



Srini Science Mind
Abdul Kalam Physical Science Group



NEW

8th class

PHYSICAL SCIENCE

MODEL LESSON PLAN



M.SRINIVASA RAO, SA(PS) AGKMHS GUDIVADA PH: 9848143855

MODEL LESSON PLAN

CLASS: 08

SUBJECT: PS

Name of the Teacher: M.SRINIVASA RAO

Name of the School: A.G.K.M.H.School, Gudivada

| Name of the Lesson/Unit | Topic | No.of Periods Required | Timeline for teaching | | Any specific information |
|--|---|------------------------|-----------------------|------------|--------------------------|
| | | | From | To | |
| Stars and The Solar System (Chapter-11) | Introduction – Astronomy- Celestial objects | 1 | xx/xx/xxxx | xx/xx/xxxx | |
| | The Moon | 3 | xx/xx/xxxx | xx/xx/xxxx | |
| | The Stars | 3 | xx/xx/xxxx | xx/xx/xxxx | |
| | Constellations | 3 | xx/xx/xxxx | xx/xx/xxxx | |
| | The Solar System | 5 | xx/xx/xxxx | xx/xx/xxxx | |
| | Some other members of the solar system | 2 | xx/xx/xxxx | xx/xx/xxxx | |

Prior Concept/Skills:

1. Who is the main reason we get heat and light?
2. When do lunar eclipses and solar eclipses occur?
3. How many members are there in our solar family? What are their names?

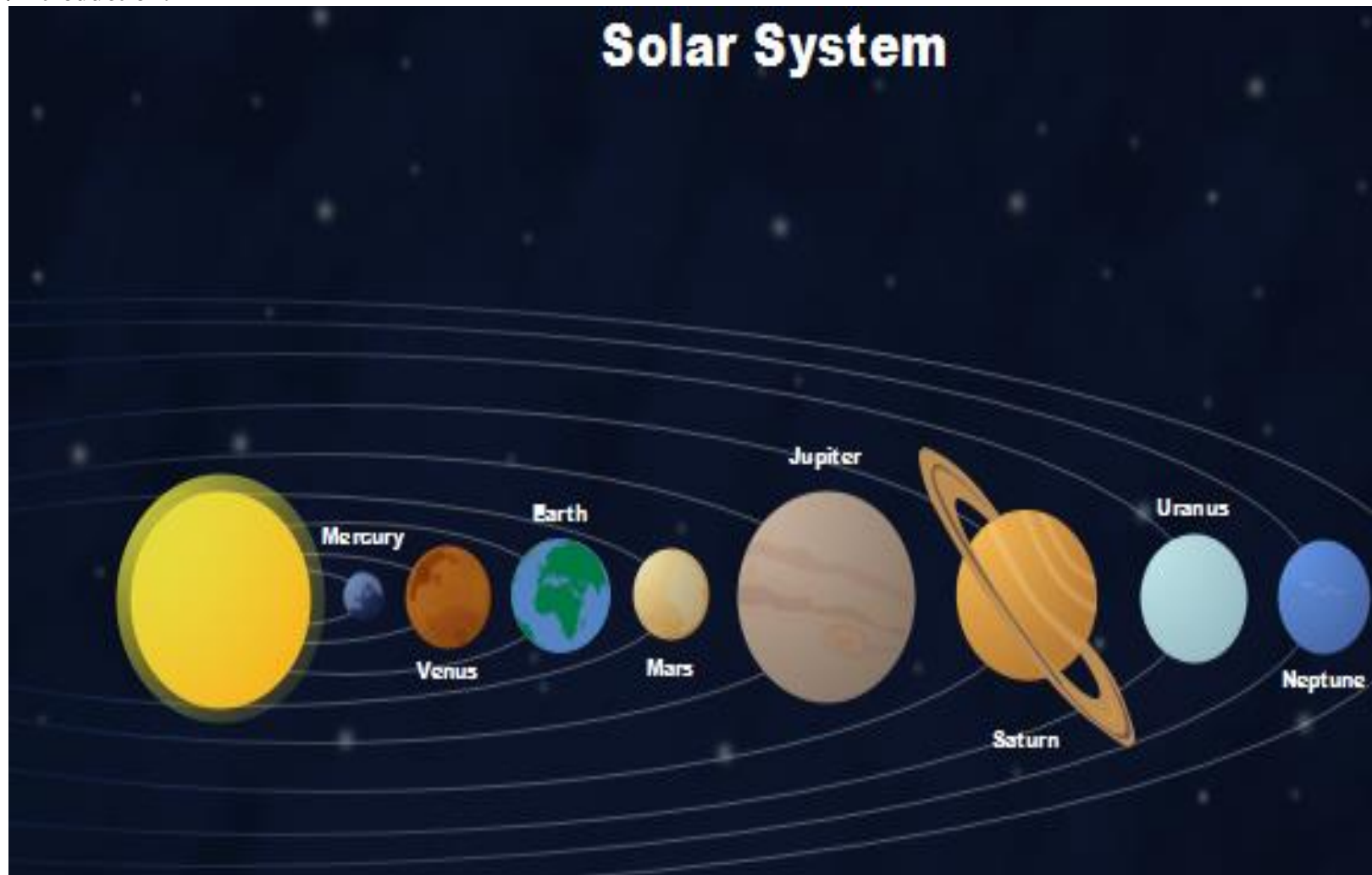
Learning Outcomes:

1. Classifies celestial objects based on characteristics.
2. Applies learning of scientific concepts in day to-day life, formation of day and night on the earth
3. Relates processes and phenomena with causes of phases of the moon.
4. Conducts simple investigations to seek answers to queries about Why does the moon change its shape every day?
5. Explains processes and phenomenon of the moon being visible due to reflected sunlight.
6. Draws labelled diagram of Ursa Major
7. Conducts simple investigations to seek answers to queries about Do all the stars in the sky move?
8. Exhibits creativity in designing, planning and making the modern solar system.
9. Constructs models using materials from surroundings and explains their working of the solar system.
10. Makes efforts to protect environment by launching artificial satellites.
11. Discusses and appreciates stories of scientific discoveries of artificial satellites.
12. Draws flow chart of uses of artificial satellites.
13. Applies learning of scientific concepts in day to-day life of artificial satellites

No. of Periods

- 1
- 2
- 1
- 1
- 1
- 2
- 1
- 1
- 2
- 1
- 2
- 1
- 1

Induction/Introduction:



Experience and Reflection:

1. Students will be able to understand the movements of the Sun, Earth and Moon in the Solar system and tell on which days the lunar and solar eclipses form.
2. Students learn how to launch artificial satellites and explore their uses.
3. Students develop a thorough understanding of the solar system and explore the reasons why conditions are favorable for human life on earth

| Explicit Teaching/Teacher Modelling (I Do) | Group Work (We Do) | Independent Work (You Do) | Notes for: |
|---|--|--|---|
| <ol style="list-style-type: none"> 1. Discussion and observation of sky at Night. 2. Discussion and Explain the phases of the moon. 3. Explain about the moon is visible due to reflected sunlight. 4. Conduct activity on the moon appears different at different positions in its orbit. 5. Explain and conduct an activity on the rotation and revolution of the moon. 6. Discussion and Explain the moon's Surface. 7. Explain and show the video about the stars. 8. Explain and conduct activity on pole star with help of an umbrella. 9. Discussion and explain constellations. 10. Explain and identification of Ursa major, Orion with help of Pole star moonless night during summer 11. Explain and shows a full video about the solar system. | <ol style="list-style-type: none"> 1. Students will tell what they have observed in the sky. 2. Students draws the phases of the Moon. 3. Why is the moon cold? – Group Discussion. 4. Students conduct an activity. 5. Students describe the motions of the moon and its effects. 6. Students collect the information of atmospheric conditions on the moon. 7. Students will watch the video. 8. Student will conduct an activity and describe the position of the pole star. 9. Collect the information of constellations. 10. Students will draws the shapes of Ursa major and Orion 11. Students makes the solar system model. | <ol style="list-style-type: none"> 1. Students write the definition of celestial bodies. 2. Students will give a reason, why phases of the moon change? 3. Students complete the homework? 4. Students collect the information of the moon appears different at different positions in its orbit. 5. Students compare the size of the earth and the moon. 6. “Can we hear any sound on the moon? – Express in own way 7. Students complete the homework. 8. Students give the reasons, why the position of pole star doesn't change. 9. Students will give examples of Constellations. 10. Explain how you can locate the Pole Star with the help of Ursa Major. | <ol style="list-style-type: none"> 1. What celestial bodies can be found in the universe? 2. How are the phases of moon related to our day-to-day life? 3. Is the moon a natural or artificial source of light? 4. Why does the Moon appear differently on different nights? 5. Why does the Moon rotate around the Earth? 6. Can any life exist on the moon? 7. How long do stars live for? 8. Why does pole star doesn't move? 9. Which constellation is known as the Hunter? 10. What are the three important constellations? 11. What is a solar system? |

| | | | |
|---|---|---|---|
| 12. Discussion and describe the members of the solar system. (Mercury, Venus, Earth) | 12. Students collect the information of planets in the solar system. | 11. In which part of the sky can you find Venus if it is visible as evening star? | 12. Which planet is called morning star or evening star? |
| 13. Discussion and describe the members of the solar system. (Mars, Jupiter) | 13. Which planet is the red planet? – Group discussion | 12. Students complete the homework. | 13. Which small objects revolve between the orbits of Mars and Jupiter? |
| 14. Discussion and describe the members of the solar system. (Saturn, Uranus and Neptune) | 14. Students will present the satellites of the planets in tabular form. | 13. Students will describe the nature of planets in own way. | 14. Which planet has brightest rings? |
| 15. Discussion and explain the other members of the solar system. (Asteroids, Comets) | 15. Students explain the difference between asteroids and comets. | 14. Students read a story about ancient Indian astronomy. | 15. Are asteroids stronger than comets? |
| 16. Discussion and explain the other members of the solar system. (Meteors, Meteorites and artificial Satellites) | 16. Students collect information about satellites launched by India and their uses. | 15. Students frame any two questions on artificial satellites. | 16. What are the uses of artificial satellites? |

| | |
|---|--|
| Check For Understanding Questions | TLM's (Digital + Print) |
| <p>1. Factual:</p> <ol style="list-style-type: none"> 1. Why is space black? 2. Why does an artificial satellite not fall? 3. Is Pole Star a member of the solar system? <p>2. Open Ended/Critical Thinking:</p> <ol style="list-style-type: none"> 1. What happens if the moon gets too close to Earth? 2. What would happen without stars? 3. Why is the Moon's rotation and revolution the same? | <ol style="list-style-type: none"> 1. Used prepared Quiz paper. 2. Utilized digital classroom. 3. Provide video links QR codes, DIKSHA App. 4. YouTube video's link. |

3. Student Practice Questions & Activities:

1. What is a constellation? Name any two constellations.
2. Do all the stars in the sky move? Explain
3. Why does the moon change its shape daily?
4. Why is the distance between stars expressed in light years? What do you understand by the statement that a star is eight light years away from the Earth?

Assessment:

1. What are the difference between a star and a shooting star?
2. Draw sketches to show the relative positions of prominent stars in (a) Ursa Major and (b) Orion
3. The radius of Jupiter is 11 times the radius of the Earth. Calculate the ratio of the volumes of Jupiter and the Earth. How many Earths can Jupiter accommodate?
4. Suppose the distance between earth and sun becomes half of its present distance. What is likely to happen to life?

SIGNATURE OF THE TEACHER

SIGNATURE OF THE HEADMASTER

VISITING OFFICER WITH REMARKS