

"G" Acceleration

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Objectives

Identify $g = -9.8 \text{ m/s/s}$ or m/s^2

Understand the characteristics of objects in free fall...motion, velocity, distance fallen at any time



Gravitational Acceleration

gravity makes things speed upaccelerate.

so causes falling objects to change velocity!

constant for all objects (on Earth's surfacedisregarding air resistance.)

$g = -9.8 \text{ m/s/s}$ or m/s^2



Free Fall: How Fast

$$\Delta v = a \cdot t$$

$$a = \frac{\Delta v}{t}$$

Free Fall: Distance Fallen

$$d = \frac{1}{2} a \cdot t^2$$

Free Fall Table

Time	Velocity ($\frac{\text{m}}{\text{s}}$)	Distance (m)
0	0	0
1	-10	5
2	-20	20
3	-30	45
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9	-90	405

Assignments . . .



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Attachments

IP Ch2D4a Acc.IP

IP Ch2D4b Acc.IP

IP Ch2D4c Acc.IP