Nuessler – Science 10 Name: _____ Date: _____

Physics Learning Targets *Ch. 9 - Velocity*

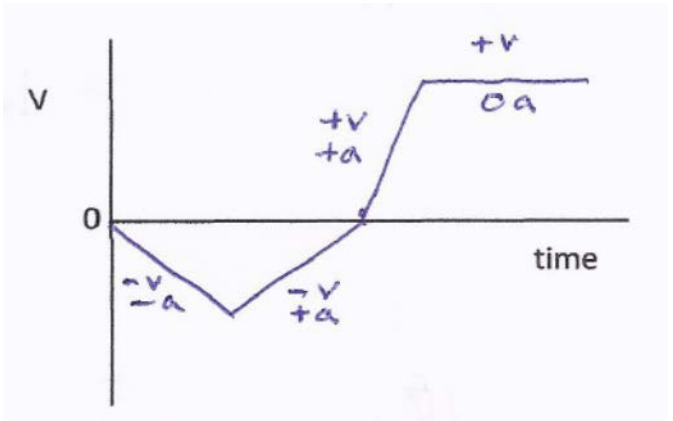
Learning Target *I can explain the relationship between velocity, time interval and acceleration.*	**My Understanding…**			
	Just beginning	**Minimal (I've got work to do)**	**Almost there**	**I've got it!**
1. I can explain acceleration and give examples of positive, negative and zero acceleration and I understand velocity-time graphs.				
2. I can calculate change in velocity, initial velocity, final velocity, time interval or acceleration using the formula $a = \Delta v / \Delta t$				

Vocabulary

Acceleration	**Change in velocity**
Positive acceleration	**Negative acceleration**
deceleration	**Zero acceleration**

Answers for Pretest – Don't peek!

1. +1.5 m/s^2 2. – 12.5 m/s^2 3.



4. 5 m/s [N] object speeds up while moving north
5. + 6 m/s object slows down while moving in positive direction
6. – 14 m/s object speeds up going west
7. 0 m/s object slows down while moving south and comes to a stop
8. 0 m/s object maintains a constant velocity while moving east
9. +320 m/s^2
10. 4 s
11. 64 m/s [E]
12. + 5.4 m/s or 5.4 m/s [up]

13a. + 8 m/s or 8 m/s [N] b. +2.7 m/s^2 or 2.7 m/s^2 [N]

c. v = + 8 m/s or 8 m/s [N] a = 0 m/s d. – 8 m/s or 8 m/s [S]

e. – 4 m/s^2 or 4 m/s^2 [S] f. – 4 m/s^2 or 4 m/s^2 [S]

g. object at rest begins to speed up while moving north for 3 s. At 3 s the object stops accelerating and maintains a constant speed of 8 m/s [N]. At 5 s the object begins to slow down while moving north and then stops at 7 s. The object then moves south for 2 s.

14. a) speeding up b) slowing down c) slowing down d) speeding up