# WEEK OF January 8th-12th , 2024

| COURSE: 8th Grade Science | TEACHER: Turner | PERIODS: 1, 2,3,4,6 | | | | |
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| | OBJECTIVES | ACTIVITIES | MATERIALS | HOMEWORK | ASSESSMENT | STANDARDS |
| MON | Describe how to know if motion has occurred.<br><br>Describe reference points and how they are used in describing motion.<br><br>Identify factors that determine an object's speed.<br><br>Calculate the speed of an object and identify the units of speed.<br><br>Differentiate between speed and velocity.<br><br>Interpret and analyze information about the speed of an object on a distance-time graph. | **GEN BR**: Weight & gravity questions<br>**ADV BR:** Displacement/Distance and Speed questions<br>**Students will:**<br>**GEN:** Complete & discuss Motion & Speed Guided notes; complete Speed Practice Problems; draw a 3-pane comic strip showing motion of an object.<br>**ADV:** Complete Checkpoint 5.1; complete Position vs. Time Graphs notes on pp.4-5 of Unit 5 notes; discuss & annotate Speed & Velocity Graph notes page; discuss the difference between speed & velocity; complete note interaction p.5. | Motion & Speed Guided notes<br><br>Speed Practice Problems<br><br>3-pane comic strip<br><br>E3/A+ Checkpoint 5.1<br><br>E3/A+ Unit 5 Notes<br><br>Speed & Velocity Graph | Finish any unfinished classwork | Participation; Checkpoint 5.1 | ACOS:<br><br>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.<br><br>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.<br><br>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. |

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| TUES | Measure the distance and time an object travels and calculate its speed.<br><br>Interpret and analyze information about the speed of an object on a distance-time graph. | **GEN BR**: Speed questions<br>**ADV BR:** Speed questions<br>**Students will:**<br>**GEN:** Complete Speed Lab.<br>**ADV:** Complete Checkpoint 5.2; complete LTF Speed Lab using constant velocity cars; review slope & line of best fit. | Speed Lab<br><br>E3/A+ Checkpoint 5.2<br><br>LTF Speed Lab | Finish any unfinished classwork | Participation; lab; Checkpoint | ACOS:<br><br>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.<br><br>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.<br><br>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. |
| WED | Identify factors that determine an object's speed.<br><br>Calculate the speed of an object and identify the units of speed.<br><br>Differentiate between speed and velocity.<br><br>Interpret and analyze information about the speed of an object on a distance-time graph.<br><br>. | **GEN BR**: Speed questions<br>**ADV BR:** Velocity questions<br>**Students will:**<br>**GEN:** Discuss & annotate Speed & Velocity Graph notes page; complete Distance-Time Graphs Activity; complete Math Skills-Solve for Average Speed; complete Content Practice B-Speed & Velocity.<br>**ADV:** Complete LTF Position-Time Graphs activity; discuss Unit 5 notes pp.6-7: acceleration; discuss & annotate Acceleration Graph notes pg; watch | Speed & Velocity Graph<br><br>Distance-Time Graphs Activity<br><br>Math Skills-Solve for Average Speed<br><br>Content Practice B-Speed & Velocity<br><br>LTF Position-Time Graphs<br><br>E3/A+ Unit 5 Notes<br><br>Acceleration Graph<br><br>NBC Learn video - Science of Football | Finish any unfinished classwork | Participation | ACOS:<br><br>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.<br><br>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.<br><br>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. |

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| | | NBC Learn video - Science of Football. | | | | |
| THURS | Define and describe friction.<br><br>Describe how friction affects motion.<br><br>Differentiate between speed and acceleration graphs.<br><br>Utilize speed and acceleration graphs to describe the speed and motion of an object.<br><br>Differentiate between mass and weight.<br><br>Describe how gravity affects mass.<br><br>Identify misconceptions about gravity and falling objects. | **GEN BR**: Speed & velocity questions<br>**ADV BR:** Acceleration questions<br>**Students will:**<br>**GEN:** Describe friction - define, how it affects motion, & when it is helpful/harmful; complete Friction Lab.<br>**ADV:** Complete Checkpoint 5.3; complete Math Skills-Acceleration ; complete Acceleration Word Problems; complete LTF Graph Matching Activity; watch Veritasium video - Difference between Mass & Weight. | Friction notes<br>Friction Lab<br>E3/A+ Checkpoint 5.3<br>Math Skills-Acceleration<br>Acceleration Word Problems<br>LTF Graph Matching Activity<br>Veritasium video - Difference between Mass & Weight | Finish any unfinished classwork | Participation; lab; Checkpoint | ACOS:<br><br>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.<br><br>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.<br><br>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. |
| FRI | Demonstrate knowledge of Force & Motion vocabulary.<br><br>Review Forces & Motion.<br><br>Differentiate between mass and weight.<br><br>Describe how gravity affects mass.<br><br>Identify misconceptions about gravity and falling objects.<br><br>Calculate weight in Newtons. | **GEN BR**: Friction questions<br>**ADV BR:** Acceleration questions<br>**Students will:**<br>**GEN:** Complete Vocabulary quiz; complete Forces & Motion Task Cards #1-19; complete Forces & Motion Study Guide.<br>**ADV:** Discuss Unit 5 notes pp.11-12 - gravity, noncontact force, weight vs mass; complete Gravitational | Vocabulary quiz<br>Forces & Motion Task Cards<br>Forces & Motion Study Guide<br>E3/A+ Unit 5 Notes<br>Gravitational Gauntlet<br>NASA-Feather & Hammer video<br>Veritasium video- Misconceptions of Falling | Finish any unfinished classwork | Participation; quiz | ACOS:<br><br>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.<br><br>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.<br><br>12. Construct an argument from evidence explaining that fields exist between objects |

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| | | Gauntlet; demonstrate acceleration due to gravity; watch NASA-Feather & Hammer video; watch Veritasium video - Misconceptions of Falling Objects. | Objects | | | exerting forces on each other even when the objects are not in contact. |