

FAIRBANKS MUSEUM & planetarium

Introduction to Astronomy

Earth's Rotation and Revolution

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The following instructions represent additional resources for continued study of the topics covered in our "Introduction to Astronomy" online class. All materials are the property of Planetarium Educator Hannah Buckner who created them. Any websites included are the property of the individual website owners and have been reviewed by a Fairbanks Museum & Planetarium educator.

Overview & Purpose

At the end of the lesson and after completing the homework, students should be able to feel confident in explaining why the Sun seems to move across the sky, how the Earth moves, and be able to know the key words without assistance.

Highlights of the Lesson

1. The Earth is not stationary
2. The Earth is tilted on its axis and rotates on said axis
3. The Earth's orbit relates directly to a year on Earth

Materials Needed

1. NASA Our Solar System Overview:
<https://solarsystem.nasa.gov/solar-system/our-solar-system/overview/>
2. Stellarium:
<https://stellarium-web.org/>
3. Crash Course Kids: Earth's Rotation and Revolution:
<https://www.youtube.com/watch?v=l64YwNl1wr0>

Homework

Putting your knowledge to the test!

PART ONE: Define each of the terms using your own words and use them in a sentence.

Revolution

Axis

Orbit

Rotation

Tilt

PART TWO: Choose one of the 7 planets listed below to answer the following questions. You may need to look up the answers on Google if they are not available on NASA's *Our Solar System Overview* page.

Pick a Planet:

- Mercury
- Venus
- Mars
- Jupiter
- Saturn
- Uranus
- Neptune

What planet did you choose?:

Does it have a tilt? If so, how many degrees is it?:

How long does it take the planet to complete one rotation? Please either use hours or Earth Days:

How long does it take the planet to complete one revolution? Please use Earth Days or Earth Years:

How fast is the planet orbiting the Sun?:

