



1st Grade

Unit 2: Explore My Neighborhood

Essential Question #1: How are things both similar and different in my neighborhood?

Lesson Title: Exploring What is in the Sky

SC Standard II, Objective 2

Implementation Time: Two 45-minute sessions

Materials Needed:

Nice day (near 3rd quarter of the moon phase so that the moon is in the daytime sky)
What I See worksheets

Procedure:

Background Information: *This lesson is to help students see that as the Earth rotates, the Sun's position in the sky changes and that the moon is sometimes visible in the sky (sometime during the day for most of the month, except near new moon, and right at full moon).*

To observe the moon in the morning, you need to pick a day of the month when the moon's phase is close to third quarter (also known as last quarter). Many regular calendars show the moon's phases, or see a lunar calendar (<http://stardate.org/nightsky/moon/>) At third quarter the moon will be leading the sun across the sky by ninety degrees, so in the morning when the sun is in the eastern part of the sky, the moon will be in the western part of the sky. The moon looks dim during the daylight hours, and is sometimes hard to find. Make it a game to see who can find it first.

Two or three days after third quarter, the moon will be higher in the sky, closer to the sun, and a thinner crescent, more difficult to spot. Two or three days before third quarter begins the moon will be in the waning gibbous phase, and lower in the sky further from the sun. The moon is brighter in this phase, but if it is too low in the sky, it may be difficult to spot.

1. Do a brainstorming activity with students using a prompt like: "Words that come to mind when I think of the sky." You can choose to have students write these words individually, or you can record the responses at the front of the room.
2. Have students go outside to observe the daytime sky, (remind them of the danger of looking directly at the sun). Encourage them to be like scientists and be careful



observers. (students will come up with things like clouds, sun, airplanes etc...)

3. Ask students:

What objects do you see?

Are any of these objects moving? Describe how they are moving.

Which of these objects do you think you would be able to see at night?

4. Have students create a journal page, documenting their observations in words and pictures.

5. Go back outside again 2-3 times that day and have students notice that the sun is not always in the same place.

6. Students could create a drawing for each position of the sun, or you could do one on the board or on chart paper for the class.

7. Have students share their drawings, or bind them into a class book to read aloud and leave in the classroom library.

8. Lead students in a discussion of how they think the sky's objects will change over time.

Ask students:

What do you think will still be in the sky tonight?

What do you think will still be in the sky tomorrow?

9. Optional: Have students complete a follow-up activity at home, this time documenting objects in the evening or nighttime sky. Again, have students complete a journal entry based on their observations.

10. Discuss which objects were seen in both the daytime and nighttime sky.

Assessment:

Create a Venn Diagram of Day and Night sky objects

Go over the class book of illustrations

Extension:

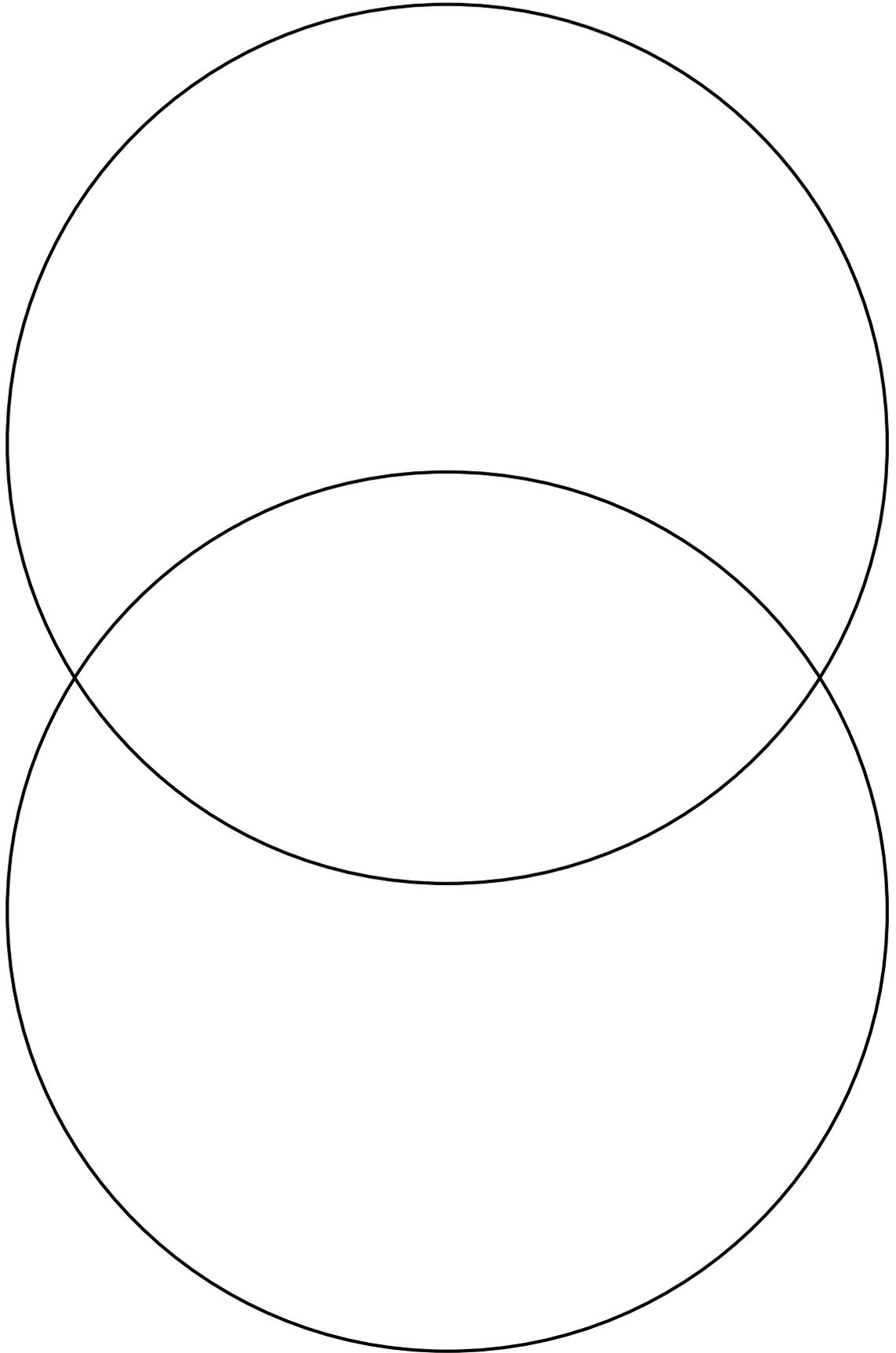
This could be repeated for several days, encouraging students to realize constancy and change. For example, take the students outside at different times, in different conditions, etc. Have students draw pictures of objects overhead relative to objects on the ground.

Technology: Play a matching game of moon phases online

http://www.sciencenetlinks.com/interactives/moon/moon_challenge/moon_challenge.html (Choose level 1)



What I see in the Sky





What I see in the sky...

Day

A large, empty rectangular box with a black border, intended for a student to draw or write their observations of the sky during the day.



What I see in the sky...

Night

A large, empty rectangular box with a black border, intended for a student to draw their observations of the night sky.