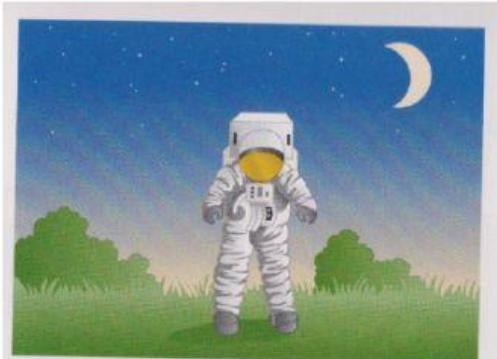
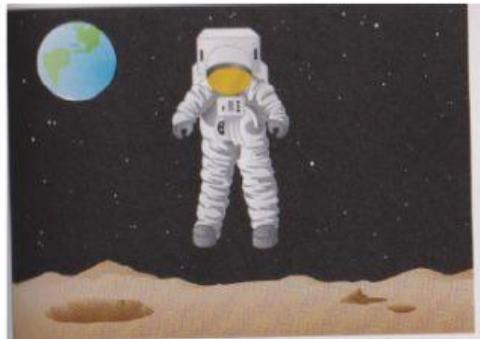


Mass and Weight



Earth's gravity pulls on the astronaut.



The moon's gravity pulls less strongly on the astronaut.

Everything is made of matter. The total amount of space something takes up is its volume. The total amount of matter in something is its mass. Mass does not change unless you add matter or take away matter. Weight is different from mass. Weight is a measure of the force of gravity on the object's mass. Weight can change depending on the strength of the force of gravity.

Look at the pictures. Answer the questions based on what you see and what you read.

1. On Earth, the astronaut's weight is _____ her weight on the Moon.
2. On the Moon, the astronauts mass is _____ her weight on Earth.
3. The astronaut's volume on Earth is _____ her volume on the Moon.
4. The astronaut has _____ amount of matter on the Earth and on the Moon.
5. The astronaut _____ made of matter.