



SCIENCE

CHAPTER 8-MOTION, FORCES AND DESIGN PROCESS

LESSON 1- CHANGING MOTION-PART 2



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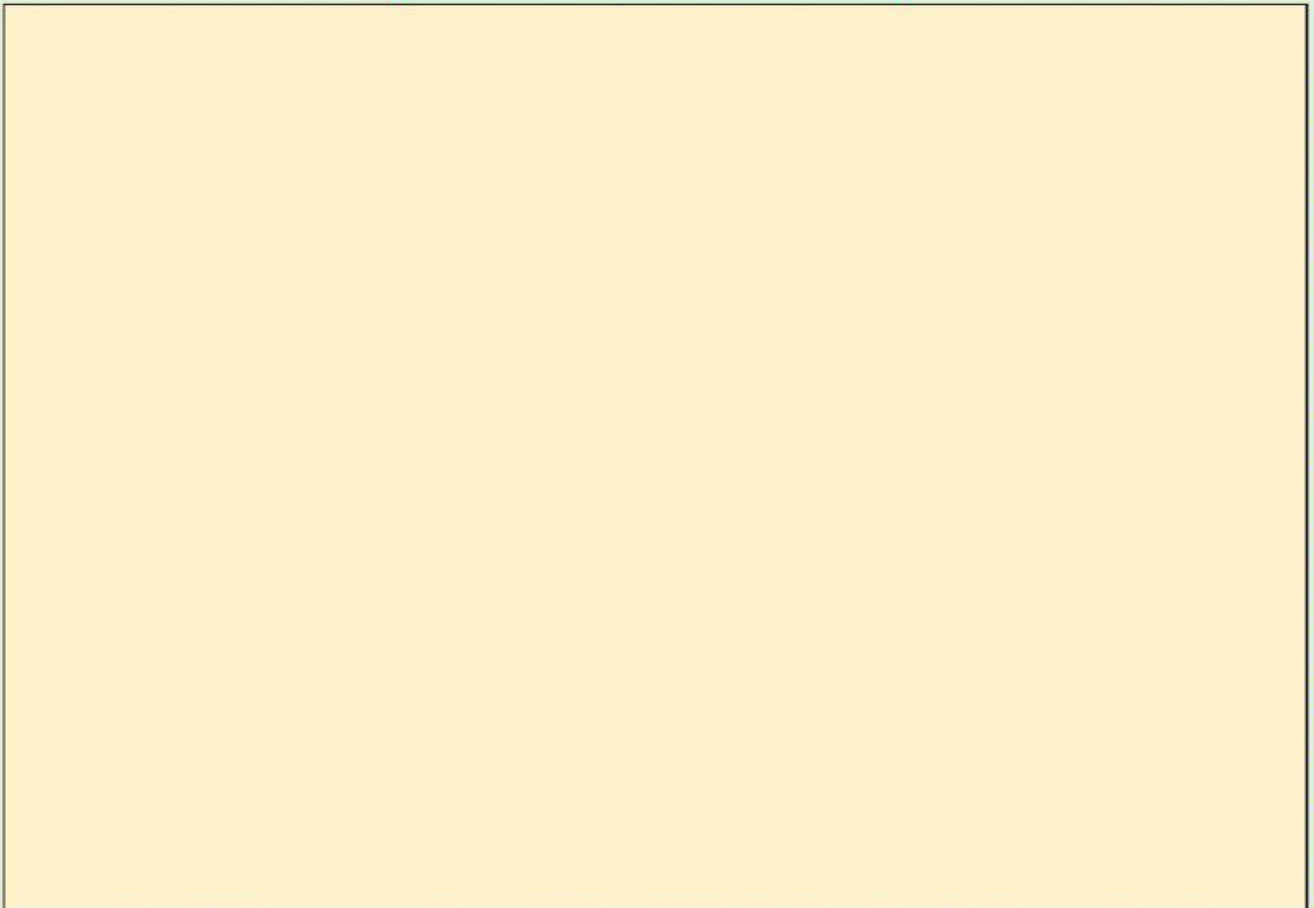
GRAVITY

It is a pulling force between two objects.

The pull of gravity depends on two things→

1. It is the amount of matter, or material, in the objects.
 2. It is the distance between the objects.
- ❖ An **object's weight** is a measure of the pull of gravity on it.
 - ❖ Scientists measure forces in SI units called **newtons (N)**

WATCH VIDEO ABOUT GRAVITY



PRACTICE QUESTIONS:

Mars is a planet that is smaller than Earth. How would the pull of gravity be different on Mars?

TYPE YOUR ANSWER

ACCELERATION

It is any change in speed or direction of an object.

Increasing Force Increases Acceleration



Increasing Mass Decreases Acceleration



PRACTICE QUESTIONS:

Bowling balls and soccer balls are about the same size. Why is a bowling ball harder to throw?

TYPE YOUR
ANSWER

LAB BASED QUESTIONS



CLICK ON
YELLOW ICON
TO OPEN
VIRTUAL LAB
ABOUT
ACCELERATION

STEP 1: CLICK ON ACCELERATION

Forces and Motion: Basics



Net Force



Motion



Friction



Acceleration

STEP 2: SELECT MASS, VALUES AND ACCELERATION

☒ Forces 

☐ Sum of Forces

☒ Values

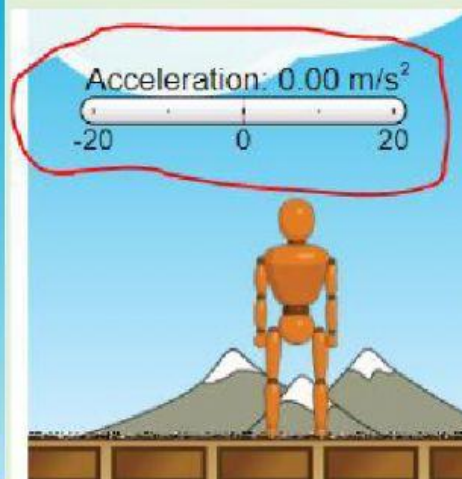
☒ Masses

☐ Speed 

☒ Acceleration 

Friction

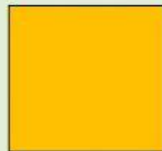
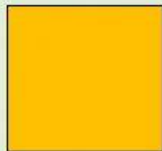
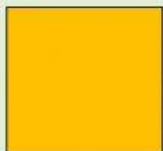
None  Lots



TICK THE CORRECT ANSWER

WHICH ONE HAS THE HIGHEST ACCELERATION?

FORCE=500 NEWTONS

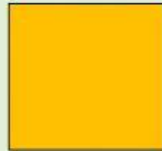


WHY?

TICK THE CORRECT ANSWER

WHICH ONE HAS THE LOWEST ACCELERATION?

FORCE=500 NEWTONS



WHY?