**The View from There**

You and a partner will choose a place in space from the list below and create 2 drawings. One will be of your place in space, the other of how Earth would look from this place with a giant telescope. Through your telescope you would be observing light that had left Earth a long time ago, and therefore would not be looking at the Earth as it is today.

Your drawing must be labelled with your and your partners names, what your place in space is, the distance in light years from Earth, and the time in Earth’s history you have drawn. When all of the drawings are complete, we will place them in order of distance from Earth.

The following questions should be answered on the back of your drawing or a separate piece of paper:

1. Define a light year? Is it a unit of distance, time, or speed?
2. How many light years away from Earth is your chosen place?
3. What is the speed of light in m/s?
4. Knowing that light takes one year to travel one light year, how long would it take for light from Earth to reach your place? (ex. It would take 25 years)
5. What year in the history of Earth would you be looking at? (ex. 4.5 million years ago or 1823)
6. Write a paragraph describing what was happening at that point in Earth’s history, and what you may see from your place.

Potential Places:

1. **Alpha Centauri B** *component of a binary star* 4.41 light years
2. **Epsilon Reticuli** *double star with exoplanet* 59 light years
3. **Kepler-62e** *exoplanet* 1200 light years
4. **CoRoT-14** *exoplanet* 4363 light years
5. **MOA-2009-BLG-387L** *red dwarf star* 18 460 light years
6. **LBV 1806-20** *luminous blue variable star* 38 700 light years
7. **R136-a1** *a Wolf-Rayet (the most massive star known)* 160 000 light years
8. **NGC 2419** *globular cluster* 275 000 light years
9. **Phoenix Dwarf Galaxy** *dwarf galaxy* 1.44 million light years
10. **Andromeda Galaxy** *spiral galaxy* 2.5 million light years
11. **NGC 4486** *elliptical galaxy* 53 million light years
12. **Antlia Cluster** *galaxy* cluster 133 million light years
13. **Arp 220** *ultraluminous infrared galaxy* 250 million light years
14. **Markarian 421** *blazara* 397 million light years
15. **Horologium Supercluster** *galaxy supercluster* 900 million light years
16. **3C 273** *Quasar* 2 billion light years