

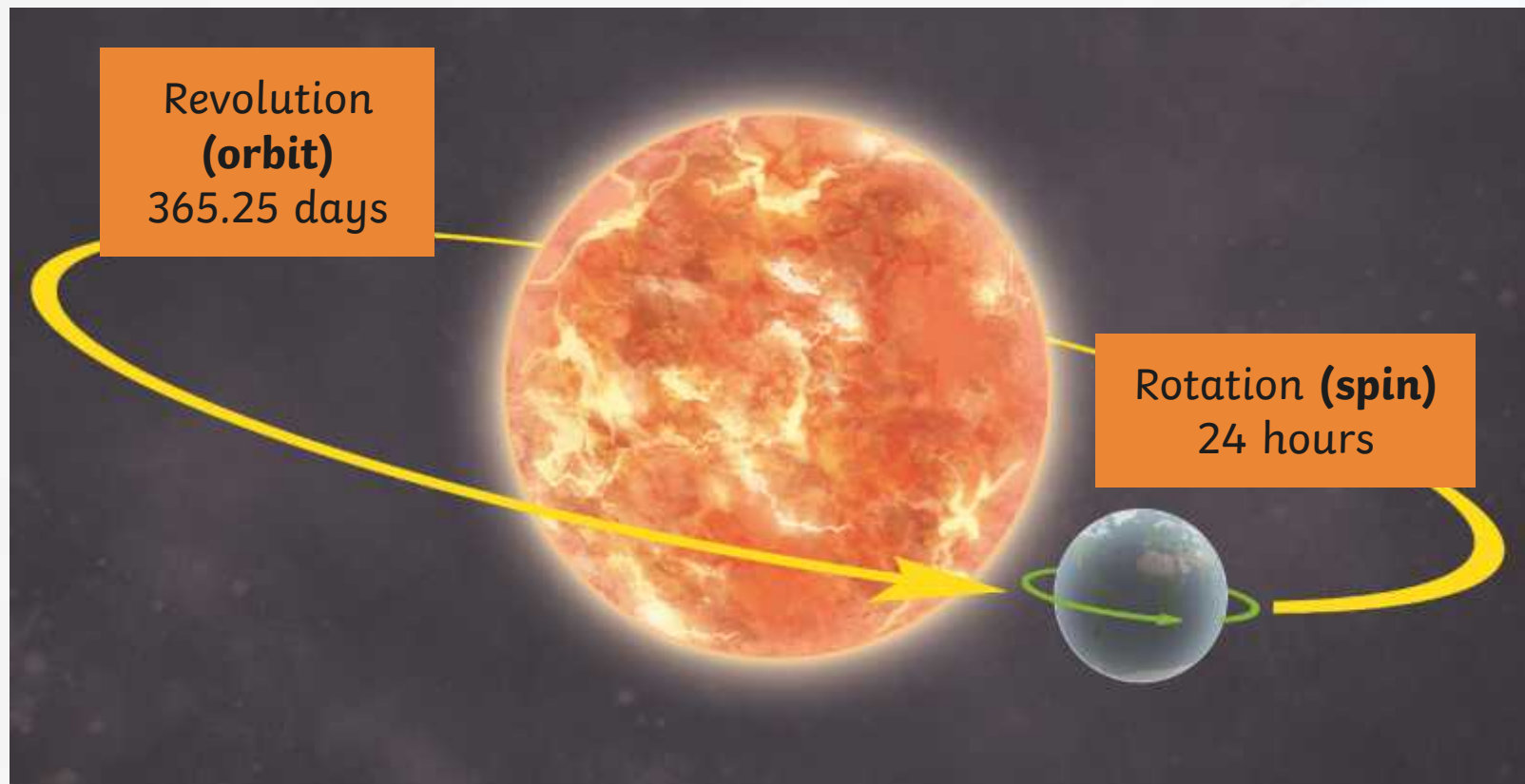
Earth's Movement in Space

Rotation vs Revolution



Earth's Movement

The Earth moves in two different ways in space.
The Earth **rotates** and **revolves**.

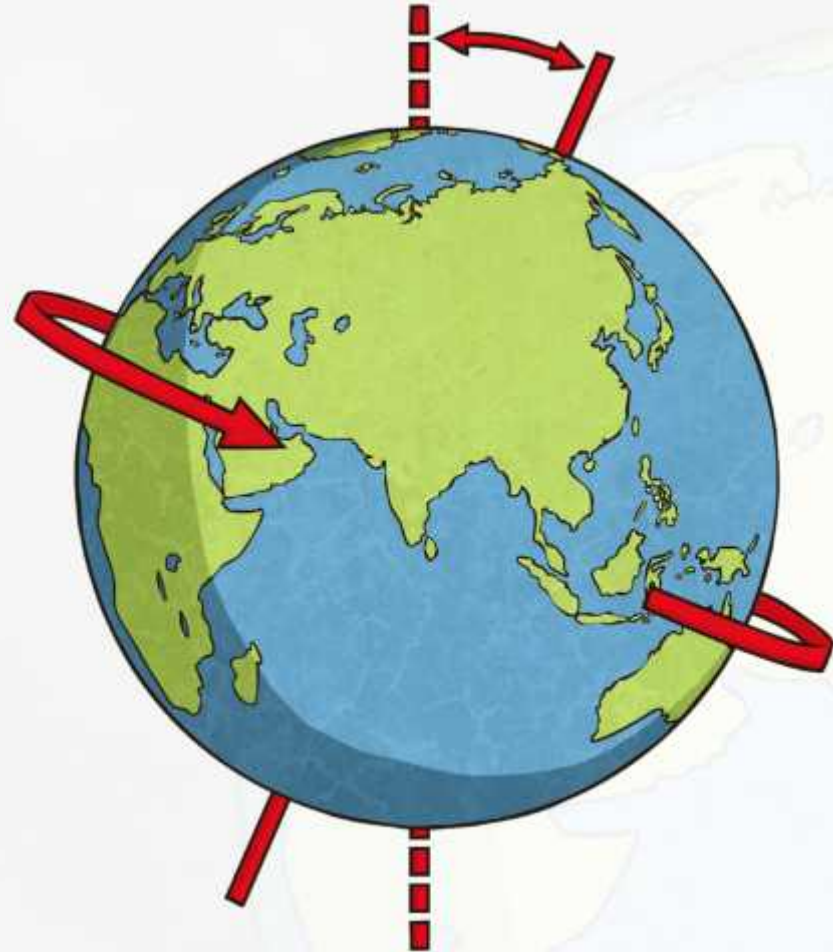


Earth's Rotation

There is an imaginary line through the center of the Earth called the **axis**.

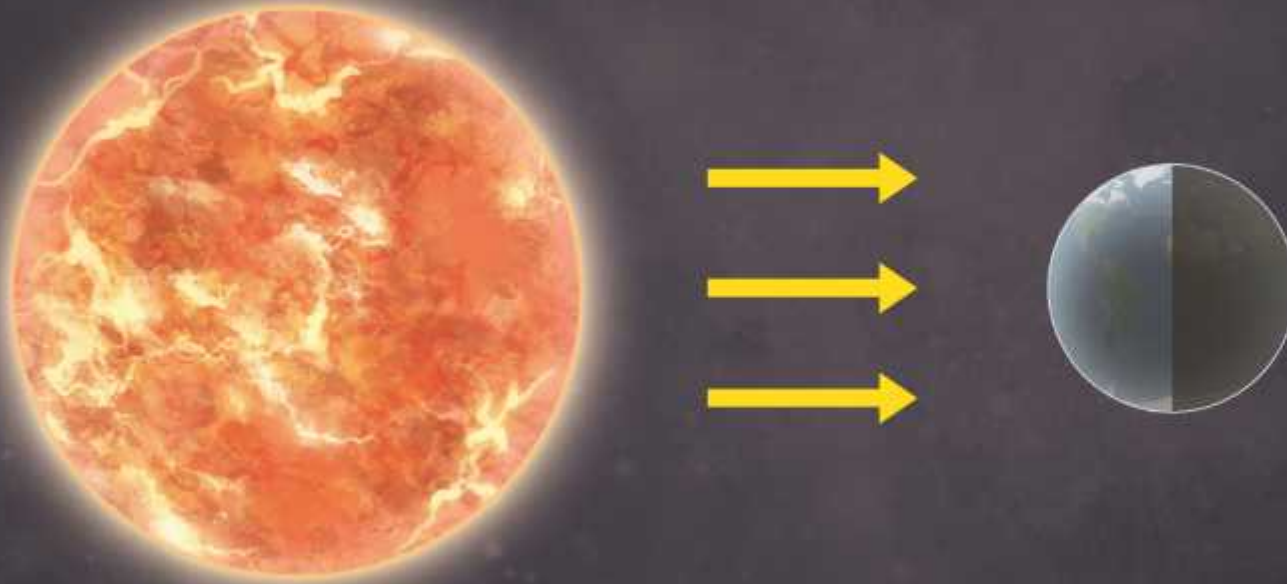
The axis extends from north to south.

The axis is at a tilt of 23.5 degrees.



Earth's Rotation

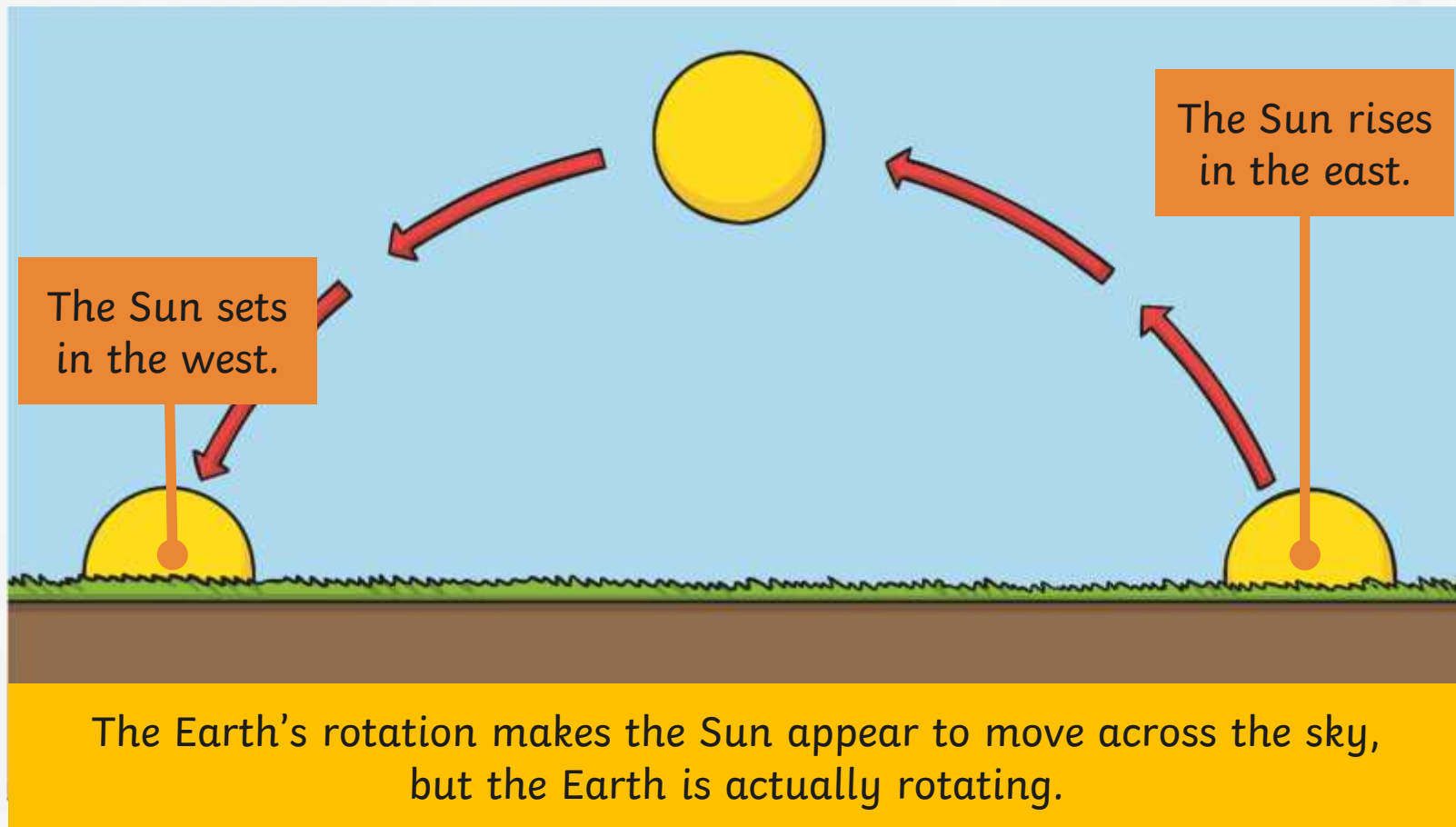
It takes the Earth 24 hours, or 1 day, to complete one rotation on its axis.



When the side of the Earth that is facing the Sun is experiencing **daytime**, the side of the Earth that is facing away from the Sun is experiencing **night-time**.

The Sun

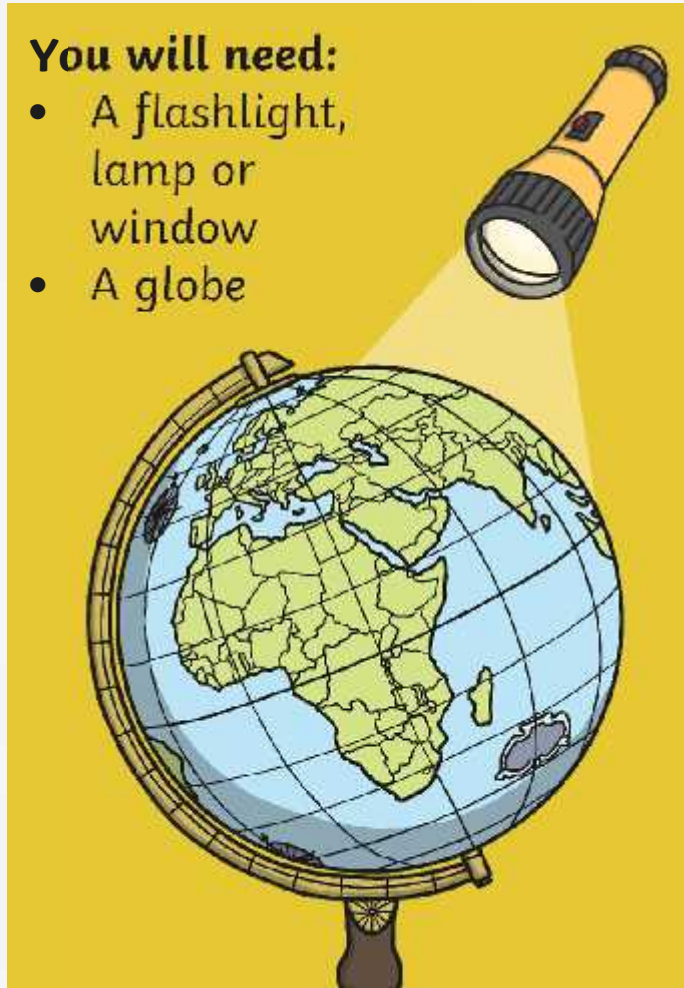
The Sun rotates on its axis.



Give It a Try

You will need:

- A flashlight, lamp or window
- A globe



1. Hold the globe next to the light source.

2. Find where you live on the globe.

3. Turn off the lights.

4. Point to where the axis is on the Earth (remember the Earth is tilted on its axis).

5. Rotate the Earth counterclockwise to model day and night.

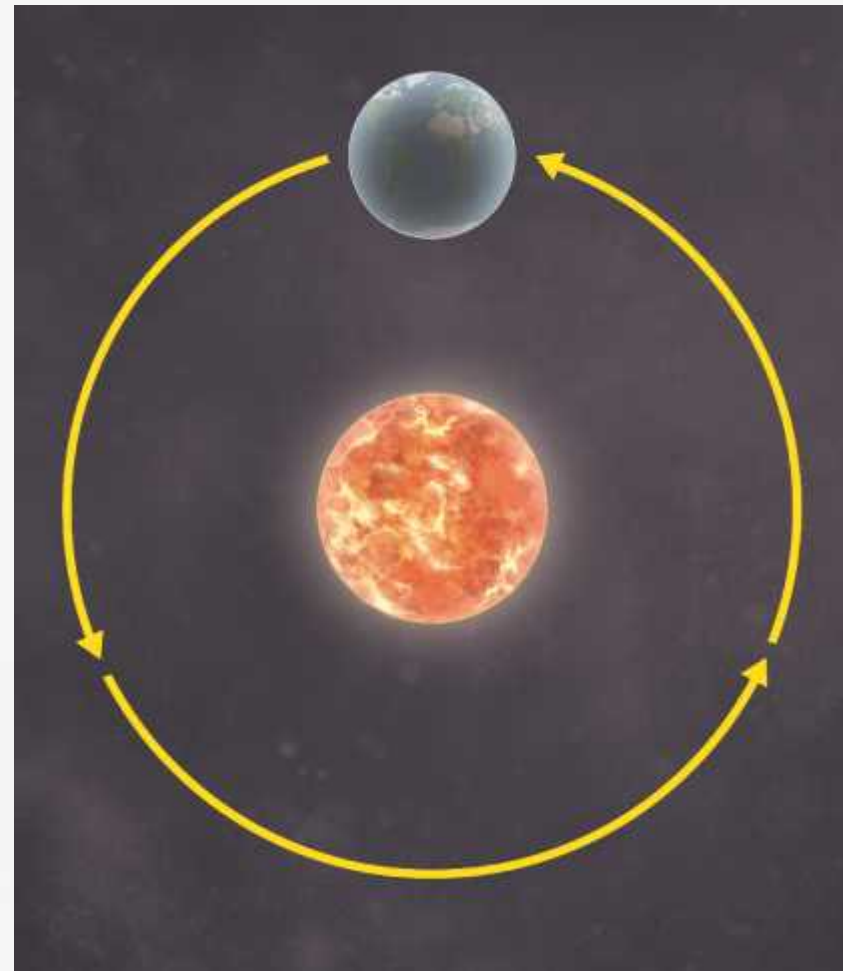
Earth's Revolution

The Earth revolves around the Sun.

This takes approximately 365 days, or 1 year.

The path the Earth takes around the sun is called Earth's 'orbit'.

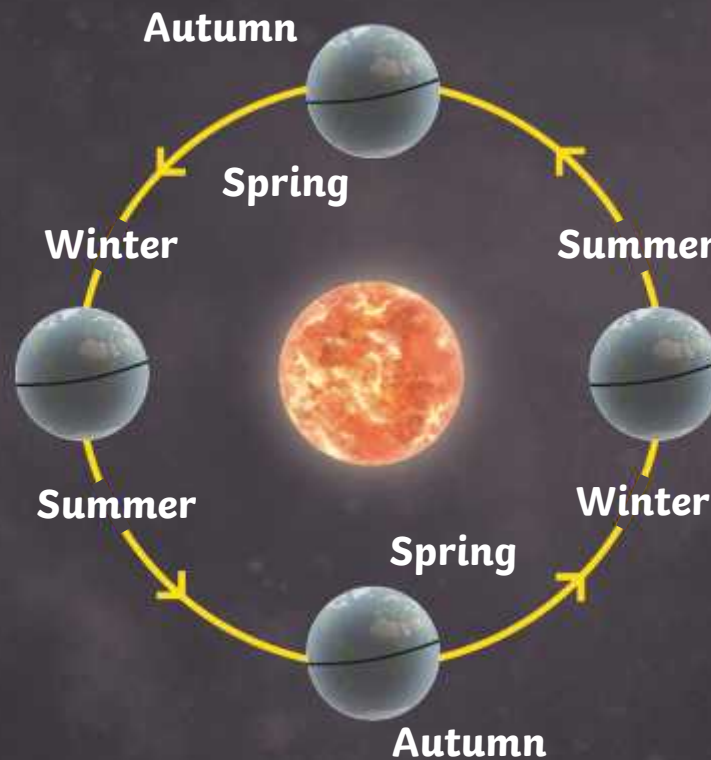
The Earth's orbit is in an elliptical shape.



Seasons in the Northern Hemisphere

The seasons are created through the combination of the Earth's **revolution** and the **tilt of the axis**.

When the northern hemisphere of the Earth is tilted away from the Sun, people in these regions are experiencing **winter**.

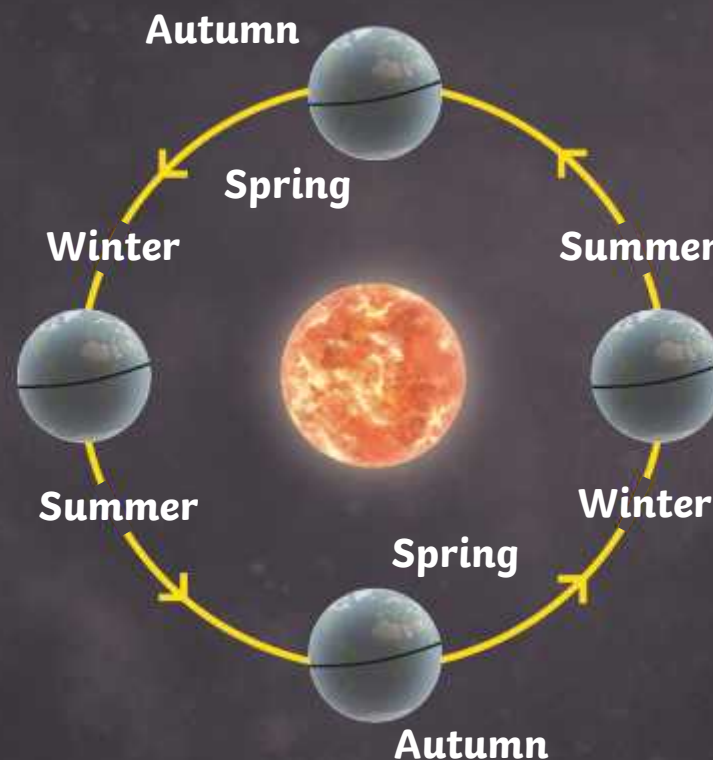


When the northern hemisphere of the Earth is tilted toward the Sun, people in these regions are experiencing **summer**.

Seasons in the Southern Hemisphere

The seasons are created through the combination of the Earth's **revolution** and the **tilt of the axis**.

When the southern hemisphere of the Earth is tilted away from the Sun, people in these regions are experiencing **winter**.



When the southern hemisphere of the Earth is tilted toward the Sun, people in these regions are experiencing **summer**.

Can You Revolve?



You will need:

- A partner
- A little space to move

1. Have one friend represent the Earth, and the other friend represent the Sun.

2. The 'Sun' will stand still, while the 'Earth' revolves around the sun.

3. Switch roles with your partner and try it again.

Do You Know the Difference?

Explain to your partner how **rotation** and **revolution** are different.
Try to use as many of these key words as possible:

axis

spin

orbit

seasons

tilt

year

day

night

