space the and Technology about Worksheet الملف

More files for 7th Grade , Subject Information and comm , Term 1

UNIT 4 – Technology and the Space

Reading 1

Skills:

- Details
- Make inferences
- Language function
- Understand negative facts
- Insert sentences in the passage

Getting started: Did you ever dream of becoming an astronaut? Why(not)?

SUPER ROCKET

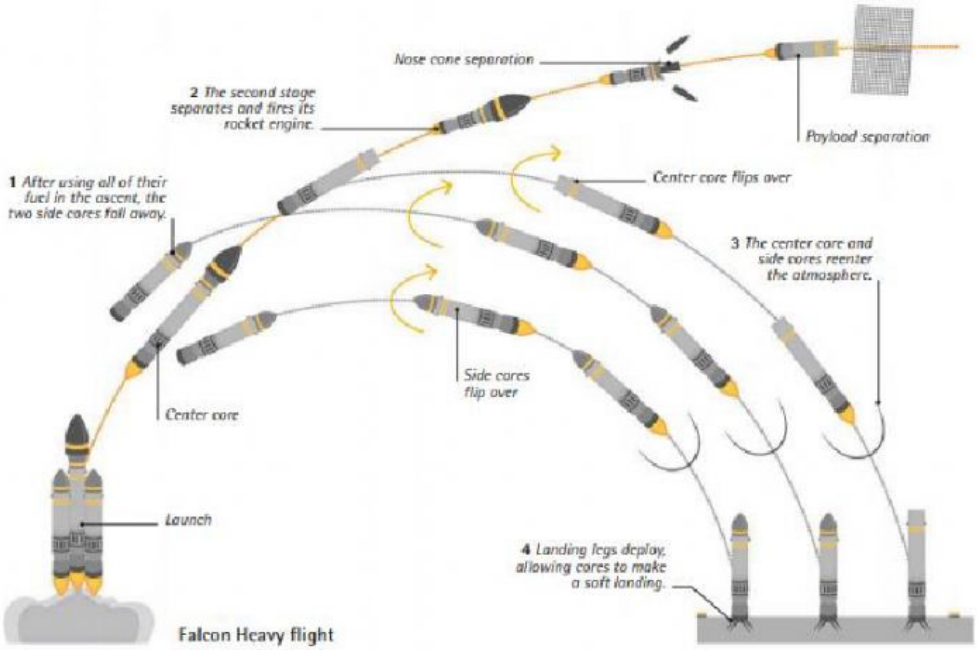
Falcon Heavy is the world's most powerful rocket. It was first launched into space on February 6, 2018 and has been launched two more times since then. Falcon Heavy is a rocket that stands 70 m tall and weighs 1,420,788 kg. Regarding its structure, the first stage has three parts, or cores, each with nine identical rocket engines, making 27 engines in all. Each core is a Falcon 9, an earlier

SpaceX rocket. The 27 first-stage engines burn a mixture of RP-1 kerosene fuel and liquid oxygen. RP-1 is the same fuel used by jet airliners. The upper stage is powered by a single Merlin 1D engine modified for vacuum operation, and the interstage, which connects the upper and lower stage for Falcon 9, is a carbon fiber aluminum core composite structure. Stage separation occurs via reusable separation pieces and a pneumatic pusher system.

Despite its name, Falcon Heavy is a light and strong rocket. The thin walls of the Falcon Heavy's three first-stage cores and second stage are made of aluminum–lithium alloy. In this case, the addition of lithium makes the metal lighter and stronger than aluminum alone. Moreover, the exterior is made of a lightweight composite material.

Built by American company SpaceX, it is designed to launch payloads (satellites or spacecraft) weighing up to 58 tons into space. When a Falcon Heavy rocket blasts off, its engines produce almost as much **thrust** as 18 jumbo jets, which is essential because the rocket needs to reach a speed of 25,000 mph (40,000 km/h) to break free of Earth's gravity. Once free of Earth, the Falcon Heavy can be used to send astronauts to the moon or perhaps to Mars.

Most rockets are used only once and break up as they fall back to Earth. Falcon Heavy is designed to be mostly reusable. For instance, its entire three cores return to Earth and land. Falcon 9 rockets have already tested this landing system carefully, and it works properly. Following several failures, the core of a Falcon 9 landed successfully after launching a satellite in December 2015, and then the first Falcon Heavy rocket was successfully launched in 2018.



[9A] Cutting costs is something likely to happen in every single field. **[9B]** The aeronautic industry is not the exception. Reusable rockets are set to become more common because they cut mission costs, and the way Falcon Heavy has been designed is a great example. **[9C]** However, there are more and more cases. An American company called Blue Origin is developing a wholly reusable rocket. **[9D]**

**Adapted from How Super Cool Tech Works. DK Publishing.*

Answer the following questions:

1. What is true about the Falcon Heavy?
   a. Some of its parts separate after being launched.
   b. Falcon Heavy has a heavy compact body.
   c. It has nine engines in total.
   d. It was built in 2018.

2. How many times has the Heavy Falcon been launched?
   a. 4
   b. 3
   c. 2
   d. 1

3. In paragraph 1, what is implied about the separation pieces of the Falcon Heavy?
   a. They connect the different engines.
   b. They contain a pneumatic system
   c. They are made of carbon fiber.
   d. They are recovered and used again.

4. Why does the author start paragraph 2 with the phrase "**Despite its name**"?
   a. To give the reader information about the strength of Falcon heavy.
   b. To explain what materials are used in the rocket.
   c. To emphasize how enormous the spacecraft is.
   d. To establish a contrast between the rocket's name and its weight.

5. The word **thrust** in paragraph 3 is closest in meaning to
   a. power
   b. confidence
   c. argument
   d. motion

6. What is stated about Falcon Heavy in paragraph 3?
   a. It was bought by SpaceX.
   b. It can reach 25,000 kph.
   c. It can carry extra space equipment.
   d. It weighs 58 tons approximately.

7. What is NOT stated about the Falcon Heavy in paragraph 4?
   a. The three main parts of the spacecraft can land on Earth.
   b. Its accurate landing system implied several tests.
   c. The majority of the rocket is used again.
   d. Its 2018 launch was unfortunate.

8. What does the picture before the final paragraph emphasize?
   a. How the different parts of the Falcon Heavy split while it rises.
   b. How the payload gets to land on earth again.
   c. How the fuel helps the nose cone separate.
   d. How a satellite carried by Falcon Heavy can be taken into space.

9. Look at the squares in paragraph 5. Where can this sentence be inserted: **In November 2015, the company successfully brought one of its rockets down to a controlled landing after a suborbital test flight.**

a. 9A
b. 9B
c. 9C
d. 9D