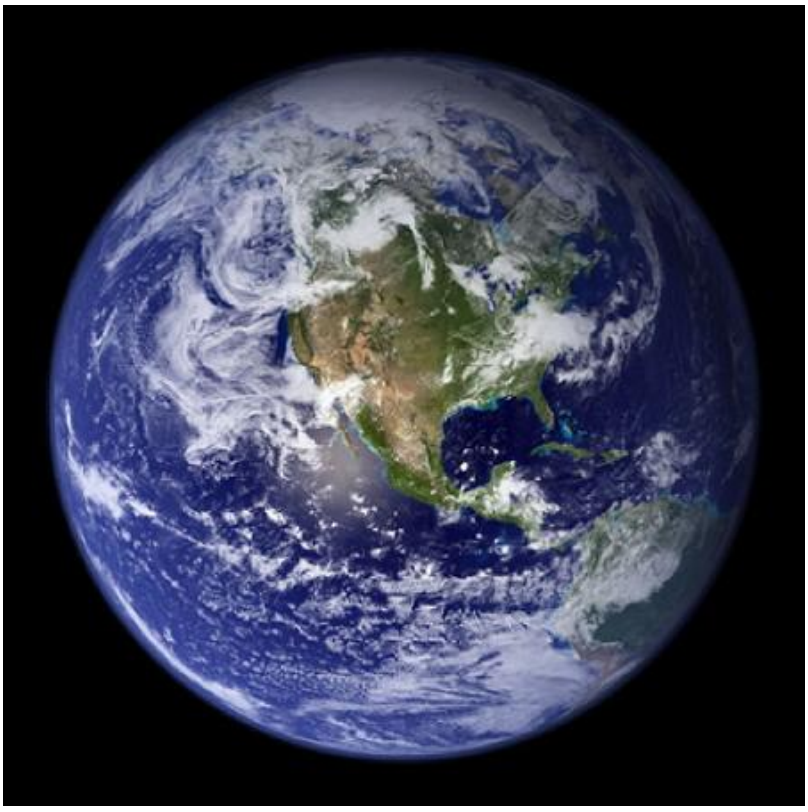
The Earth is a Ball



When we speak of day and night, we say "Getting up with the Sun", "The Sun sinks slowly in the West", "The Sun goes down like a big bald head".

Our language indicates that it is the Sun that is doing the moving, when - as we know – it is the Earth that is moving around the Sun!
Yet most children can recognize pictures of Earth from space. They know that the world is round and many also know or have been told that it is perpetually spinning.

In this activity, teachers and children take these details and put them together to demonstrate how night and day occur.

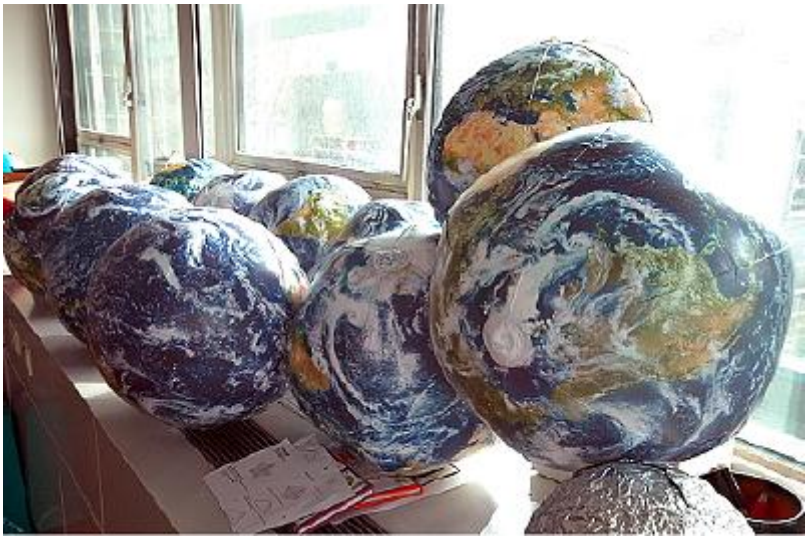
- GOAL: To simulate night and day. To show children how the Earth moves (approx) every 12 hours into shadow and then back into the light.

- MATERIALS: Earthball, pictures of Earth from space, darkened room, lamp, children. This activity is a good follow-up to "As the World Turns", where children identify the differences between night and day.

- AGE GROUP: Supervised, indoor, group activity for 4 years and up.

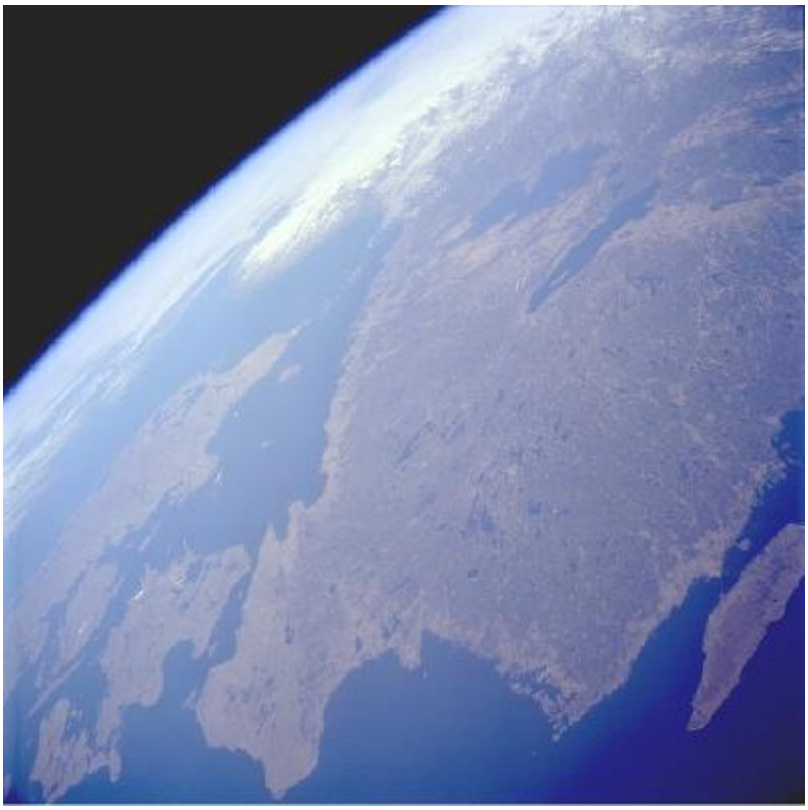
Download the activity sheet here
The Earth is a Ball PDF (3.56 Mb)

- **What to do**
  Step 1.
  Show the ball. What is this? This is the Earth. This is your home. This is the home of everybody.

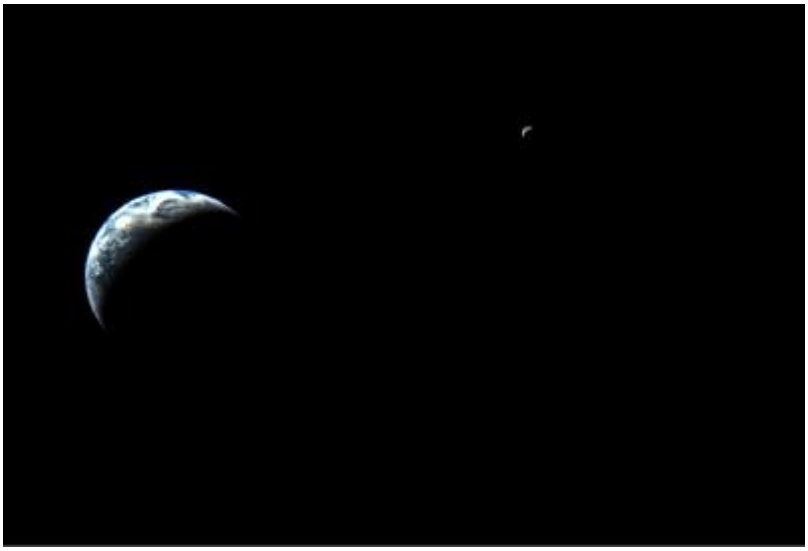


- **Step 2.**
  Elicit what you can do with a ball: kick it, throw it, catch it and spin it. The Earth is spinning.

- **Step 3.**
  Show images of the Earth from space.



- **Step 4.**
  Include pictures taken of the Earth in some shadow. This is proof that the Earth is indeed round.



- **Step 5.**
  Invite the children to play "The Earth goes on a Spin". Darken the room and turn on the lamp

- **Step 6.**
  Choose a volunteer whose name begins with S or who is wearing sun-like clothes: orange/ yellow, bright swirls, etc. The 'Sun' holds the lamp.

- **Step 7.**
  Choose a volunteer whose name begins with E or who is wearing blue and green. This is E-Girl/E-Boy

- **Step 8.**
  Both volunteers take their place before the other children. The E-Girl in the middle and the Sun to the left.

- **Step 9.**
  E-Girl faces the audience with her arms out-stretched and her left hand pointing towards the light. E-Girl sees Sunrise.

- **Step 10.**
  Ask the question: At what time do the children think the light starts to shine on the Earth?

- **Step 11.**
  E-Girl turns a quarter to the left until her face is fully in the light. She sees Daytime.

- **Step 12.**
  Ask the question: At what time do the children think the light is brightest on the Earth?

- **Step 13.**
  E-Girl turns a quarter to the left until she has her left hand pointing into the light. She sees Sunset.

- **Step 14.**
  Ask the question: At what time do the children think the light leaves the Earth?

- **Step 15.**
  E-Girl turns a quarter to the left until her face is totally away from the light. She sees the Night.

- **Step 16.**
  Ask the question: At what time do the children think the Earth is darkest?

Extension #1: Night and Day music

- **What to do**
  Step 1.
  Talk about the different noises that children hear in the day and 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.

- **Step 2.** Create 2 groups on opposite sides of the room. One group shall represent daytime and the other nighttime. Allocate and practice sound effects for both.

- **Step 3.** 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.

- **Step 4.** Enact the changes as E-Girl goes on a spin, prompted by the teacher: "Here come the frogs and the owl. The stars start to twinkle, the birds fall sleep."

Extension #2: Vice-Versa

- **What to do**
  Step 1. Do the whole activity again, but with two children standing back to back.

- **Step 2.** Before you start, find your country on the globe.

- **Step 3.** Find the country on the exact opposite of the Earth. If you are Ireland, the other child is New Zealand.

- **Step 4.** Repeat the Earth's rotation, demonstrating that when one child is in the dark (night time) some other child is always in the light (daytime) and vice-versa.

  Source: UNAWE international