THE EARTH IS A BALL

BRIEF DESCRIPTION

In this activity, use an EU-UNAWE Earthball to facilitate the understanding of day and night.

KEYWORDS

- Earth
- Sun
- Rotation
- Day
- Night
- Sunrise
- Sunset

MATERIALS

- EU-UNAWE Earth ball
- Pictures of Earth from space
- Lamp
- Darkened room

LEARNING OBJECTIVES

This activity can be used to show children how the Earth moves (approximately) every 12 hours into shadow and then back into the
light, to demonstrate how night and day occur.

BACKGROUND INFORMATION

When we speak of day and night, we say things such as ‘getting up with the Sun’, ‘the Sun sinks slowly in the West’ and ‘the Sun rises in the East’ - our language indicates that it is the Sun that is doing the moving despite the fact that we know that it is the Earth that is moving around the Sun! Yet most children can recognize pictures of Earth from space, implying that they know that the world is round. Many also know, or have been told, that it is perpetually spinning.

Using these preconceived concepts as a base, this activity will simulate day and night to demonstrate why the Sun appears to move across the sky during the day.

FULL ACTIVITY DESCRIPTION

Step 1

Show the ball. This will represent the Earth, your home - everyone’s home. (Image 1).

Step 2

Show images of the Earth from space. Include pictures taken with part of the Earth in shadow. This demonstrated that the Earth is indeed round. (Images 2-5)
Step 3
Invite the children to play ‘The Earth goes Spinning’. Darken the room and turn on the lamp.

Step 4
Choose a volunteer whose name begins with S or who is wearing sun-coloured clothes (orange, yellow or with bright swirls). The ‘Sun’ will hold the lamp. Then choose a volunteer whose name begins with E or who is wearing blue and green. This child will play the role of Earth.

Step 5
Both volunteers take their place at the front of the group. 'Earth' will stand in the middle with the Sun on its left. Earth faces the audience, arms out-stretched and left hand pointing towards the Sun. This simulates sunrise.

Q. Ask at what time the children think the Sun begins to shine on the Earth.

Step 6
Ask Earth to turn 90 degrees to the left until they are facing the light. This simulates daytime.

Q. Ask the children at what time they think the sunlight is brightest on Earth.

Step 7
Earth must then turn a further 90 degrees to the left until their left hand points towards the light. This represents sunset.

Q. Ask the children at what time they think the sunlight leaves the Earth.

Step 8
Earth must then turn another 90 degrees to the left until they are facing away from the light. This simulates night.

Q. Ask the children at what time they think the Earth is darkest.

ADDITIONAL INFORMATION

Extensions
Night and Day music:

Talk about the different noises that children hear during the day and at night. If you have done the activity ‘As the World Turns’, refer to the scenes they drew on their paper plates and identify the sounds that would accompany their picture.

Create two groups on opposite sides of the room. One group shall represent daytime and the other night-time. Allocate and practice sound effects for both.

Come together and repeat ‘The Earth goes on a Spin’ activity. This time you will narrate and animate the process by inviting all children of the group to play a role.

Enact the changes as Earth goes on a spin, prompted by the teacher: ‘Here come the frogs and the owl. The stars start to twinkle, the birds fall sleep’.

Vice-Versa:

Do the ‘The Earth goes on a Spin’ activity again, but with two children standing back to back.

Before you start, find your country on the globe.

Find the country on the exact opposite of the Earth, e.g. if you are in Ireland, one child will play this country, the other child will be New Zealand.

Repeat steps 5-14, demonstrating that when one country is in the dark (night time) there is always another country in the light (daytime).

**SOURCE**

**Related activity:** This activity is a good follow-up to ‘As the World Turns’, an activity in which children identify the differences between night and day.