**P12**

**Final Assessment Project**

**You can work individually or in a group of up to 4 students.**

**Goals and Expectations:**

* The aim of your presentation is to create a video (or several videos) that shows the following:

|  |  |
| --- | --- |
| Topic | Done ☺/ Not yet ☹ |
| Using an example and definitions, teach \_\_\_\_\_ out of the 8 topics* Final Velocity of a Projectile just before it hits the ground or an obstacle.
* Newton’s Laws (3) and the Universal Law of Gravity
* The Law of Conservation of Energy
* Conservation of Momentum (Collisions and Explosions)
* Torque and its applications
* Centripetal Force /Acceleration/Orbits
* Electrostatic Force/Electric Field
* Electromagnetism and its applications
 |  |
| 2 examples of physics principles you experience every day. Explain the principles in detail. |  |
| 2 examples of physics principles that were essential to developing the most famous formula: E=mc2. |  |
| 1 example of a relativistic physics.  |  |
| Briefly introduce 1 physicist who, in your opinion, contributed to the bettering of human kind the most. (You are not allowed to present Sir Isaac Newton or Albert Einstein.) Justify your choice with at least 3 strong arguments that illustrate the importance and consequence of this physicist’s work and legacy. |  |
| References for your sources of information, images, examples, and inspiration. |  |

**The number of topics you have to teach must be equal to the number of people in your group +1.**

**Assessment:**

* **Physics 12 will have a scheduled exam 3-hour period during the last week of school. We are going to view the videos as a group and audience will be able to ask questions and give constructive feedback.**
* **This assessment replaces your final exam and contributes 20% to your final grade.**
* **If you are earning proficient or extending (72% or higher) you do not need to write the final exam.**
* **If you would rather write the exam or your semester mark is below 72% you will write the final exam during the same time in a classroom, that will specified to you before the exam week.**