

STEM Spring 2026: Week 1					
Complete before the class on Mon, Jan 12th					
STEM Assembly					
- <b>Supplies:</b> Pencils & pens, folder with paper, scientific calculator				2 points	
- <b>Books:</b> LifePac Science, CAP Astronomy, Lab Journal					
Learn how to operate one new feature or button on your scientific calculator, and be prepared to demonstrate this new feature or button in class.				3 points	
General Sciences					
	Topic	Reading	Exercises		
LifePac 8th Grade Unit 2	Structure of Matter	pg. 5-6	1.1	pg. 7	15 points
		pg. 9-10	1.5 - 1.7	pg. 11	
		pg. 12	1.12 - 1.14	pg. 12	
		pg. 13	1.15 - 1.19	pg. 13	
		pg. 15	1.21 - 1.22	pg. 15	
		pg. 17	1.27 - 1.28	pg. 18	
		pg. 19	1.32 - 1.35	pg. 19	
		pg. 20-21	1.39 & 1.41 - 1.43	pg. 21	
		pg. 22	1.44 - 1.46	pg. 22	
		1.011 - 1.031	pg. 23-24		
Astronomy					
	Topic	Reading	Exercises		
CAP Astronomy Booklet	Telescopes		Watch the video explaining refraction.		5 points
		pg. 7-8	The GTC reflector telescope in Spain has a primary mirror with a diameter of 410 in. What is the surface area of this mirror? (assume the mirror is a flat, circular disk)		
			The focal length of a convex lens is 12 cm. Calculate the image distance of an object placed 28 cm away from the lens. <i>Hint: Thin lens equation, <math>1/d[o] + 1/d[i] = 1/f</math></i>		5 points
			If the height of the object is 10 cm then calculate the image height. <i>Hint: Magnification, <math>m = h[i]/h[o] = d[i]/d[o]</math></i>		5 points
Hybrid Mathematics & Science Fair Project					
Show that $7.777... = 70/9$				2 points	
Show that $5.454545... = 60/11$				2 points	
Show that $7.777... \times 5.454545... = 42.424242...$				1 points	
Research Question: Write or type your research question				5 points	
Background Research: Identify at least two research sources and record their bibliographic information in your lab journal				5 points	
				Total	50 points