

TP2 Lesson Outline: 20 minutes

Date: Mar.17, 2016 Time: 9:05 to 9:25-9:30	Subject: Science Grade: 4	Topic: Solar system	Name: Hajood Abdulwahed 20145082
Context: <i>Place your lesson in the context of what has been taught in previous lessons, and in context of the structure of the class in which this lesson takes place</i>	<p>In previous lessons, students learned that the moon orbits the Earth and the Earth orbits the sun and what an orbit means, they also learned the names of the planets.</p> <p>In grades 1-3, students learned about the meaning of the solar system and the names of the planets.</p> <p>My part is at the beginning of the lesson, and it explains the meaning of the solar system and the order of the planets. My part will end in the middle of groups' activities as only two activities are included in my part.</p> <p>Then my CT will continue the lesson with the rest of the group's activities and will compare between the Terrestrial planets (inner planets) and the giant planets (outer planets)</p>		
Objective <i>Specific, appropriate.....</i>	By the end of this 20 minute lesson, students will be able to identify the meaning of the solar system and describe some of its components (planets).		
Summary <i>what will happen within the 20 minute time</i>	I will present a PowerPoint presentation that will be in sync with what I say and show. Then I will give a group activity for a total of 7 groups. And finally students will present their work to the class and I will interfere if there are any mistakes.		
Materials <i>Pictures, items, books...</i>	Students' whiteboard and markers, smart board, mini goals whiteboard, markers, A3 papers with orbits, glues, small paper planets.		
TEACHER actions and words <i>Statements of exactly the actions. Write the exact sentences and questions that will be used to motivate, teach, respond, and assess understanding.</i>	STUDENT expected actions and possible responses <i>Describe exactly what you expect the students to do. Write the possible responses to prompts and questions.</i>		
<ul style="list-style-type: none"> ● Today, our lesson will be about the solar system. ● You previously learned about it, right? ● So, what does the solar system mean to you? (Randomly choosing a student). ● What are different things in the space? (Each write his answer on the smart board). ● Yes, and we previously learned that the solar system consist of planets and the sun, right? 	<p>"yes"</p> <p>"The planets and the sun, the moon phases, aliens, earth,"</p> <p>"Planets, moons, stars, black holes, meteors, sun, asteroids, satellites ..."</p> <p>"Yes"</p>		

- Now I'm going to display a picture of the solar system, look carefully at it.
- Randomly choosing a number of students: You previously studied the different planets, who can list them to the class?
- They are in order -and with the student-: Mercury, Venus, earth, mars, Jupiter, Saturn, Uranus a Neptune.
- Randomly taking a number of answers: **What is the relation between these planets and the sun?**
- **Then what is the solar system? After taking multiple answers, I repeat the definition out loud.**
- On your mini board: In previous lessons we knew that the moon orbits the earth so we call it (-----) and the earth orbits the sun so it is called (-----). (If someone made a mistake, students should correct him).
- Then, we can say that the solar system is a number of follower planets that orbits the sun.
- Take out our mini boards.
- On the mini board: We also learned that the moon orbits the earth in an (-----). (If someone made a mistake, students should correct him).
- So, obviously planets orbits the sun in specific orbits.
- Randomly taking a number of answers: **Why do each planet has its own orbit?**
- Exactly. Now we are finished with our main goal, any questions?
- Now, I will distribute an activity on each group. You will have to identify the different planets, name, arrange and stick them in their suitable orbits on the A3 paper I will be distributing.
- A representative from each group will have to present their work, I will repeat if necessary and students should detect any mistakes.

8 students, every student will name a planet and if one couldn't he would choose another student.

"Planets orbits the sun..."

"A system where planets orbits the sun"

"Follower"

Students take their mini boards quietly out.

"Orbit"

"So they don't bump into each other"

Students should listen carefully to the instructions, receive their activities and solve them before the time ends.

Students should work together (some students will have to stand up so that everyone can equally work on the activity).

Students should stop with what they are doing and pay attention to the students that will be presenting and see if they made any mistakes.

- I will display the solar system picture again and ask the students some questions:
- 1. **What results from the difference in distance between the sun and the different planets? (this question will be clarified with an example: imagine that you were standing near the stove that is ON and you stand near it, then you take 2 steps backwards then 4 and so on, would the heat be the same in every time?)**
- 2. **Which planet is called the blue planet and why?**
- 3. **Which planet is called the red planet and why?** (If students couldn't answer -because of the iron oxide rust- this question becomes a research homework for the students).
- My part ends at this point, and my CT will continue.

“Difference in temperature and the length of the year”

“The earth, because of water on the surface”

“Mars, because of its rocks, because it is red, because there are volcanos, because there is no water”