

Template for a Lesson Plan (Teacher and Student Activities)

Class: Science Grade 6

Date: Monday 6 December

Unit Title: Sky Science

Planets and the Solar System Part 1:

Objective of Lesson:

Introduction to Planets brochure – Interactive choosing activity

Learner Outcomes (Program of Studies) Grade Six Sky Science SLE: 9, 10, 11		Plan for Differentiation Provide alternative instructions techniques: Direct Instruction Note taking – Notes to be place on board for week for students who need them afterwards Small group work Large group discussion <i>Students with literacy challenges will be provided prompts and individual instruction during working periods and extra time if required (A, F, G, Ak)</i>			
	Time	Teaching Strategy	Student Activity		
Introduction 5 minutes ish		<div>Review terms briefly. (Slide 1 of planets deck on screen for constellation review) Call and Answer:<table><tr><td>Magnitude Rotation v Rev. Direct v Indirect</td><td>Circumpolar Constellations Counterclockwise rotation Asterism</td></tr></table></div> <div>Reminder to get quiz corrections in. One on One with students either near or below 50%.</div>	Magnitude Rotation v Rev. Direct v Indirect	Circumpolar Constellations Counterclockwise rotation Asterism	Students will need to have their Unit workbooks out for this lesson. We will be discussing sections on pages 11 and 12.
Magnitude Rotation v Rev. Direct v Indirect	Circumpolar Constellations Counterclockwise rotation Asterism				
Facilitation		<div>10-15 minutes of “space exploration together” COVID in space! Students can ask questions about the planets and other objects of our solar system. Live googling may be required. Slides 3-17 are good “exploration slides” to focus discussion and page 11 and 12 of their workbooks.</div> <div>ASK: Please have your workbook out to page 11. During our discussion, write down some facts about two different planets that interest you on the bottom.</div>	<div>Points to bring up if students don’t:</div> <div>Dwarf planets! (Pluto/Ceres) Are there planets/worlds with possible life? (Enceladus?) Where is the solar system’s largest mountain? (Olympus Mons!)</div>		

Closure Need last 10-12 minutes of class New Terms: Inner planets Outer planets Dwarf planets		Hand out Ticket envelopes ASK: You have been given a mission to explore a world for future tourism or science exploration. In that Envelope are the options available to you. Before the end of class, you must circle the “World” you are going to explore and write your name on both pieces. Once done, hand in half your ticket to me. I need this before the end of class. You can trade with your classmates if that is agreeable to both parties involved.	Students to have time to consider/trade their ticket with peers. SEE POWERPOINT FILE: “Planets Brochure tickets”
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Planets and the Solar System Part 2:

Date: Tuesday December 7

Objective of Lesson:

“Worlds of the Solar System” brochure – Research Phase

Learner Outcomes (Program of Studies) SEE PART 1		Plan for Differentiation SEE PART 1							
	Time	Teaching Strategy	Student Activity						
Introduction Aprox 15 minutes		Review terms briefly. <table><tr><td>Inner planets</td><td></td></tr><tr><td>Outer planets</td><td></td></tr><tr><td>Dwarf planets</td><td></td></tr></table>	Inner planets		Outer planets		Dwarf planets		Template includes rubric with specific required outcomes for Beginner/Intermediate/Mastery
		Inner planets							
Outer planets									
Dwarf planets									
Introduce “Worlds of the Solar System” Research template. SEE WORD FILE: “Worlds of the Solar System Brochure” Review each of the five components that will need to be included on their brochure using my example brochure. SEE POWERPOINT FILE: “Planets Brochure Example” <i>Example includes Blackfoot name for Moon</i> Emphasis timeline expectations.									
Facilitation		Research for rest of period. Circulate room to ensure students are on task and assisting students who need tips with search terms. Assist students with literacy issues. <i>Read research questions out loud and verify understanding.</i>							
Closure		Remind students of timeline expectations and that I will be performing a homework check in	<i>(Students with literacy difficulties can be provided more time if need be)</i>						

		homeroom to verify they have significant research completed	
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Planets and the Solar System Part 3:

Date: Wednesday December 8

Objective of Lesson:

“Worlds of the Solar System” brochure – Design phase

Learner Outcomes (Program of Studies) SEE PART 1		Plan for Differentiation SEE PART 1							
	Time	Teaching Strategy	Student Activity						
Introduction Aprox <5 minutes		<div>Review terms briefly. <table><tr><td>Inner planets</td><td></td></tr><tr><td>Outer planets</td><td></td></tr><tr><td>Dwarf planets</td><td></td></tr></table> Remind students about brochure rubric. Each of the Five parts has at least two points to be made. SEE POWERPOINT FILE: “Planets Brochure Exemplar”</div>	Inner planets		Outer planets		Dwarf planets		Template includes rubric with specific required outcomes for Beginner/Intermediate/Mastery
Inner planets									
Outer planets									
Dwarf planets									
Facilitation Workbook review 10 minutes Design Phase for Brochure rest of class.		<div>Review Pages 13/14 of workbook. Remind students that complete workbook pages will be posted on back whiteboard if they are missing anything. Brochure Design for rest of period. Circulate room to ensure students are on task and assisting students who need tips with search terms if still doing research. Assist students with literacy issues. <i>Read research questions out loud and verify understanding, provide search prompts, and remind of rubric expectations.</i></div>	<div>NOTE: Next time, on “Planets Brochure Exemplar” include Search Strategies</div>						
Closure		<div>Remind students of timeline expectations and that they should have their brochure started by this point. <i>Students who have missed Monday and/or Tuesday to be individually approached to allow for timeline/due date extensions.</i></div>	<i>(Students with literacy difficulties can be provided more time if need be)</i>						

Planets and the Solar System Part 4:

Date: Thursday December 9

Objective of Lesson:

“Worlds of the Solar System” Scale of the Solar System and Brochure Work

Learner Outcomes (Program of Studies) SEE PART 1		Plan for Differentiation SEE PART 1	
	Time	Teaching Strategy	Student Activity
Introduction Aprox <2 minutes		Review terms briefly. Inner planet Outer planet	
Facilitation Scale demonstration (Aprox 15 minutes)		<p>Today we are going to review and enact a demonstration of the scale of the solar system.</p> <p>Our Sun has been shrunk down to the size of a volleyball. Earth and Venus are beads and Mercury is the head of a pin. I need you to use your imagination though, Earth and Venus really should be about 2/3rds the size they are.</p> <p>Stretch string from sink to window. Nicole and Kiera to assist.</p> <p>ASK: Let’s line up starting at Ms C (Bookcase position) and walk from Earth to the Sun. Then let’s return to our seats quietly so we can see on the screen where Mars and the rest of the planets ended up.</p> <p>Bring up PowerPoint slide for CAA google maps. (Short group discussion) PP FILE: “Solar System Scale” ASK: Does anyone remember what the Oort Cloud is?</p> <p>Where do we think it is? (Halfway to Canmore and ends in Northern Japan)</p>	<p>Student volunteers to Move Earth from Sun to Its position at window bookcase, move Venus to marked position near Math White board, and “pin” mercury in its position.</p> <p>Rest of class for work period on brochure.</p>
Closure		<p>Remind students of timeline expectations and that they should have their brochure complete, and it needs to be completed as homework if not. To be handed in at the beginning of Friday’s class.</p> <p><i>Students who have missed Monday and/or Tuesday to be individually approached to allow for timeline/due date extensions.</i></p>	<i>(Students with literacy difficulties can be provided more time if need be)</i>