Lesson Number: Unit 7: Space Date: **Sept. 18th, 2022**

Time Frame: 60 minutes Content Area: 6th Grade Science

Central Focus: How do we distinguish between Jovian and Terrestrial planets.

Lesson Overview	
MS MS-ESS1-3: Analyze and interpret data to determine scale properties of objects in the solar system. **Rationale/Purpose:** Reinforce the definition of Jovian vs. Terrestrial planets through the exploration of those in other solar systems.	
Lesson Objective/SWBAT: - Identify the characteristics of exoplanets - Analyze data from NASA's exoplanet exploration tool - Utilize vocabulary in explaining claims about planet classifications - Classify planets as Jovian and/or Terrestrial	
Instructional Materials / Resources Needed: - Instructional Packets/Handouts - Chromebooks - Video(s)/projector	
Formal (Summative) Assessment of the Lesson Objective(s): An exit slip within the handout/packet.	**Evaluation Criteria – how do you define proficiency?** An Answer Key will be used to evaluate student proficiency.
Academic Language: <u>Vocabulary</u> Jovian Planet Terrestrial Planet Solar System Exoplanet	**Academic Language: <u>Function</u>** Differentiate/distinguish terms to avoid student misconceptions on material, and support the central idea/focus.
Additional Language Demands for this Lesson: **<u>Discourse:</u>** Students are presented with modeling of scientific language through given prompts and video of scientific speakers. **<u>Syntax:</u>** Modelling and visual representation of specific sentence structures, graphic organizers.	
Lesson Procedure and Informal Assessments	
"Before" – Opening (5 minutes) Students will silently complete the do now for 5 minutes about the definitions and visual representations of Jovian and Terrestrial planets.	
"Before/During" – Modeling / Inquiry / More Thorough Review if Needed (10 minutes)	
"During" – Guided Practice (5 minutes) Students will volunteer to show the class their example of the do now. Students who are confused will be shown the exemplar and modelled a student response.	**All Informal / Formative Assessment(s) / Questions:** - What type of planets in our own solar system are terrestrial? Jovian? - What must jovian planets have? Terrestrial planets have?

	- What are different between the two types of planets?
Independent Practice/Support (20 minutes) Cont'd Students will be prompted to go on their laptops and explore NASA's exo-planet simulation using the provided exoplanets on their paper. Students will have 1-2 minutes to log in, then in 5 minute intervals we will use the simulation to explore the planets. Prepping students to keep up with the pace of the lesson.	
"After" – Closing (5 minutes) w/ 5 minutes before transition. Exit ticket: Students have to match their vocabulary term to the appropriate definition as learned in class.	
Planned Supports: Accommodations/Modifications (Throughout Lesson) Monitoring of student progress with teacher moves, using alternative forms of explanation, such as drawing and use of partner work to support students with the use of their peers.	