STEM Fall 2026: Week 6

Complete before the class on Mon, Oct 19th

STEM Assembly				
- Supplies: Pencil, folder with paper, scientific calculator				2 points
- Books: LifePac Science, CAP Robotics, Mathematics Book				
Skim through the link with quotes on God and the Bible by Isaac Newton. Select your favorite quote and be prepared to explain in class why you selected this quote.				3 points
General Sciences				
	Topic	**Reading**	**Exercises**	**Grading**
LifePac 7th Grade Unit 6	Weather Forecasting	pg. 47-48	3.1-3.16	10 points
		pg. 50-51	3.21-3.34	
		Matthew 16:1-4	3.36	
			3.01-3.10	
			3.018-3.025	
			3.026-3.030	
			3.04	
		Review the NOAA link on Surface Fronts, then explore the Short Range Forecasts and write a sentence about any cold or warm fronts currently impacting the US.		+1 Bonus
Robotics				
	Topic	**Reading**	**Exercises**	
Introduction to Robotics Booklet	Robotic Arm	pg. 36-37	Watch the video on Types of Levers and then write a paragraph explaining the class of lever of a pitchfork. Use the terms "fulcrum", "load" and "effort" in your paragraph.	5 points
		Skim the link on Optimizing Robot Arm Cycle Times. Select one of the optimization techniques and be prepared to explain it in class.		3 points
		Practice programming "action groups" with your miniArm Robotic Arm to move a cube and be prepared to compete against your classmates.		2 points
		Bring the miniArm Robotic Arm to class with the batteries fully charged (carry the robotic arm in a separate box or bag).		
Science Fair				
Create a "Materials" display and attach it to the middle-left of your tri-fold poster board: M*easuring cup (ml), watertight jar, dry sand, water, table salt, food scale (g)*				5 points

Create a "Procedures" display and attach it to the middle-right of your tri-fold poster board: *1. Determine volume of jar based on water displaced.* *2. Place sand into jar so that it just barely floats. Confirm that combined jar & sand weight (g) equals jar volume (ml).* *3. Dissolve different volumes of table salt into water.* *4. Measure water displaced & visually record how high the jar floats.* *5. Add sand into jar so that it just barely floats. Confirm that jar & sand weight (g) equals the weight of the displaced salt water (g) as well as the volume of the jar (ml).*	5 points
Mathematics	
Let x and y represent two numbers. Write out an algebraic equation for each statement: ***Statement 1:*** *Twice the sum of the two numbers is 136.* ***Statement 2:*** *The difference between the two numbers is 22.*	3 points
Solve the above system of algebraic equations to determine x and y.	2 points