

## Chapter- 12

# Going Into Space

### STUDY NOTES

#### LET'S LEARN

About Space, Spacecraft and Astronauts.

#### WHAT IS SPACE?

- The earth is surrounded by air.
- Beyond this layer of air is space.
- If anything thrown into the air it will fall back on the ground.
- This is because of this pull or force of attraction which also known as force of gravity.
- We need special vehicles which have the power and space to take us away from the earth's gravitational force.
- A space rocket puts a spacecraft into space.



#### MAN ON THE MOON

- Man went to the moon for the first time in a spacecraft called Apollo 11, in 1969.
- The first man who stepped on the surface of the moon was **Neil Armstrong**.
- **Edwin Aldrin and Michael Collins** were the other two astronauts who travelled in the spacecraft with Neil Armstrong.

## LIFE ON THE MOON

- There is no air or water on the moon.
- So there are no plants or animals or people.
- There are huge potholes called craters on the moon's surface.
- The craters on the surface of the moon are much bigger than the potholes on our roads.
- The gravitational pull of the moon is less than that of the earth.
- Your weight on the moon will be one-sixth of your weight on the earth.
- Means an object weighing 30 kg on the earth will weigh only 5 kgs on moon.



## SPACE TRAVEL

- The astronauts go into space in a spacecraft.
- They wear special suits that contain a supply of air.
- These suits also protect them from harmful rays.
- Inside the spacecraft they conduct experiments.
- When needed, astronauts even have to repair the spacecraft while in space.



**KALPANA CHAWLA**

- Kalpana Chawla was the first Indian woman to go into space.
- She went in 1997 in the space shuttle, Columbia.
- She went into space again January 2003. However, she died on 1<sup>st</sup> February 2003, when her space shuttle crashed on the return journey.

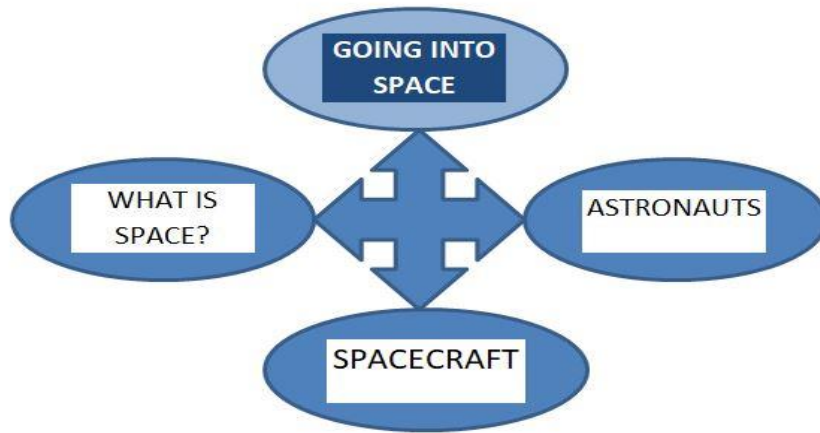
**SUNITA WILLIAMS**

- Sunita Williams was the second woman of Indian origin to go into space.
- She stayed in space in her spacecraft for 195 days.

**RAKESH SHARMA**

- Wing Commander Rakesh Sharma was the first Indian and 138th person to travel to space. He spent 7 days, 21 hours and 40 minutes aboard the Salyut 7 space station.



**MEMORY MAP****Teacher's note**

- Make a spacecraft by using the waste materials.

**Imrove your G.K.**

- Space is completely silent.
- One million earths can fit inside the sun.
- The sunset on mars appears blue.
- There are more stars in the universe than grains of sands on earth.
- One day on venus is longer than one year.
- There are more trees on earth than stars in the milkyway.

**Let's know more:****I. Fill in the blanks by unscrambling the words.**

- A space rocket puts a \_\_\_\_\_ (PSAECFTARC) into space.
- The pull or for of attraction is also known as \_\_\_\_\_ (ITYGRAV).
- There are huge \_\_\_\_\_ (OPTOHESL) called craters on the moon's surface.
- If you are weighing 36 kgs on earth you will \_\_\_\_\_ (WIEHG) only 5 kgs on the moon.
- Space travellers give us information about \_\_\_\_\_ (ACESP)

**Let us answer:****A. TICK ( √ ) THE CORRECT ANSWER.**

- Beyond the layer of the earth is
  - atmosphere
  - space
  - force of gravity
- They were the other two astronauts who travelled in the space craft with Neil Armstrong.

- a. Edwin Aldrin and Kalpana Chawla
  - b. Michel Collins and Sunita Williams
  - c. Edwin Aldrin and Michel Collins
3. Astronauts wear special suits that contain a supply of
- a. petrol
  - b. water
  - c. air
4. Kalpana Chawla died when she was
- a. going into space
  - b. returning from space
  - c. in space
5. If your weight on the moon is 7 kg, on earth it will be
- a. 41 kg
  - b. 42 kg
  - c. 43 kg

**B. Answer these questions.**

1. Why there is no life on the moon?
2. What do astronauts do in space?
3. When did Kalpana Chawla die and how?

**Answer Key:**

**A:** 1-b, 2-c 3-c 4-b 5-b

**B.1.Ans:** There is no air or water on the moon. So there are no plants or animals or people on the moon.

**2.Ans:** The astronauts conduct experiments inside the spacecraft and when needed they even have to repair the spacecraft while in the space.

**3.Ans:** Kalpana Chawla died on 1<sup>st</sup> February 2003 when her space shuttle crashed on the return journey.

