

CHAPTER – 4

AN INDIAN – AMERICAN WOMAN IN SPACE:

KALPANA CHAWLA

2 MARK QUESTIONS

1. Where was Kalpana Chawla born? Why is she called an Indian – American?

Answer:

Kalpana Chawla was born in Karnal, Haryana. She got married to an American citizen and thus became a naturalized American. So, she is called an Indian-American.

2. When and why did she go to the U.S.? Who did she marry?

Answer:

She went to the U.S. for higher studies in aeronautical engineering. She married flight instructor Jean-Pierre Harrison.

3. How did she become an astronaut? What gave her the idea that she could be an astronaut?

Answer:

She applied for NASA's space shuttle program and got hired as a research scientist at NASA. She was then selected for training as an astronaut in 1994.

4. What abilities must an astronaut have, according to the journalist?

Answer:

According to the journalist, one needs to know a lot about everything-biology, astrophysics, and aeronautical engineering to be an astronaut.

5. Describe Kalpana Chawla's first mission in space.

Answer:

Kalpana Chawla's first mission in space lasted 15 days, 16 hours and 34 minutes. She went around the earth 252 times, travelling 10.75 million kilometers. A Ukrainian and a Japanese astronaut were also among the crew members.

6. What does Kalpana Chawla say about pursuing a dream? Do you agree with her that success is possible?

Answer:

Kalpana says, “The path from dreams to success does exist. May you have the vision to find it, the courage to get onto it... Wishing you a great journey.”

Yes, I do agree with her that with vision and courage, success is possible.

7. Where was Kalpana Chawla born, and what was her early passion?

Answer:

Kalpana Chawla was born in Karnal, Haryana, India. Her early passion was flying.

8. What field of study did Kalpana Chawla pursue in the United States, and what was her significant achievement in education?

Answer:

Kalpana pursued aeronautical engineering in the United States. Her significant achievement was earning a Ph.D. in aerospace engineering.

9. In which year did Kalpana Chawla make history by becoming the first woman of Indian origin in space?

Answer:

Kalpana Chawla made history by becoming the first woman of Indian origin in space in 1997.

10. What tragic event is mentioned in the prose piece, and when did it occur?

Answer:

The tragic event mentioned is the Space Shuttle Columbia disaster, and it occurred in 2003.

11. What qualities of Kalpana Chawla are highlighted in the prose piece, making her an inspirational figure?

Answer:

The prose piece highlights Kalpana Chawla's qualities of courage, determination, and her ability to overcome challenges, making her an inspirational figure for aspiring individuals, especially women, in the field of space exploration.

4 MARK QUESTIONS

1. Describe Kalpana Chawla's educational journey and achievements before joining NASA.

Answer:

Kalpana Chawla pursued a Ph.D. in aerospace engineering in the United States. She excelled in her studies despite being one of the few women in her field, showcasing her determination and passion for aeronautics.

2. Explain the significance of Kalpana Chawla's selection as an astronaut for NASA's space program.

Answer:

Kalpana Chawla's selection as an astronaut was significant as she became the first woman of Indian origin in space. This marked a historic achievement and inspired many, especially women, to pursue careers in space exploration.

3. Discuss Kalpana Chawla's mission in 1997 and its importance in the context of space exploration.

Answer:

In 1997, Kalpana Chawla flew on the Space Shuttle Columbia, contributing to the advancement of space exploration. Her mission showcased the progress of international cooperation in space programs and highlighted India's presence in the global space community.

4. Highlight the challenges faced by Kalpana Chawla during her journey to become an astronaut and how she overcame them.

Answer:

Kalpana Chawla faced challenges as one of the few women in her field. However, her determination, dedication, and academic excellence helped her overcome these challenges, paving the way for her successful journey to become an astronaut.

5. Explain the impact of the Space Shuttle Columbia disaster on Kalpana Chawla and her fellow astronauts.

Answer:

The Space Shuttle Columbia disaster in 2003 resulted in the loss of Kalpana Chawla and her fellow astronauts' lives. It was a tragic event

that deeply affected the space community, leading to reflections on space exploration safety.

6. Reflect on the legacy of Kalpana Chawla and how she continues to inspire future generations.

Answer:

Kalpana Chawla's legacy lies in her inspirational journey, showcasing the possibilities of reaching beyond one's limits. She continues to inspire future generations to pursue careers in science, technology, engineering, and mathematics (STEM) and to dream big.

7. Discuss the role of Kalpana Chawla in breaking gender barriers in the field of space exploration.

Answer:

Kalpana Chawla played a crucial role in breaking gender barriers by excelling in a field dominated by men. Her achievements as the first woman of Indian origin in space opened doors for women aspiring to pursue careers in space exploration.

8. How did Kalpana Chawla's passion for flying lead her from a small town in India to becoming an astronaut in the United States?

Answer:

Kalpana Chawla's passion for flying motivated her to pursue higher education in aeronautical engineering in the United States. Her dedication and pursuit of excellence eventually led her to become an astronaut.

9. Explain the theme of international collaboration in the context of Kalpana Chawla's mission.

Answer:

Kalpana Chawla's mission in 1997 symbolized international collaboration in space exploration. Her participation in the Space Shuttle program reflected the cooperative efforts of nations, transcending borders for the advancement of space science.

10. How did the prose piece conclude, and what message did it convey about Kalpana Chawla's impact on space exploration?

Answer:

The prose piece concluded by reflecting on Kalpana Chawla's legacy and her impact on space exploration. It emphasized her courage, determination, and the inspiration she provides to individuals, especially women, who aspire to contribute to the field of space exploration.

GRAMMAR

1. Read the newspaper report to find the following facts about Columbia's ill-fated voyage.

1. Date and place of lift off: _____
2. Number of astronauts on board: _____
3. Number of days it stayed in space: _____
4. Number of experiments done by scientists: _____
5. Date of return journey: _____
6. Height at which it lost contact: _____

Answer:

1. Date and place of lift-off: 16 January 2003
2. Number of astronauts on board: Seven
3. Number of days it stayed in space: 15 days, 16 hours and 34 minutes
4. Number of experiments done by scientists: 80
5. Date of return journey: 1 February 2003
6. Height at which it lost contact: 200000 feet

2. Match the following:

unprecedented space tragedy	something that causes feelings of respect and wonder
certified flight instructor	having knowledge of a wide variety of subjects
space mission	nowadays, in these times
super specialisation	a set of jobs to be done in space by a group
encyclopedic knowledge	a person with the correct qualification to teach people to fly planes
awe-inspiring	a sad accident of a kind that has never happened before in space
in this age	great expertise in a limited field or a particular subject

Answer:

unprecedented space tragedy	a sad accident of a kind that has never happened before in space
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certified flight instructor	a person with the correct qualification to teach people to fly planes
space mission	a set of jobs to be done in space by a group
super specialisation	great expertise in a limited field or a particular subject
encyclopedic knowledge	having knowledge of a wide variety of subjects
awe-inspiring	something that causes feelings of respect and wonder
in this age	nowadays, in these times

3. Use these phrases in sentences of your own, after finding out their meanings.

1. broke apart
2. streaked over
3. spread across
4. lifted off
5. blast off
6. went on
7. cheered along
8. on board
9. carry on

Answer:

1. broke apart: The fire broke the house apart.
2. streaked over: The jet plane streaked over the valley this morning.
3. spread across: The disease is spread across the entire world.
4. lifted off: The helicopter made a lot of noise when it lifted off from the helipad.
5. blast off: The rocket blasted off at midnight.
6. went on: The meeting went on the whole evening.
7. cheered along: The cricketers were cheered along by the audience.
8. on board: There were 600 passengers on board.
9. carry on: She was convinced to carry on her career in singing.

4. We add 'un-' to make opposites.

For example, true — untrue.

Add 'un'— to the words below to make their opposites. Then look up the meanings of the words you have formed in the dictionary.

1. identified _____
2. controlled _____
3. attended _____
4. successful _____
5. important _____
6. educated _____

7. interesting _____

8. qualified _____

9. trained _____

10. answerable _____

Answer:

1. unidentified

2. uncontrolled

3. unattended

4. unsuccessful

5. unimportant

6. uneducated

7. uninteresting

8. unqualified

9. untrained

10. Unanswerable

5. In her message to students of her college, Kalpana Chawla said,
“May you have the vision to find the path from dreams to success...
Wishing you a great journey.”

Form pairs. Use “May you...” and “I wish you/Wishing you” to wish
your partner good luck and success in

- (i) a sports event,
- (ii) a quiz or a competition, and
- (iii) a test or examination.

Be sure to thank your partner when she/he wishes you in turn. You may also look up a telephone directory, or go to a post office, and get a list in English and Hindi of standard phrases that can be sent in greeting telegrams anywhere in India. Discuss which of these you might use, and when. Compare the English and Hindi phrases for expressing good wishes. Do you know such phrases in any other language?

Answer:

- (i) May you win the sports event.
- (ii) I wish you good luck in performing well in the quiz competition.
- (iii) Wishing you all the best for your examination.

6. Do you have a ‘dream’, or something you very much wish to do?

Write a paragraph saying what you want or wish to do. Then say (in another paragraph) how you think you can make your dream come true.

Answer:

My dream is to become a scientist and invent something useful for society and future generations. I wish I could make a change in people’s lives through that invention and make things easier or better for them so that they can live happy lives.

I think I can make my dream come true by studying strategically. I will have to make and follow a proper timetable for the same.

7. Given below are some words that are spelled differently in British and American English. Fill in the blanks accordingly.

British American

1. colour _____
2. _____ labor
3. _____ traveler
4. counsellor _____
5. centre _____
6. _____ theater
7. _____ organize
8. realise _____
9. _____ defense
10. offence _____

Answer:

British American

1. colour color
2. labour labor
3. traveller traveler
4. counsellor counselor

5. centre center

6. theatre theater

7. organize organize

8. realise realize

9. defence defense

10. offence offense

SUMMARY

"An Indian-American Woman in Space: Kalpana Chawla" from Class 6 English NCERT is a biographical prose piece that recounts the inspiring journey of Kalpana Chawla, the first woman of Indian origin in space. Here is a summary of the chapter:

The prose piece begins by introducing Kalpana Chawla, born in Karnal, Haryana, India, and traces her journey from a small town to becoming an astronaut. It highlights her passion for flying and her early education in aeronautical engineering.

Kalpana's dream of flying led her to the United States, where she pursued higher education and earned a Ph.D. in aerospace engineering. Despite facing challenges and being one of the few women in her field, Kalpana excelled in her studies and went on to work for NASA.

The narrative then describes Kalpana's selection as an astronaut for NASA's space program. She flew on the Space Shuttle Columbia in 1997, marking her historic journey as the first woman of Indian origin in space. The prose piece details the excitement and significance of her mission.

Tragically, the story takes a somber turn as it recounts the Space Shuttle Columbia disaster in 2003, where Kalpana Chawla and her fellow astronauts lost their lives during re-entry into Earth's atmosphere.

The prose piece concludes by reflecting on Kalpana Chawla's legacy, emphasizing her courage, determination, and the inspiration she continues to provide to aspiring individuals, especially women, who dream of reaching for the stars.

In summary, "An Indian-American Woman in Space: Kalpana Chawla" is a tribute to Kalpana Chawla's remarkable life, achievements, and the indelible mark she left on the field of space exploration. Her story serves as an inspiration for generations to come, showcasing the power of dreams and the pursuit of excellence.

POEM – BEAUTY

- E- Yeh Shure

1. The poet says, “Beauty is heard in ...”

Can you hear beauty? Add a sound that you think is beautiful to the sounds the poet thinks are beautiful.

The poet, Keats, said:

Heard melodies are sweet,

But those unheard are sweeter.

What do you think this means? Have you ever ‘heard’ a song in your head long after the song was sung or played?

Answer:

We do hear beautiful sounds. For instance, when a guitarist plays the guitar, when a cuckoo sings, when the raindrops fall on the ground, when a soft breeze flows, etc.

“Heard melodies are sweet,

But those unheard are sweeter.”

This means that our imagination can go beyond and be even more beautiful than reality. Heard melodies are the ones which are actually being played around. But the unheard are the ones that our mind plays in our hearts, and such sounds are sweeter and closer to our hearts.

Yes, I have heard songs in my head long after the song was sung or played. Those are my favourite songs.

2. Read the first and second stanzas of the poem again. Note the following phrases.

corn growing, people working or dancing, wind sighing, rain falling, a singer chanting

These could be written as

- corn that is growing
- people who are working or dancing

Can you rewrite the other phrases like this? Why do you think the poet uses shorter phrases?

Answer:

Here are some more examples of such short phrases: stream flowing, wind blowing, children laughing, mob shouting, etc. They can be rewritten as follows: stream that is flowing, wind that is blowing, children who are laughing, and mob that is shouting.

I think the poet uses the shorter phrases to give a musical rhythm to the poetic lines.

3. Write a paragraph about beauty. Use your own ideas along with the ideas in the poem.

Answer: “Beauty lies in the eyes of the beholder.”

The statement is true to its core. Beauty is how you perceive things. Everything in nature is beautiful. Every insect, tree, plant, human, mountain, river, rain, and soil is beautiful in its own way. It depends on the person who sees it, whether he/she considers it to be full of beauty or not.

SUMMARY

The poem "Beauty" from Class 6 English NCERT is a reflection on the varied perceptions of beauty. Here is a summary of the poem:

The poem begins by questioning the concept of beauty and explores how different people have diverse opinions on what is considered beautiful. It highlights that beauty is subjective and varies from person to person.

The speaker of the poem expresses that beauty is not confined to a specific shape, color, or size. Instead, beauty is found in various forms, whether in nature, in human diversity, or in the uniqueness of individual perspectives.

The poem emphasizes that beauty is not solely about external appearances but extends to qualities like kindness, love, and empathy. It encourages readers to appreciate the inner beauty that exists within individuals.

The speaker suggests that true beauty lies in appreciating the world around us and recognizing the beauty within ourselves. It encourages a broad understanding of beauty that goes beyond societal norms and stereotypes.

In essence, "Beauty" celebrates the diversity of perspectives on what is beautiful and encourages individuals to appreciate the multifaceted nature of beauty, both in the external world and within themselves. The poem conveys a message of acceptance, open-mindedness, and the recognition of beauty in its many forms.