

Mr. Miller's Astronomy Class

Project #03 = Telescope

Part 1 = Build a Homemade Telescope (50 Pts.)

- <http://www.youtube.com/watch?v=uZeF1KETaU4>
- <http://voices.yahoo.com/making-homemade-telescope-1573391.html>
- <http://www.youtube.com/watch?v=ocHQuaGotPk>
- <http://www.youtube.com/watch?v=9duS7MOLJr4>
- <http://www.hometrainingtools.com/telescope-optical-science-project/a/1248/>
- <http://www.stormthecastle.com/how-to-make-a/how-to-make-a-small-telescope.htm>
- Or do your own search and find another site that helps you make a telescope

**DO NOT USE THE TELESCOPE TO LOOK AT THE SUN!!!
IT WILL CAUSE DAMAGE TO YOUR EYE!!!**

Part 2 = Instruction Manual & Observations (50 Pts.)

- Instruction Manual (25 pts.)
 - Write your own instruction manual for how to make your telescope (15 pts.)
 - Make sure it is step-by-step and explain exactly what you do and why
 - Calculate the magnifying power of your telescope (10 pts.)
 - Measure the distance you can see a sample of writing with your naked eye
 - Measure the distance you can see the same sample of writing, at the exact same size, through your telescope
 - $\text{Magnification} = \text{Distance with Telescope} \div \text{Distance without Telescope}$
- Observations (25 pts.)
 - Use the telescope to observe 5 objects in space (5 pts. each)
 - Give short explanation of what you looked at and what you saw with the telescope that you had never seen before with each object