EMERGENCY CLOSING LEARNING PLAN

PHYSICAL SCIENCE

TEXTBOOK LOGIN INFORMATION

RESOURCES	ACTIVITIES TO CONSIDER
Notebook notes https://study.com/academy/lesson/how-to-design-an-experiment-lesson-for-kids.html	**Day 1**: Pretend you own a landscaping company and you have the contract to maintain your school's athletic fields. You have an organic fertilizer available, but you don't know whether it will help the grass grow. *Write a couple of sentences* in which you describe how you would test whether the fertilizer would improve the grass on the athletic fields. Address the following questions: What is your independent variable? What is your dependent variable? How will you measure your dependent variable?
	Day 2: *Answer the following questions*: For your grass experiment, what is your hypothesis? (Write as an "if...then…" statement.) How could you set up a control? Why is a control important?
	Day 3: *Answer the following questions*: For your grass experiment, what do you need to keep constant? Other than the appearance of the fields, what factors will influence your decision about whether to use the fertilizer?
Periodic table https://ptable.com/	**Day 4:** Using a Periodic Table, *determine the number of protons, neutrons, and electrons* for each of the following atoms: Potassium-39, Silicon-28, Neon-20, Lead-207 (the numbers indicate the total atomic mass)
	Day 5: Using a Periodic Table, *draw a Bohr diagram* of each of the following atoms, with number of protons and neutrons in the nucleus, and the number of electrons in each energy level indicated: Lithium-7, Carbon-12, Oxygen-16, Neon-20
Notebook https://sciencing.com/similarities-differences-between-ionic-covalent-	**Day 6:** *Draw a Venn diagram* in which you compare and contrast ionic and covalent bonds.

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Notes https://www.dublin.k12.ca.us/cms/lib5/CA01001424/Centricity/Domain/324/Matter%20and%20Phase%20Changes%202.pdf	**Day 7:** Assume you have a cube of ice that you place into a small pan on a hot stove. *Draw and describe* the changes in the cube of ice as it goes from a solid to a liquid to a gas. Be sure to consider **what happens to the water molecules** as heat is added.
Notes https://www.renewableresourcescoalition.org/nuclear-energy-pros-cons/	**Day 8:** Pretend you own a company that is building a nuclear power plant in your hometown but citizens are concerned about potential dangers. *Write a short letter to the editor* (a single paragraph) in which you acknowledge **specific** hazards but also identify **specific** benefits nuclear energy has over coal-powered power plants.
Notebook Calculator https://www.desmos.com/fourfunction https://study.com/academy/lesson/measuring-force-lesson-for-kids.html	**Day 9**: Using the formula Speed=Distance/Time, *solve* each of the following problems: 1. An airplane flies with a constant speed of 800 kilometers per hour. How far can it travel in 3.5 hours? 2. A train travels 500 kilometers in 15 hours. How fast was it going? 3. If a bird flies at a constant 3 meters per second, how far can the bird travel in one minute?
	Day 10: Using equation: Force=Mass x Acceleration, solve each of the following problems. (Use kilograms for mass, Newtons for force, and meters/second^2 for acceleration.) 1. How much force is needed to accelerate a 66 kg skier at 2 m/s^2? 2. A force of 250 N is applied to an object that accelerates at a rate of 5 m/s^2. What is the mass of the object? 3. What is the acceleration of a 50 kg object pushed with a force of 500 newtons?