# LUNAR LIFT OFF





NATIONAL ACE ACADEMY

### INTRODUCTION

In this activity you are going:

To recap what is meant by weight and mass

To analyse the motion of the Ascent stage as it left the surface of the Moon

To apply understanding of speed, distance, time and acceleration to explain what is happening during lift off

Science & Technology
Facilities Council

## WHAT IS MASS?

A measure of the amount of 'stuff' an object has

Measured in kg

Mass is constant wherever you are



### WHAT IS WEIGHT?

The force you exert on a surface due to gravity pulling you down

Measured in Newtons (N)

Depends on the strength of gravity at your location



### WHAT IS WEIGHT?

How do you think your mass on Earth compares to your mass on the Moon?

The Moon's gravity is 1/6 as strong at the surface than at the surface of the Earth. How do you think your weight on the Moon would compare to your weight on the Earth?

Science & Technology
Facilities Council