

Group project: The story of our universe.

Due date: Friday, November 6th.

In this project, students will ‘give back’ to Clark, their understanding of the creation and evolution of our universe. To keep things interesting however, during this Covid time, the story will be presented with creativity in addition to detail and accuracy. How the student-groups choose to be creative, is up to them but all groups will be encourage (through points!) to make an effort. In a sense, this will be an exercise in historical fiction.

Two suggestions to start the conversation.

Scenario I

Imagine we are in the year 2850 and all of the sci-fi movies have come true. The ‘universe is open to creatures and life forms from other galaxies, we are freely trading (and waring) with other sentient beings. Your team, is working for the ‘Empire’, and has been assigned the task of determining the value of minerals in our solar system, and of Earth specifically. As part of the ‘report/assessment’, your team documents the formation of the solar system including the current motions of the planets (with a focus on Earth and its moon) and future predictions of solar system dynamics (what will happen to the Earth, moon and sun in the future?). The report will be ‘business like’ and include many details as well as creative pieces, playing up on the ‘vision’ of this future.

Scenario II

This vision is a play on the recent Thor movies... with various “gods” interacting with each other (teams/romances/in-fighting, etc). In this scenario, perhaps what is happening is an ailing King (or Queen or other community elder) is telling ‘the story’ of how this particular solar system formed, with many interesting details, and is describing what the future fate of this region of space will look like, billions of years from now. The students are encouraged to add ‘story lines’ to describe the details of system evolution (perhaps that Loki was angry at Thor and threw a planet at Earth, which collided and caused the formation of the moon, for example).. mixing fact with fiction.

Other scenarios?

The main idea, is to have fun with this project, to create a ‘historically fictional story’ which is accurate and detailed in its presentation of science facts but which is creative in its presentation of ‘the story’ which led to is current form and future, likely scenarios. Any story line you choose to follow is welcome.. Students are encourage to use artwork, images, etc.. (perhaps create some kind of graphic novel?). As long as you cover the bases below, with a healthy dose of creativity.. its all good!

Details to include:

What was the genesis of the clouds of gas and dust? What events triggerd collapse? How much of the system actually became our solar system? What is happening with the rest of it? What evidence is there that our star (the sun) is not the first star to exist in this region of space? Why do things rotate the way they do? How have things been changing? How has the surface of the Earth changed in time? How has the moon’s orbit and rotation changed in time? What events cause meteors and comets to fall to Earth? What role did comets and meteors play in the past? What can we learn from comets and meteorites? What is the future of Earth, the moon, the Sun and the solar system as a whole?

Note to student: This project is DUE on the last day of this marking period, and will be the most significant portion of your grade (outside of the unit test). The idea is that, by working on this project, you will be ‘studying’ for the test which will also be on Thurs/Fri November 6th and 7th.

Grading of this project:

Completed the assignment? <i>(just the minimum or perhaps something more?)</i>	5	4	3	2	1	0
Clear progression of ideas? <i>(can a reader easily and clearly follow what you did and why?)</i>	5	4	3	2	1	0
Accurate science and conclusions <i>(did you achieve the educational goals of the assignment?)</i>	5	4	3	2	1	0
Creativity in writing, layout and use of illustrations? <i>(how well do you capture the readers interest?)</i>	5	4	3	2	1	0
Overall professional layout and construction <i>(i.e. overall craftsmanship of product)</i>	5	4	3	2	1	0

5 = superior. Teacher is impressed

4 = “good job”. (you took 3rd in the race).

3 = you understood the directions and made a minimum effort to comply.

2 -1 = your effort is less than satisfactory

0 = item is absent altogether.

Your score _____ (x 2= multiplier) = _____ / 46 pts.