**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Graphing Sunspots Lab**

1. **Go to the classroom website:** [**www.mspricescience.weebly.com**](http://www.mspricescience.weebly.com) **and go to the geology page and download the Graphing Sunspot Lab excel workbook. Click Open when the window pops up.**
2. **You will be making a graph showing the yearly changes in sunspot activity from 1700-2004**
3. **To do this, select columns B&C by holding the ctrl button while clicking the B & C letters above the column.**
4. **Click on the insert tab on the menu bar at the top.**
5. **Click on line graph and the first 2-D option**
6. **This should generate the graph that you need. Call me over to check your graph at this point!!**
	1. **MS PRICE’s INITIALS\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Questions**

1. **By analyzing your graph, how does the number of sunspots change over time? What is this type of change called?**
2. **By analyzing your graph, what is the average time interval between sunspot peaks?**
3. **By analyzing your graph, predict the year in which you think the next sunspot peak will occur.**
4. **Go the link:** [**http://www.space.com/11005-missing-sunspots-sun-mystery.html**](http://www.space.com/11005-missing-sunspots-sun-mystery.html) **and read the article, *Mysterious Case of Missing Sunspots Solved*, and answer the questions below:**
	1. **Who first observed sunspots and when?**
	2. **Approximately how long is each sunspot cycle?**
	3. **What cycle is the sun now in?**
	4. **How many cycles did the scientists simulate?**
	5. **What do some researchers suggest the spotless days mean and what have they linked it to?**
5. **Go to the link:** [**http://www.space.com/7885-sunspots-produce-space-storms.html**](http://www.space.com/7885-sunspots-produce-space-storms.html) **and read the article, *New Sunspots Could Produce Space Storms,* and answer the questions below:**
	1. **What active sunspot group does the picture show?**
	2. **If these sunspots were to release X-Class solar flares, what affect could that have on earth?**
	3. **When is the next peak of sunspot and solar flare activity expected to occur?**
	4. **What are scientists going to do to track sunspots and solar flares?**
6. **Go to the following link:** [**http://www.foxnews.com/scitech/2011/03/10/major-solar-flare-erupts-make-auroras-visible-northern/?test=faces**](http://www.foxnews.com/scitech/2011/03/10/major-solar-flare-erupts-make-auroras-visible-northern/?test=faces) **and read the news story about solar flares that have recently erupted and answer the questions below:**
	1. **When was this story published?**
	2. **What states &/or cities could see the aurora from this solar flare?**
	3. **From what sunspot did the most recent solar flare erupt and what type of event class was it?**
	4. **Has this been the only X-Class solar flare recently? Why or Why not.**
	5. **What are the different types of solar flares?**
	6. **What other type of solar activity was recently “unleashed” by the sun on 2/14/11?**
	7. **Is this type of activity extremely rare or is it just a part of the sun’s cycle of weather?**