Pre and post-visit activities for *Little Star Explorers* Field Trip Package

An astronomy lesson for grades Kindergarten-2nd

Learning Goals (for field trip and pre/post-activities)

- Students will know some characteristics of stars, planets, and moons.
- Students will use materials to design and build a model space craft.
- Students will present their work to the class in a brief presentation explaining their design idea.

Pre-visit Activities

Before bringing students to the Science Center you may want to try some of the following activities in order to activate prior knowledge and prepare them for their field trip. (Grades K to 2) Lessons should be adjusted for grade level.

1. Get to Know the Planets
    a. Read a book or watch a video about the sun, planets, and moons in our solar system.
        i. We recommend *Dogs in Space* by Nancy Coffelt or *The Magic School Bus: Our Solar System* by Scholastic
    b. Discuss the names of the planets and that some have moons.
2. Exploring Space
    a. Visit Nasa.gov to learn about current missions and get to know some of the technologies used in space.
    b. Think and talk about how each technology works.
        i. International Space Station – Six astronauts from around the world live in space and perform studies and experiments.
        ii. New Horizons – spacecraft that is studying Pluto and the icy region of our solar system.
        iii. Curiosity Mars Rover – vehicle studying if Mars was ever able to support tiny (microbial) life.

Post-visit Activities

You can extend your visit to the Science Center back in the classroom with the following post-visit activities. (Grades K to 2) Lessons should be adjusted for grade level.

1. NASA Kids Club
    a. Go to nasa.gov/kids club website to play games related to space.

b. Use the Parents and Educators page (listed in the resources section of this document) to read about each game/activity and decide which are best for your students.

2. Design Challenge
    a. Think of other design challenges that your students can complete related to your curriculum.
    b. Gather recycled materials (students can bring from home) to supply their builds.
    c. Organize students to work in small groups to create a design, build it, and present their work to the class.

Standards Addressed (NGSS)

NGSS K-PS3-2, K-ESS3-2

Resources

- YouTube Planets Song Video (3:48) https://www.youtube.com/watch?v=noiwY7kQ5NQ
- YouTube Exploring Our Solar System: Planets and Space For Kids (11:54) https://www.youtube.com/watch?v=Qd6nLM2QlWw
- NASA Kids Club – online games integrating cross curricular objectives with a space theme. https://www.nasa.gov/kidsclub/index.html
- NASA Kids Club for Parents and Educators – brief description of each game/activity with cross curricular objectives clearly defined. https://www.nasa.gov/kidsclub/text/extras/Game_Descriptions_National_Standards.html
- NASA Missions – learn about recent missions and the technologies used to support them. https://www.nasa.gov/