

SCIENCE
TEACHING
MATERIALS
はるふ
Compliant with the new course of study of the Ministry
of Education, Culture, Sports, Science and Technology

Sunlight [Type C] Sundial Making

Easy to open the lid!
New directional
compass



You can store the sundial stick!
STORAGE SPACE

CONTENTS

Observation board (comes with compass)	Light shielding plate	Sundial stick
		Stickers indicating time

INSTRUCTIONS INCLUDED!
There is an explanation of observation on the backside.



9:00 AM
Include stickers
indicating a time

CAUTION Do not cover your head with the plastic bag that contains the materials.

Equipped with a light-shielding
plate for observing the sun!



The sun is seen
through a
light-shielding plate

CAUTION
Don't look at the sun for
a long time! It may
damage your eyes.

Easy to assemble the material set
Ready for
immediate observation

CAUTION

- Please read the instructions carefully before carrying out any observations.
- Be sure to put small parts in the bag to avoid losing them.
- Be sure to use the light-shielding plate when looking at the sun.

INTERNAL PARTS

COMPASS

OBSERVATION BOARD

LIGHT SHIELDING PLATE

STICKERS INDICATING TIME

SUNDIAL

TO TEACHERS

If the compass needle is not correct, remove the needle. Rub the red side of the needle with the N-shaped side of the magnetic strip in the direction of the arrowhead two or three times, as shown in the diagram.

Cover

Remove the claws by pressing the tab and lifting it.

N pole of the magnet

Needle

When the sun shines on something, where does the shadow form?

Observation

1

Sunlight & Shadow

- Using a light shading plate, study the direction of the shadow and the direction of the sun.

CAUTION

- Don't look at the sun for too long! It may damage your eyes.

Observation

2

Sun & Shadow of the stick

- Set up a sundial stick on the observation plate in the sun, and measure the shadow of the sundial stick and the sun's direction.

How to set up a sundial

The back of the observation deck

sundial stick

*After observation, insert it back into the original place.

- The sundial stick goes into the back of the observation board.

SUN

sundial stick

observation deck

What is the relationship between the movement of shadows and the sun?

Observation

3

The movement of the shadow and the direction of the sun

- Use a magnetic compass to determine the direction and adjust the direction of the observation board.
- Find the direction and length of the shadow every hour and put a sticker on the time of day when you observe it.
- Draw a line between the hour markers and the sundial stick.

SUN

Magnetic Compass

South

West

East

North

Time sticker

*To prevent the observation board from blowing away in the wind, place rocks or other objects on the board.

How to use the compass

- It is best to use in flat areas where there is nothing made of iron around.
- The compass's needle stops pointing in the direction of north and south.
- When the needle stops moving, turn the compass to align the red side of the needle with the word "north."

turn

*When observing, do not remove the compass and slowly rotate the observation board.

Will the observation board act as a sundial?

Observation

4

Sundial

- Align the direction of the observation board and find out what time the shadow of the stick is pointing.

SUN

sundial

*The shade and length of the shadow will vary depending on the season and region you are observing from.