12/15	Acceleration	#7

Agenda

- entrance task

erod

Prepare a note card for your test

Use the notecard to study tonight. If you need to use the notecard on the test your maximum score will be a B+

Topics

- Know your symbols
-Speed equation
-Graphing Rules
-Distance and position graphs.

Learning Target: I can demonstrate and describe the difference between constant velocity and acceleration

12/15 **Acceleration** #7

Agenda

entrance task

erod

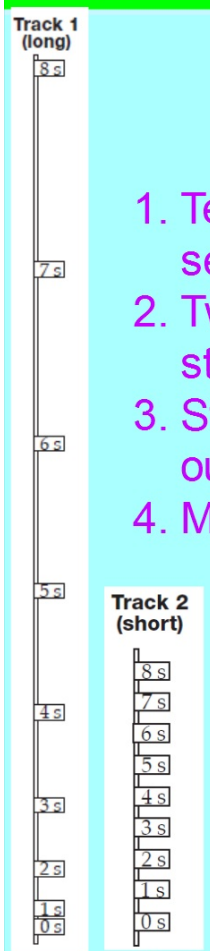
In your journal write what you know about constant speed and acceleration

Use the example of the Iditerod to help you explain.

Figure 1

Learning Target: I can demonstrate and describe the difference between constant velocity and acceleration

12/15 Acceleration #7



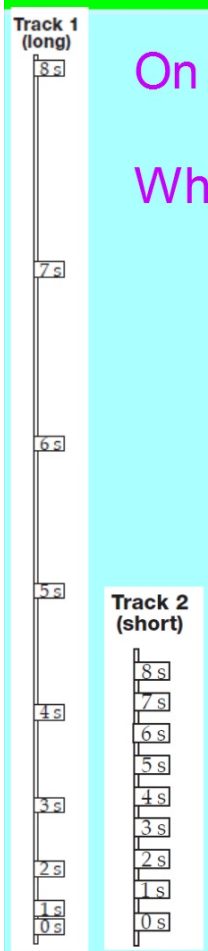
Acceleration Challenge Rules

1. Teacher is the timer and will call out ZERO and call out seconds as the elapse
2. Two students will walk beside the track WITHOUT standing on it.
3. Students need to be at the number by the time I call out.
4. Motion should be smooth and continuous.

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

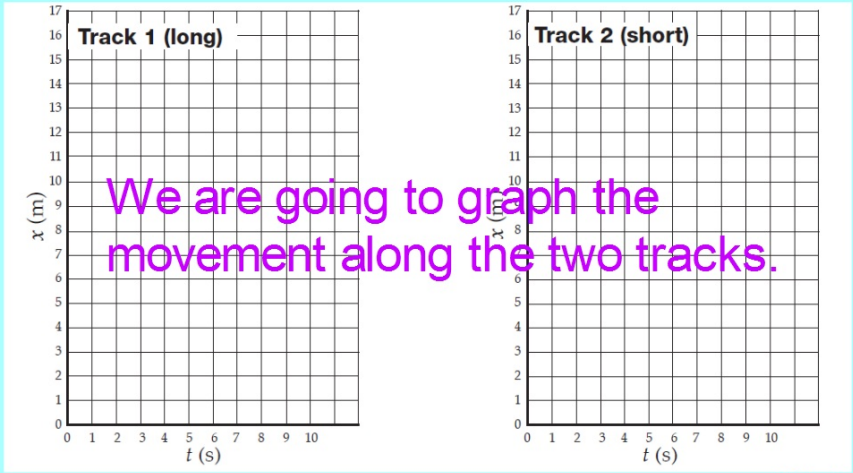
Learning Target: I can demonstrate and describe the difference between constant velocity and acceleration

12/15 Acceleration #7



On which track was it easier to hit the numbered flags?

Why was it easier to stay on the tracks of that track?



We are going to graph the movement along the two tracks.

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

Learning Target: I can demonstrate and describe the difference between constant velocity and acceleration

12/15 **Acceleration** **#7**

When physicists think about how fast an object is moving they study how far it moves in a length of time (speed) and *the direction it travels.* Speed and direction together is velocity

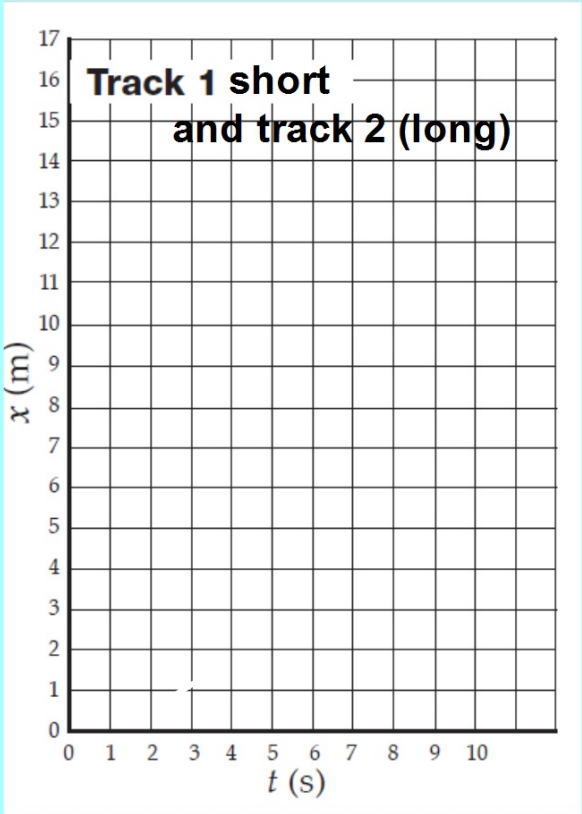
We calculate velocity by dividing the change in position by change in time

This is for your information only in our work we will use the terms *speed* and *velocity* interchangeably.

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

Learning Target: I can demonstrate and describe the difference between constant velocity and acceleration

12/15 Acceleration #7



Track 1

t (s)	x (m)
0	0
1	0.5
2	1.0
3	1.5
4	2.0
5	2.5
6	3.0
7	3.5
8	4.0

Track 2

t (s)	x (m)
0	0
1	0.25
2	1.0
3	2.25
4	4.0
5	6.25
6	9.0
7	12.25
8	16.0

Track 1 _____

track 2 .....

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

Learning Target: I can demonstrate and describe the difference between constant velocity and acceleration

12/15 Acceleration #7

Acceleration (a) is a change in speed (velocity) per unit of time.

If there is no change in speed per unit of time then the object is moving at a constant speed.

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

Figure 1

(p. 165 describes this well)

Learning Target: I can demonstrate and describe the difference between constant velocity and acceleration