WEEK OF January 27th-31st, 2025

| COURSE: 8th Grade ADV Science /Gen | | TEACHER: Turner PER | | IODS: 1, 3, 4, 5, 6 | | |
|------------------------------------|---|--|---|--|------------------------------|--|
| | OBJECTIVES | ACTIVITIES | MATERIALS | HOMEWORK | ASSESSMENT | STANDARDS |
| MON | Define acceleration and identify the units of measurement Calculate acceleration of an object. Describe force occurs when electric current flows through a wire. Determine what causes a material to be magnetic. Differentiate between electric & magnetic forces. Describe an electromagnet & how it used. | GEN BR: Review questions ADV BR: Checkpoint 5.6 Students will: GEN: Complete Acceleration Guided Notes & PPT; annotate Acceleration Graph Notes; complete Math Skills (back of notes): Solve for Acceleration ADV: Discuss Unit 5 Notes pp.13-14 - electric force, electromagnets; manipulate PhET simulation - John Travoltage; read Electromagnets article & answer questions; watch Science Buddies video - How Does an Electromagnet | Acceleration Guided Notes & PPT Acceleration Graph Notes page E3/A+ Unit 5 notes E3/A+ Checkpoint 5.7 PhET simulation - John Travoltage Electromagnets article Science Buddies - How an Electromagnet Works video | Finish any unfinished classwork Advanced: Study for Unit Test Tuesday | Participation; Checkpoint | 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. 10. Uaw Newton's third law to design a model to demonstrate and explain the resulting motion of two colliding objects. 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. |

| TUES | Demonstrate organizational skills. Calculate the acceleration of an object. Create an electromagnet out of provided supplies. Use supplies to increase the strength of the electromagnet. | GEN BR: 1st Law questions ADV BR: Electric & magnetic questions Students will: GEN: Complete Force & Motion NB test; complete Acceleration Practice Problems ADV: Checkpoint 5.7; discuss Unit 5 Notes - p.15 Electromagnetism; complete Whose Field Line is it Anyway? lab. | Force & Motion NB Test Acceleration Practice Problems E3/A+ Unit 5 Notes E3/A+ Checkpoint 5.7 Whose Field Line is it Anyway? lab | Finish any unfinished classwork | Participation; NB Test; lab | 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. 10. Uaw Newton's third law to design a model to demonstrate and explain the resulting motion of two colliding objects. 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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| WED | Define Newton's 1st law of motion. Demonstrate Newton's 1st law of motion. Define Newton's 2nd law of motion. Demonstrate Newton's 2nd law of motion. Calculate force, mass, or acceleration using 2nd law formula. | GEN BR: 1st law questions ADV BR: Electromagnet questions Students will: GEN: Newton's 2nd law guided notes & PPT NBC Learn Science of Golf - Newton's 1st & 2nd law Acceleration Practice Problems ADV: Complete Checkpoint 5.8; discuss Unit 5 Notes pp.15-16 - Newton's 1st law; watch NBC Learn Science of Hockey | Newton's 1st law guided note & PPT NBC Learn - Science of Hockey video E3/A+ Unit 5 Notes NBC Learn Science of Hockey - Newton's 1st Law Kesler stations - 1st law lab. | Finish any unfinished classwork | Participation; lab; checkpoint | 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. 10. Uaw Newton's third law to design a model to demonstrate and explain the resulting motion of two colliding objects. 12. Construct an argument from evidence explaining that fields |

A day or two behind: Catching up from last week's snow days...

| | | - Newton's 1st Law; begin Kesler stations - 1st law lab. | | | | exist between objects exerting forces on each other even when the objects are not in contact |
|-----------------|---|--|--|---------------------------------------|--------------------|--|
| T H U R S | Define Newton's 1st law of motion. Demonstrate Newton's 1st law of motion. Define Newton's 2nd law of motion. Demonstrate Newton's 2nd law of motion. Calculate force, mass, or acceleration using 2nd law formula. | GEN BR: 2nd law questions ADV BR: 1st law questions Students will: GEN: Complete Newton's 2nd law guided notes & PPT; watch NBC Learn Science of Golf - Newton's 1st & 2nd law; observe demonstration of Newton's 2nd law; complete Acceleration Practice Problems. ADV: Finish Kesler Stations - 1st law lab; discuss Unit 5 notes p.16 - Newton's 2nd law; watch NBC Learn Science of Golf - Newton's 1st & 2nd Law video. | Newton's 2nd law guided notes & PPT NBC Learn Science of Golf - Newton's 1st & 2nd law Acceleration Practice Problems Kesler stations - 1st law lab E3/A+ Unit 5 Notes NBC Learn Science of Golf - Newton's 1st & 2nd law | Finish any unfinished classwork | Participation; lab | 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. 10. Uaw Newton's third law to design a model to demonstrate and explain the resulting motion of two colliding objects. 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. |
| F R I | Define Newton's 2nd law of motion. Demonstrate Newton's 2nd law of motion. Calculate force, mass, or acceleration using 2nd law formula. Define Newton's 3rd law of motion. Demonstrate Newton's 3rd law of motion. | GEN BR: 3rd law questions ADV BR: 1st & 2nd law questions Students will: GEN: Complete Newton's 3rd law guided notes & PPT; discuss Law of Conservation of Momentum; complete Momentum Practice Problems. ADV: Complete Kesler Stations - 2nd Law lab; | Newton's 3rd law guided notes & PPT Momentum Practice Problems Kesler Stations - 2nd law lab Acceleration Practice Problems | Finish any unfinished classwork | Participation; lab | 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. 10. Uaw Newton's third law to design a model to demonstrate and explain |

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| | complete Acceleration Practice Problems. | | the resulting motion of two colliding objects. 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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