

## An Interview with the Last Moonwalker

### A. Lead-in :

- Have you heard the names of Kalpana Chawla and Sunita Williams? What are they famous for? Do you like adventures?

With a partner, discuss what would be your feelings if you were selected to go on a space mission.

- Look at the title of the text. Eugene Cernan is the last man to walk on the moon. What was his dream? Was it realized?

Now, read the following part of the interview and find out if your guess was correct.

### B. The Text :

#### I

Frank Vizard : It's been 30 years since man walked on the moon. What are your thoughts on this anniversary?

Eugene Cernan : How did 30 years go by so quickly? Is it possible that it was that long ago? It was the greatest endeavour in the history of mankind. And it was something a lot of people thought couldn't be done.

When President Kennedy said in 1961 that we were going to the moon, we had a grand total of 16 minutes of space flight experience. That's one hell of a commitment. Kennedy was asking us to do the impossible. But you get the fever. Yet looking back, it sometimes seems unreal because we quit. We went to the moon. Then we came home and here

we are. We're still home. The disappointing thing is that I'm still the last moonwalker. It's a very dubious honour to be the last man who walked on the moon.

Frank Vizard : Did you think we'd stay at home so long?

Eugene Cernan : No, I didn't. We had the momentum to be on our way to Mars in a decade. At the end of Apollo 17. I said, "This is the conclusion of Apollo, but it's also the beginning of the future. Not only will we go back to the moon but we will be on our way to Mars by the turn of the century" Publicly, I gave myself 28 years for that to happen. Now if you think I am not disappointed, you're wrong. I am.

Frank Vizard : How did we lose the momentum?

Eugene Cernan : I'm not sure what brought us to this point. Apollo 13 didn't help. The commitment was to send a man to the moon and bring him back. After Apollo 13, people started to say, "We can't afford to lose a man up there." (Apollo 13 was nearly lost to an onboard fire while the spacecraft was enroute to the moon.)

Let me tell you about what we did to the generation that came after us, today's 40-years-olds. We went to the moon. We said how great it was to go to the moon. And the thinking was we'd go on to Mars. We told them to go for it. We held out a big stick with a big plum on it. Then we took it away. A lot of people in that generation now say we left them hanging out to dry.

Frank Vizard : Would you go back to the moon?

Eugene Cernan : Yes, Absolutely, Without question.

Frank Vizard : Will we ever live on the moon ?

Eugene Cernan : I lived on the moon for 75 hours. But it was like parking a car in the desert and living out of it. You need a habitat. We know enough about the basics to build in a lesser-gravity environment under hostile conditions. We can build a habitat. We know we need a vehicle like lunar rover to explore. We can work in that environment.

There are only 12 people who have ever experienced anything except zero gravity and Earth's gravity. I'd trade both of them in for the moon's one-sixth gravity. It's way ahead of zero gravity. It gives you the ability to move around in ways you can't on Earth. Zero gravity is a sort of pain in the neck. It makes certain things easier but it makes other things very difficult.

Frank Vizard : Could we have stayed on the moon a few more days and not gotten bored ?

Eugene Cernan : You bet your life ! I wasn't ready to come home after three days. But we were there longer than anyone else.

## II

Frank Vizard : Speaking of zero gravity, what are your feelings about the International Space Station ?

Eugene Cernan : The station is going to have a long-term scientific and commercial value. I call it exploiting space as opposed to exploring space. We're going somewhere we've been before.

From a manned point of view, we're totally ignoring exploring space. We're no longer a space-faring nation.

We're exploiting our conquest. As a result, it's not nearly as exciting as going to Mars.

Frank Vizard : Are we going to Mars ?

Eugene Cernan : We're going to Mars. Whether we go to the moon first, they have to figure that out. It won't be in the near future, but it will be by the next generation. The crew of the first spaceship to Mars is sitting in our elementary schools today.

We're going to find a better way to get there so we're not subject to the laws of nature. We have to develop the *propulsion technology* that will get us there in a short period of time and which will allow us to come home whenever we want. In 200 to 300 years, we will inhabit Mars.

Frank Vizard : Some people think unmanned vehicles are more than sufficient when it comes to space exploration.

Eugene Cernan : No, it's not enough, people have to go.

Frank Vizard : But why ? Is science the impetus ?

Eugene Cernan : Science, for the most part, has never been a stimulus for exploration. Scientists have always been a part of exploration. But Apollo evolved out of political international competition. There's always another reason.

Frank Vizard : So we need a nonscientific reason to go to the Red Planet ?

Eugene Cernan : Yes, And that is going to be hard to find. It may be for commercial reasons like the mining of helium 3.

We'll go to Mars, but it will be a quest for knowledge, Curiosity. We'll find answers to questions like— Is there

water on Mars ? Was there life on Mars ? Can we live there ?

Frank Vizard : Would you like to see the next president challenge us to go to Mars the way president Kennedy challenged you to go to the moon ?

Eugene Cernan : Somebody has to take the initiative. We need to challenge the entire world. It should be an international undertaking and there's no better target than Mars.

We have a responsibility to give the kids a chance. Let's give the children a chance to dream. Don't take that away from them.

### Points for discussion

- What is the meaning of the line "It's a very dubious honour"?
- What is the cause of Cernan's disappointment ?
- What was the reason which prompted the mission members to go to the moon ?
- Why was the Apollo-13 mission a failure ?
- Cernan was on the moon for 75 hours. Did he want to come back? What was his feeling?
- How is the moon's gravity different from the earth's gravity?
- What does Cernan say about the International Space Station?
- What is the difference between "exploiting" space and "exploring" space? What should we do? Give reasons for your answer.
- Which of the following do you think will be man's next target?  
Space city, Mars, Moon, Developing propulsion technology.

Read the last part of the interview to check your thinking on the last point.

<b>C. Notes and Glossary :</b>
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astronaut (n)	: a person whose job involves travelling and working in a space craft
anniversary (n)	: a date that is an exact number of years after the date of an important event
endeavour (n)	: effort/an attempt to do something, especially something new or difficult
commitment (n)	: the willingness to give your energy and time to do a job or an activity
quit (v)	: to stop doing something
disappointing (adj)	: not as good or successful as you had thought
dubious (adj)	: doubtful
momentum (n)	: motion of a moving body
en route (adv)	: on the way
plum (n)	: a soft round fruit with smooth red or purple skin
habitat	: natural home of a plant or animal
gravity (n)	: the force that attracts objects in space towards each other, and that on the earth pulls them towards the centre of the planet
hostile (adj)	: very unfriendly or aggressive and ready to fight
crew (n)	: all the people working on a ship, plane etc.
propulsion	: the act of pushing forward
impetus	: driving force, a push forward
stimulus	: that which quickens thought or feeling

- curiosity (n) : a strong desire to know about something
- initiative (n) : a new plan dealing with a particular problem or for achieving a particular purpose.

**D. Let's understand the text :**

Answer the following questions on the lesson you have read. You may refer to the text again to find the answers.

1. Suppose you were asked to describe Mr. Cernan in a few words, how would you do it?
  - a) committed, optimistic, responsible, curious
  - b) middle aged, unmarried, rich
  - c) frustrated, adamant, boastful
2. What did Cernan expect to happen after the last lunar mission ?
3. Which is the 'Red planet' and why is it called so ?
4. Why did Cernan say "I'm still the last moonwalker" ?
5. How did Cernan describe his 75 hours stay on the moon ?
6. What is said about "zero gravity" ?
7. What do you mean by "ignoring exploring space" ?
8. How will the propulsion technology help space mission ?
9. Which curiosities will be resolved by going to Mars ?

**E. Let's understand the text better**

- What does the author mean when he says "The crew of the first spaceship to Mars is sitting in our elementary schools today?"
- Why do we need a better technology to go to Mars?
- Why is a non-scientific reason necessary for space exploration?
- Cernan says "we have a responsibility to give the kids a chance to dream". How can we do that ? Comment.

**F. Let's learn some words :**

- (a) Words under A mean the opposite of those under B. Match them.

Example :

A	B
- dubious	reliable
- hostile	disinterestedness
- disappoint	friendly
- impetus	continue
- curiosity	discouragement
- quit	encourage

- (b) Here is a crossword puzzle. Find a word from the text for each of the meanings given in 1 to 10. Each meaning is numbered. Write the appropriate words in the corresponding numbers given in the box. Number 1 is done for you.

**Across :**

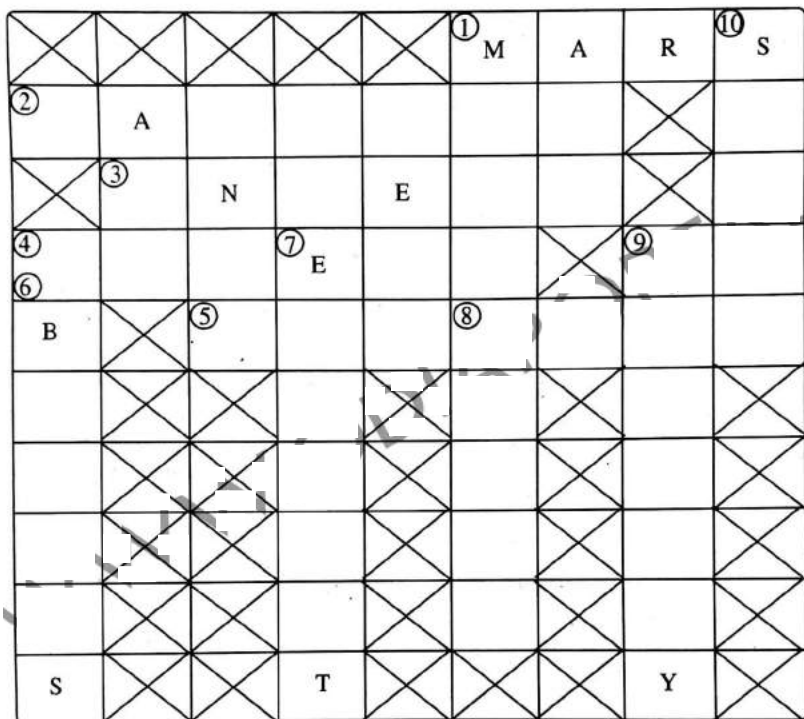
1. A red planet.
2. Natural home of a plant or animal.
3. Which is not real.
4. A large area of land that has very little water a very few plants growing on it.
5. To travel to or around an area in order to learn about it.

**Down :**

1. Doubtful
2. To use sometimes in order to gain as much from it as possible.
3. Connected with the moon.



4. The force that attracts objects in space towards each other.
5. The area outside the earth's atmosphere.



### G. Let's learn language :

#### Phrasal verbs :

- (a) When a verb is used with an adverb particle, the combination is called a phrasal verb. The meaning of a phrasal verb is often very different from the meanings of the two words taken separately. The first word is a verb and it is followed by an adverb particle (sit down).

Choose the suitable phrasal verbs and fill in the blanks with their appropriate forms :

go for, hold out, hang out, take away, figure out

1. The students couldn't \_\_\_\_\_ the new teacher.
2. The thief \_\_\_\_\_ the lady with a knife.
3. The family \_\_\_\_\_ in the forest for several days.
4. The patient was given some pills to \_\_\_\_\_ the pains.

**(b) Question Patterns :**

Just as there are different types of sentences in English, namely, statements, questions, imperatives and exclamations; there are also different question patterns.

Yes-No questions have been discussed in another lesson. The other type is

- (i) the wh-questions

**Wh-Questions :**

There are certain words used at the beginning of sentences to signal questions. These are *what*, *where*, *why*, *who*, *when*, *whose*, *whether* and *how*. Since almost all of them begin with *wh-*, the sentences which begin with these words are called wh-questions.

Read the following questions :

- i) *What* made you cry ?
- ii) *Who* closed the door ?

The italicized words in the sentences above are called question-words. In each case the word in italics is the subject of the sentence. When a question word is the subject of a sentence, it comes before the verb in the sentence.

Now read these sentences in which the question word is not the subject of the sentence.

- i) How *did* 30 years go by so quickly ?
- ii) What *did* the teacher say ?

The italicized words in the sentences above are 'helping verbs' or auxiliaries. When an auxiliary verb occurs in a wh-question, it is placed after the question word and before the subject. The main verb comes after the subject.

Question Word	Auxiliary	Subject	Main Verb
1. How	did	30 years	go by ?
2. What	did	the teacher	say ?

- Frame questions to which the following statements are answers. Use the question words given in brackets.

eg. We came by train (How)

How did you come ?

Note : Do not forget the question mark at the end of the sentence.

1. The caretaker keeps the keys. (Who)
2. We took the night train. (Which)
3. The height of my room is ten feet. (What)
4. I want to speak to the headmaster. (Who)
5. We left home around six in the morning. (When)
6. I came by plane. (How)
7. My father stays in London. (Where)
8. I didn't ring you up because there was no time. (Why)

Note: A common mistake in forming interrogative is

- i) to omit the auxiliary in the question, eg. "Which poet you like the best ?" instead of "Which poet do you like the best ?"
- ii) to put the auxiliary after the subject, eg. "What the exam was like ?" instead of "What was the exam like ?"

### ● Play time with wh-questions

Interview your partner asking at least seven wh-questions to get as much information as possible about his/her village/town. Arrange the answers into a paragraph.

Ask your partner to interview you.

### H. Let's Write :

Read the text once more. Now, sit in a group of three or four and discuss how to write a coherent paragraph on the following, taking ideas from the text.

1. Write a paragraph on the traditional Indian beliefs about the moon.

- You can discuss the following elements for organization of a good paragraph, such as
  - (i) the topic sentence
  - (ii) the development of the topic
  - (iii) connection between the sentences, and
  - (iv) the use of transitional devices.
- The central, controlling idea or theme of a paragraph is expressed by the topic sentence. This sentence is most frequently found at the beginning of a paragraph, but sometimes it can come at the end, or even in the middle of a paragraph.

You can start like this,

People all over India are familiar with a number of stories and descriptions of the moon.

- Use the following points to develop the topic.
  - (i) Treated as universal uncle.
  - (ii) Lunar eclipse is due to the swallowing of the moon by the two demons Rahu and Ketu.

(iii) A cool, beautiful, heavenly object.

(iv) The body contains a hare.

(v) In contrast what science says about it.

- Summing up : Do this by stating the significance of the traditional notions (especially) is art and literature.

- Coherence : There should be logical and smooth transition from one idea to the next. The reader must clearly recognize that one sentence logically leads to the next.

- Transitional Devices : These are words/phrases that help a writer move smoothly from one sentence to the next and show the logical relationship between sentences e.g.,

therefore, as a result, for instance, similarly, but, still, however, on the other hand, in addition, more over, later, since, first, second, next, finally etc.

These are known as *linkers* because they link the sentences.

- Now, getting familiar with the elements that go into developing a paragraph, attempt in group a paragraph in about 150/200 words on the following :

- Supposing you are selected to travel to the moon in a spacecraft. Write a paragraph on the preparations you have to make for your journey.

One way to start the paragraph may be :

It is necessary to undergo a lot of training and make special preparation before going on a journey to the moon.

