

STEM Spring 2026: Week 1						
Complete before the class on Mon, Jan 12th						
STEM Assembly						
<ul style="list-style-type: none"> - Supplies: Pencils & pens, folder with paper, scientific calculator - Books: LifePac Science, CAP Astronomy, Lab Journal 				2 points		
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						
LifePac 8th Grade Unit 2	Structure of Matter	Topic	Reading	Exercises	15 points	
		pg. 5-6	1.1	pg. 7		
		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						
CAP Astronomy Booklet	Telescopes	Topic	Reading	Exercises	5 points	
			Watch the video explaining refraction.			
		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, $1/d[o] + 1/d[i] = 1/f$</i>			
			If the height of the object is 10 cm then calculate the image height. <i>Hint: Magnification, $m = h[i]/h[o] = d[i]/d[o]$</i>			
Hybrid Mathematics & Science Fair Project						
Show that $7.777\dots = 70/9$					2 points	
Show that $5.454545\dots = 60/11$					2 points	
Show that $7.777\dots \times 5.454545\dots = 42.424242\dots$					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	