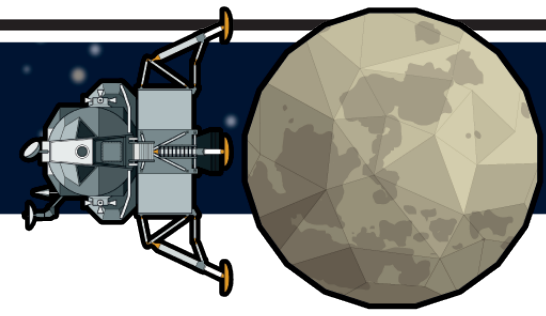


14.1 WEIGHT AND GRAVITY



You are going to focus on EVA 2. Zoom in on the bottom part of the route using the navigation tools (see Exploring the Moon in Google Earth guide).

Watch the video of astronauts on the Moon – what do you notice about the way that they walk?

What does this suggest about gravity on the Moon compared to on the Earth?

Explaining key terms:

What do we mean by “MASS”?

What do we mean by “WEIGHT”?

On the Earth, a mass of 1kg has a weight of 10N. Using this information, fill in the table below to compare the weights of certain moon related items on the Earth, and on the Moon.

Remember: On the Moon, things weigh 1/6 what they weigh on the Earth.

Item (and mass in kg)	Weight on Earth in Newtons	Weight on the Moon
Lunar Roving Vehicle (210kg)		
All the rocks brought back by Apollo missions (318kg)		
Apollo 11 landing mass (4932kg)		
Golf ball hit during Apollo 14 (0.045kg)		

During Apollo 14, astronaut Alan Shepard used a makeshift golf club to hit a golf ball on the Moon. Assuming he hit it with the same force, and at the same angle on the Earth, how would the time it took for the ball to hit the ground compare?

Explain your answer – you may want to draw a diagram to help!
