



name _____ date _____

Doing a Group Project

This is your chance to try one of the more challenging “Habits of Mind”: Metacognitive thinking.

Here is a definition of metacognition: *metacognition is our ability to know what we know and what we don't know. It is our ability to plan a strategy for producing what information is needed, to be aware of our own steps and strategies during the act of problem solving, and to reflect on and evaluate the productiveness of our own thinking.*

Think about completing a group project. Answer these questions.

- 1. How well did you work with your group? How much effort did you put into completing the project? How did you make sure you did your share and that you did it well? What could you do to make it better next time?**

- 2. What was hard about working on a project as part of a group? What could your partners do to make it better next time?**

The Rotating Earth

Did you ever wonder why some the earth has day and night?

The reason we have day and night is because the earth is tilted. The earth is tilted on its axis. This means that one side of the earth is always facing the sun. This side is always warm. The other side is always dark. This is why we have day and night. The earth is tilted on its axis. This means that one side of the earth is always facing the sun. This side is always warm. The other side is always dark. This is why we have day and night.

The Moving Earth

by Miles, Lauren, and Keith

It takes 365 days for Earth to go around the sun. This is why we have seasons.

When your side of Earth has the winter, the other side of Earth has the summer.

Earth

Sun



Earth also rotates on its axis, which gives us day and night.

All Earth has seasons. When your side of Earth has the winter, the other side has the summer.

The Rotating Earth
You may think that the sun is the center of the world, but it is not. The sun is the center of our solar system. The earth orbits around the sun. This means that one side of the earth is always facing the sun. This side is always warm. The other side is always dark. This is why we have day and night.

The earth orbits around the sun.

Spring

Sun

Summer



Fall

A line of water, called an equator, divides Earth into two equal parts. These are called "hemispheres".



March

June

December

September

The Revolving Earth

Have you ever wondered what causes the seasons? Well you'll find out right here.

The seasons are caused by the earth revolving around the sun and the tilt of earth's axis. As the earth revolves around the sun, part of the earth is tilted toward the sun. 6 months later, that part is tilted away from the sun. Since we have seasons, whenever the northern hemisphere is tilted toward the sun, the day is longer and the sun rises higher into the sky. Winter is the exact opposite, and March and September rise the distance in between summer and winter. If the earth wasn't tilted, the seasons would be the same, and you could only play in the snow or go to the beach at different parts of earth. So thank Earth's axis!

It takes 24 hours
for Earth to spin
all the way around
that's why there
are 24 hours in
one day.

When your side
of Earth faces the
sun, it's day time.
When your side
of Earth turns away
from the sun, it's
Nighttime.

Earth

Sun



As Earth rotates, one side
of Earth faces the sun while
the other side faces away
from the sun.

The Rotating Earth

The Rotating Earth

You may think that the sun rises in the east, sets in the west, and moves across the sky in between. But that's not true, it just looks that way because the earth is moving.

It takes 24 hours for the earth to completely spin all the way around, that's why we have 24 hours in one day. Since the earth rotates west to east, the sun, moon, and stars seem to rotate around one star, called Polaris. This is known as the north star. Now you know why the sun seems to move east to west across the sky, and why the moon and stars seem to rotate around the star Polaris.