

STEM Fall 2026: Week 3				
Complete before the class on Mon, Sep 28th				
STEM Assembly				
- Supplies: Pencil, folder with paper, scientific calculator				2 points
- Books: LifePac Science, CAP Robotics, Mathematics Book				
Find a Bible verse that describes the work(s) of God's hands or fingers. Write it down and be prepared to share in class.				3 points
General Sciences				
	Topic	Reading	Exercises	Grading
LifePac 7th Grade Unit 5	Natural Cycles	pg. 37-38	3.1-3.13	10 points
			3.17-3.19	
		pg. 40-41	3.20-3.30	
		pg. 42-43	3.32-3.37, 3.41	
			3.01-3.014	
			3.015-3.034	
Robotics				
	Topic	Reading	Exercises	
Introduction to Robotics Booklet	Robot Hand (End Effector)	Skim-read the IEEE slides on Assessing the Performance of Robot End-Effectors then write out the following definitions: <i>Finger Strength, Grasp Strength, Slip Resistance, Cycle Time & Finger Repeatability</i>		5 points
		Watch the video of the robotic arm installed on NASA's Mars rover, then watch the video the martian rock that was stuck on the robotic arm in Apr 2026.		2 points
		Watch the video of how to build a robotic hand with cardboard, and then answer the following questions: <i>How many DOF does each finger have?</i> <i>Is the thumb opposable? Explain the importance.</i>		3 points
		Start reviewing the online tutorials and making plans to purchase the miniArm Robotic Arm with either the Starter Kit or the Standard Kit (optional).		
Science Fair				
Create a "Statement of Purpose" and attach it to your tri-fold poster board (replacing the prototype that we made in class).				5 points
Begin your background research on buoyancy and Archimedes' Principle by finding and reading a short explanation online. Write a paragraph to summarize Archimedes' Principle and bring to class.				5 points
Mathematics				
Go to the end of your math book and locate the hardest problem that you can find.				5 points