Recent Advancements in Space Exploration

In recent years, space exploration has seen remarkable advancements. Private companies like SpaceX have revolutionized space travel by developing reusable rockets, significantly reducing the cost of space missions. In 2020, SpaceX's Crew Dragon became the first privately-owned spacecraft to transport astronauts to the International Space Station (ISS).

NASA has also made significant strides, with its Perseverance rover landing on Mars in 2021. This rover is equipped with advanced scientific instruments to search for signs of ancient life and collect samples for future return to Earth. Additionally, the James Webb Space Telescope, launched in 2021, is expected to provide unprecedented insights into the formation of stars and galaxies.

Another exciting development is the Artemis program, which aims to return humans to the Moon by 2024 and establish a sustainable presence. This mission will serve as a stepping stone for future human exploration of Mars.

These advancements bring us closer to answering one of humanity's most profound questions: Are we alone in the universe? With ongoing research and missions, the possibility of discovering extraterrestrial life is becoming more plausible.

Vocabulary

Match the words to their definitions:

1. Revolutionized	a. To move people or goods from one place to another
2. Reusable	b. Devices or tools used for scientific purposes
3. Transport	c. Made significant changes to improve something
4. Instruments	d. Capable of being used again
5. Sustainable	e. Able to be maintained at a certain level
6. Plausible	f. Seeming reasonable or probable

Multiple-Choice

1. What is SpaceX known for?

- a) Developing reusable rockets
- b) Landing on Mars
- c) Building the International Space Station

2. What significant achievement did NASA's Perseverance rover accomplish?

- a) Discovering signs of ancient life on Mars
- b) Landing on the Moon
- c) Transporting astronauts to the ISS

3. What is the purpose of the James Webb Space Telescope?

- a) Studying the formation of stars and galaxies
- b) Searching for water on Mars
- c) Building a lunar base

4. What are the goals of the Artemis program?

- a) Return humans to the Moon and establish a sustainable presence
- b) Explore Jupiter's moons
- c) Search for extraterrestrial intelligence

5. Why are these advancements significant for the possibility of discovering extraterrestrial life?

- a) They provide insights into the behavior of black holes
- b) They improve communication with aliens
- c) They help in searching for signs of life on other planets

Grammar Point: Passive Voice

The passive voice is used to emphasize the action rather than the subject performing the action. It is often used in scientific and technical writing. The passive voice is formed by using the verb "to be" in the correct tense followed by the past participle of the main verb.

Active vs. Passive Voice:

- Active: NASA launched the Perseverance rover.
- Passive: The Perseverance rover was launched by NASA.

Forming the Passive Voice:

- Identify the object of the active sentence.
- Move the object to the subject position.
- Use the appropriate form of the verb "to be."
- Add the past participle of the main verb.
- Optionally, include the original subject preceded by "by."

Practice:

Change the following active sentences into passive sentences:

- SpaceX developed reusable rockets.

  _____.

- The Perseverance rover explores Mars.

  _____.

- Scientists will analyze the samples.

  _____.

- The telescope captures stunning images.

  _____.

- Engineers designed the spacecraft.

  _____.