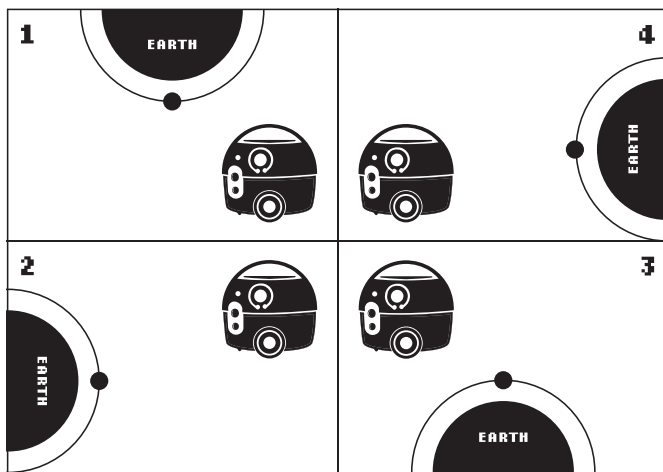


THE NEAR SIDE OF THE MOON

TEACHER GUIDE

OBJECTIVE: Students will demonstrate the rotation and revolution of the Moon. They will then make observations and conclusions.

TEACHER INSTRUCTIONS: Use the Ozobot Blockly program found with share code **5nc2gu** or visit <https://ozo.bot/b/5nc2gu>. Pair the bot. This program will tell the bot to travel on the black line and stop at the green marks. When the bot stops, have students observe the bot from the perspective of the Earth and draw what they see. When a student is finished drawing, they will place their hand behind the bot to make it move forward to the next green mark.



MATERIALS NEEDED:

- Ozobot
- A device with access to Ozobot Blockly
- Sun, Earth & Moon Model
- The Near Side of the Moon Activity Sheet

TEACHER TIPS:

Review the definitions of rotation and revolution.

Students can work in groups of 2–4.

Each student needs their own Activity Sheet.

Students can start the bot anywhere on the black line as long as they observe the relationship between the Earth and bot and draw in the correct box.

Tip: Dim the lights in the classroom for better visibility of the model.

The Moon rotates around its axis one full rotation in 27 days. The Moon also revolves around the Earth once every 27 days. Since the Moon's rotation is the same as the Moon's revolution around the Earth, we always see the same side of the Moon.

INSTRUCTIONS:

1. In Ozobot Blockly, open the program using share code **5nc2gu** or visit <https://ozo.bot/b/5nc2gu>.
2. Position your bot on the circle facing counterclockwise, and run the program.
3. When the bot stops, draw the side of the bot you would see if you were standing on Earth observing the bot.
4. After you have drawn your bot, place your hand behind the bot to tell it to continue to the next stop. Repeat step 3 until you have completed drawings at all four stops.
5. Notice the similarities and differences in your drawings.
6. Write your observations and conclusions.