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# Our Solar System: Turning Around

## Learning Objectives

Students will be able identify stars, planets, and satellites and learn how they move in relation to one another.

## Lesson

### Introduction (20 minutes)

- Ask students if they ever notice the position of the sun in the morning and in the evening.
- Have students share their thoughts with the class about the position of the sun throughout the day.
- Watch [Kindergarten Time](#).
- Have students discuss as a class what they see.

### Explicit Instruction/Teacher Modeling (25 minutes)

- Ask your students to name what they can see in the sky.
- Make a list of what your class comes up with.
- Once the list is complete, go through and divide them into "moving" and "nonmoving."
- "Stars," including the sun, should be the only thing in the nonmoving group. In the moving group should be planets and satellites, including the moon.
- Explain to students that **stars** give us heat and light.
- Tell students that **planets** orbit around the sun and **satellites** orbit around planets.
- Explain to students that our planet has two movements: **rotation** and **revolution**.
- Tell students that rotation is when the Earth spins on its axis and that it is the reason we have day and night. Tell students that one rotation takes 24 hours, or 1 day.
- Tell students that revolution, or orbit, is when the Earth moves around the Sun. It gives us the four seasons, and it takes 365 days, or 1 year.

### Guided Practice/Interactive Modeling (15 minutes)

- Assign your students to be parts of the solar system and to act out the motion of the planets.
- Have one student stand in the middle to be the sun.
- Have one student walk around the sun and spin to represent the Earth. Have another student rotate around the Earth to represent the moon.
- If you have enough room you could also have students representing the other planets.



### Independent Working Time (20 minutes)

- Have students create a tree graph with "Our Universe" as the starting root.
- Out of that, have student draw three branches to "Stars," "Planets," and "Satellites."
- Have students put in details about these branches. For example, the sun is a star that gives us light and heat. Have students name the planets, and out of "Earth" have them include how it both rotates and revolves. Under "Satellite" have students write "moon."
- Give students some time to try and figure out these details themselves and then go over the chart as a class.

### Extend

#### Differentiation

- **Enrichment:** Advanced students can make sentences using their tree chart about all the ideas expressed in it. These students can also make a story as if they were on a space craft describing what they see out their windows.
- **Support:** Struggling students can draw many pictures in their tree chart with just the key words in them.

### Review

#### Assessment (10 minutes)

- Give students a quiz by having them put their heads down and using a thumbs up or a thumbs down to show whether a statement is true or false.
- Give the following statements:
- The Earth is a satellite: F
- In the sky there are stars, planets, and satellites: T
- Satellites orbit around the Sun: F
- Stars give us light and heat: T
- Planet Earth has 4 movements: F
- Planet Earth has 2 movements: T
- There are 7 planets: Mercury, Venus...Neptune: T
- Rotation gives us the seasons: F
- Revolution takes 24 hours: F
- Revolution gives us the seasons: T

### Review and Closing (30 minutes)

- Give students a black piece of paper and crayons or colored pencils that will show up on it.
- Have students draw our solar system and label the sun, the names of the planets, and the moon.
- Allow students to share their drawings with the class.

Source: <https://www.education.com/lesson-plan/turning-around/>

