## Grade: 1st Program Title: "You Are My Sunshine" Quarter: 4th Number of hours: 1:15

## Performance Expectations:

1-ESS1-2 Make observations at different times of year to relate the amount of daylight to the time of year.

CCRS-M: Content.1.MD.B.3 - Tell time in hours and half-hours using analog and digital clocks.

**CCRS-RELA: RL2** Retell stories, including key details, and demonstrate understanding of their central message or lesson. Identify the elements of a story, (e.g., characters, setting, problem, and solution).

| Science and Engineering<br>Practices                  | Disciplinary Core Ideas  | Cross Cutting Concepts   |
|---|--|--|
|   | <ul> <li>1-ESS1-2</li> <li>Make observations at<br/>different times of year<br/>to relate the amount of<br/>daylight to the time of<br/>year.</li> </ul>   | <ul> <li>CCRS-M: Content.1.MD.B.3</li> <li>Tell time in hours and half-hours using analog and digital clocks.</li> <li>CCRS-RELA: RL2</li> <li>Retell stories, including key details, and demonstrate understanding of their central message or lesson. Identify the elements of a story, (e.g., characters, setting, problem, and solution).</li> </ul> |
| Maryland College and Career-Ready Standards (MD-CCRS) |  |  |
| ELA/Literacy  | <ul> <li>CCRS-RELA: RL2</li> <li>Retell stories, including key details, and demonstrate<br/>understanding of their central message or lesson. Identify the<br/>elements of a story, (e.g., characters, setting, problem, and<br/>solution).</li> </ul> |  |

| Mathematics | <ul> <li>CCRS-M: Content.1.MD.B.3</li> <li>Tell time in hours and half-hours using analog and digital clocks.</li> </ul> |
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| Program Title:      | "You Are My Sunshine"   |
|---------------------|---|
| Lesson Objective(s) | <ul> <li>Visiting students will learn and explain:</li> <li>Why the Sun is the most important star to the Earth;</li> <li>How to protect their head, eyes and skin from harmful UV rays; and</li> <li>How to find constellations in the Spring and Summer Skies.</li> </ul> |
| Resources/Materials | Planetarium, "You Are My Sunshine" story, NASA SDO and EPA resources and UV Experiment Frisbee.   |

**Engagement ( 5 min):** Activities capture the students' attention, connect their thinking to the situation, and help them access prior and current knowledge. Students may experience a new phenomenon or reflect on an anchor phenomenon.

The show will open with little Patrick in a bath tub with a bad case of sunburn who mistakenly comments that he wished the Earth didn't' even have a Sun. Students' prior knowledge of story elements and the Sun will be assessed through interactive discuss. Then the visiting first graders will be invited to join Patrick and his friends to explore how important the Sun is to the Earth. Visiting students will also be informed about the interactive tasks (clock reading, helping Patrick dress for UV protection, location of constellations, Singing and UV experiment) they will conduct during the program.

Exploration (20 min): Activities allow students to investigate initial ideas and solutions in meaningful contexts.

During the program, visiting first grade students will interactively explore some of the wonderful things the Sun does for the Earth with the main character Patrick, his friends, classmates and family as they meet knowledgeable experts, including:

- A Gardner who teaches Patrick about how the Sun provides heat and light for plants to grow and make oxygen for us to breathe.;
- A NASA Solar Scientist who informs audiences about the Sun's location, composition and connection with the Earth; and
- A Life Guard at the Pool who advices the characters and visiting students how to protect themselves from the Sun's harmful UV rays.

**Explanation (20 min):** Students develop an explanation for the concept and practices. Teacher's descriptions and definitions help clarify and modify students' understanding of the lesson.

Visiting First Grade Students will have the opportunity to share what they have learn as they help Patrick dress for protection from the Sun's harmful UV rays before he goes outside.

Elaboration (30 min): Activities provide students with opportunities to expand and apply their understanding of the concepts within new context and situations.

A Life Guard will provide Sun Safety tips for Patrick and his friends including how to avoid Sunburn. The Post-Visit Resource Packet also includes seed germination, sun safety, albedo shirt and reading activities to extend Sun-Earth science concepts presented in the show. The Live Owens presenter will interactively share with the students how the Sun assist with the water cycle and demonstrate how Rainbows are created by Sunlight as well as show a real spacecraft data video of gases moving on the Sun and introduce students to the many types of light coming from the Sun focusing primarily on the "visible" – light we see, IR invisible light we can detect as heat and "UV" invisible ultraviolet light that can harm our skin and eyes.

The students will also be taken on a tour of the Spring and Summer night skies to interactively locate the: "Big Dipper", "Polaris", "Leo", "Jupiter", Scorpius" and Sagittarius".

Evaluation (5 min): Students analyze their understanding of the concepts, and teachers have the opportunity to assess student learning.

Assessment will be ongoing throughout the program evaluating student responses, explanations and accuracy in completing interactive activities with the main program character Patrick. Students' knowledge of the positive effects of the Sun will be assessed at the end of the show and the students will sign "You Are My Sunshine!" EPA Sun-Wise and NASA Post Visit Activities will be highlighted and given to the visiting teachers.

**Modifications and Accommodations:** 

• Lesson Modifications and Accommodations will be made by the HBOSC Instructor as needed.

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