

PHYSICS DAY TEN!

Get Out Moving On Down Labs.....

Which factor out of everyone the class tested do you think affects toy cars rolling down ramps the most?

Surface type, mass distribution, wheel size, shape, etc...

Be prepared to share/show results, and explain validity concerns:

Share “answers” to Science Sleuths Day At The Races.

Observe 4 moving objects outside, however you want...

***Smooth, inconsistent >>> change speed, direction
Forward/backwards,
Slow, crawling, fast***

Answer: What is motion?

Change in position over time...

What does it mean to measure motion? How is it done?

***We measure the direction, speed, consistency
(acceleration), jerk, force, momentum***

How can you visually represent moving objects?

***Little lines,
Arrows -- > length of lines is speed, arrow is direction***

What is
SPEED, *Speed = change in distance over change in time*

AVERAGE SPEED, *total D over total T, we don't care about what went on in between...*

VELOCITY,
*Speed with direction, can be positive or negative,
Change in displacement over change in time*

DISTANCE, *start to finish, point to point, along a string,
always positive... note, we don't use this much.*

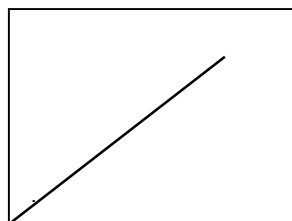
DISPLACEMENT (*position*) *from start how far away, and in
what direction... can be positive or negative...*

What is a Distance Time Table?
shows total distance from start (or displacement
EXAMPLE)

X	Y
T	D
0	0
1	1
3	3
4	4

Distance Time Graph:

*Usually it is really a displacement
time graph. Time is the x, Dis is the y. So change in
Dis/change in time is change in y over change in x, rise
over run.... Slope is the same as speed/velocity!*



DO: Motion I sheet.....

QUIZ on Fri Sep 17: Properties, measurements,
standards/scales, conversions, parts of a good experiment.