GRAY

COURSE: 8th Grade ADV & GEN Science	TEACHER: Bette Cobb	PERIODS: 5

	OBJECTIVES	ACTIVITIES	MATERIALS	HOMEWORK	ASSESSMENT	STANDARDS
TUES 2-9	Describe the speed of an object based on graphical information. Identify the causes of friction. Describe when friction is helpful and when it is harmful. Describe how to increase or decrease friction. Describe the acceleration of an object based on graphical information. Calculate speed of an object for a specific time interval shown on a graph. Define and describe acceleration. Calculate acceleration.	**GEN BR:** Complete speed calculations. **ADV BR:** Complete distance-time graph questions. **Students will:** **GEN:** Discuss Speed & Velocity Graph notes - highlight different slopes to explain what is happening to the object's speed; complete Distance-Time Graph Practice; discuss Friction - what causes it, how it can be helpful or harmful, & how to increase it or decrease it; complete Friction Lab; complete Distance-Time Graph Schoology assignment. **ADV:** Complete Checkpoint 5.3; complete LTF Position Time Graphs activity; complete Acceleration guided notes & discuss Unit 5 notes pp.6-7; discuss Acceleration Graph Notes page - highlight different slopes to show what is happening to an object's acceleration; watch Veritasium video - Can You Perceive Acceleration?; complete Acceleration Word Problems.	Speed & Velocity Graph notes page Distance-Time Graph practice Friction Lab Distance-Time Graph Schoology assignment E3 Checkpoint 5.3 LTF Position Time Graphs activity Acceleration Guided notes E3 Unit 5 Notes Acceleration Word Problems	**Finish any unfinished classwork** **GEN - Study for Vocab Quiz**	Lab; Schoology assignment; Checkpoint; LTF activity	ACOS: 8. Use Newton's first law to demonstrate & explain that an object is either at rest or moves at a constant velocity unless acted upon by an external force. 9. Use Newton's second law to demonstrate & explain how changes in an object's motion depend on the sum of the external forces on the object & the mass of the object. 12. Construct an argument from evidence explaining that fields exist between objects exerting forces on each other even when the objects are not in contact.

THUR 2-11	Review Forces & Motion. Describe the difference between mass & weight. Describe gravity and its effect on mass and weight. Calculate weight using SI units. Differentiate between free fall and terminal velocity. Calculate the speed of a falling object.	**GEN BR:** Complete friction questions. **ADV BR:** Complete acceleration calculations. **Students will:** **GEN:** Complete Ch.2 Vocabulary Quiz; complete Forces & Motion Task Cards #1-9; complete Net Forces Maze activity; complete Study Guide for test. **ADV:** Ask question - What is the difference between mass & weight?; watch Veritasium video - Difference Between Mass & Weight; discuss Unit 5 notes pp.11-12 - gravity, weight, noncontact force, weight vs. mass, acceleration due to gravity, free fall, terminal velocity; complete Weight, Mass, & Gravity guided notes; watch Veritasium video - Misconceptions about Falling Objects; watch Usain Bolt vs. Gravity; watch video - NASA Feather vs. Hammer; complete Gravitational Gauntlet; complete Unit 5 Note Interaction p.12; complete Checkpoint 5.5.	Ch.2 Vocabulary Quiz Forces & Motion Task Cards Net Force Maze Motion & Speed Study Guide Weight, Mass, & Gravity Guided Notes Veritasium video - Difference Between Mass & Weight & Misconceptions About Falling Objects NASA video - Feather vs. Hammer Minute Physics video - Usain Bolt vs. Gravity Gravitational Gauntlet Unit 5 Note Interaction p.12 Checkpoint 5.5	**Finish any unfinished classwork** **GEN - Study for Unit Test next week**	Quiz; Checkpoint; participation	ACOS: 8. Use Newton's first law to demonstrate & explain that an object is either at rest or moves at a constant velocity unless acted upon by an external force. 9. Use Newton's second law to demonstrate & explain how changes in an object's motion depend on the sum of the external forces on the object & the mass of the object. 12. Construct an argument from evidence explaining that fields exist between objects exerting forces on each other even when the objects are not in contact.