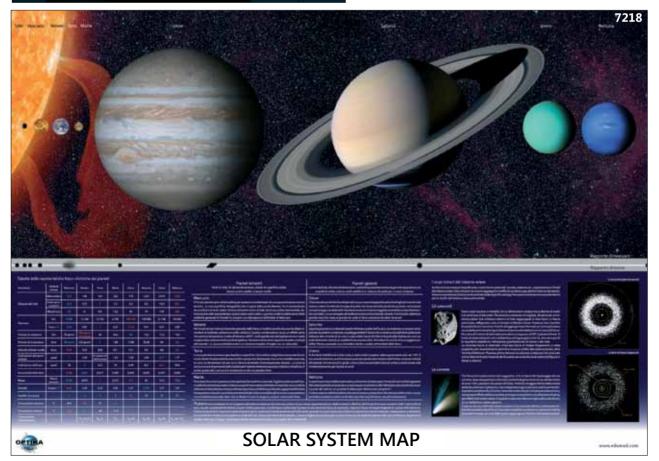
Whole milk - Dioptric projector - Transformer to supply power to the projector

Solar system map

Solar system plastic poster; it is updated to the most recent astronomical discovers. There are pictures of the planets, taken from the space probes, whose dimensions are proportional to each other. A line with one mark for every planet's position is drawn apart to illustrate the distances' scale.

The chart contains the most important physical/chemical data: distance, dimensions, mass, rotation period, revolution period, maximum and minimum temperatures, atmosphere's components and many other data. The principal features of the planets are reported, enriched by historical notes.

The less important elements of the solar system aren't forgotten as well: asteroids and comets have a full description, with scale map of both asteroid belts. Dimensions 70x100 cm, support rods included.



Page 146 - Section 8 - Astronomy and Earth Science