



The Physics Music Video Project 2015-2016

75 points, all parts turned in earliest hour

Name: _____

Due: group sign up 2/5, lyrics due on 3/1, instrument and all video shot by 3/7, email YouTube link by midnight Monday night 3/14, DVD copy and write-up due 3/15 turned in earliest hour

**** Select your group carefully. Your grade depends on it. No late projects will be accepted. ****

If you turn your project in a day early (Mon. 3/14), you will receive a sticker.

The Assignment: in groups of 1-5 from the same physics teacher (no more than 5 students, no exceptions, don't even ask)

Part I-The Instrument (20 points) Make a musical instrument that plays at least 6 recognizable notes

Part II-The Performance (45 points) use that instrument in a 3-5 minute physics-related musical performance

*** We must be able to hear and understand you!**

You need to put the video on YouTube and send your teacher an email w/the link by the due date

You will also need to burn your performance onto a working DVD for Mrs. B

Part III- The Write-Up (10 points) (See details below)

Grading:

Part 1: Your Instrument (20 points)



- i) You must have a minimum of one homemade instrument per group. You are graded on the quality of your instrument. You may use other pre-made instruments if you wish in addition to the one you make.
- ii) Your instrument must be able to play a minimum of **5 recognizable and distinct notes**.

Suggestions for Your Homemade Instrument

- 1) pipes or tubes of different lengths (*like the Boomwhackers*)
- 2) stringed instruments - *strings under tension of different lengths*
- 3) trombone (out of PVC pipe- use different diameters and different lengths)
- 4) flute (using PVC pipe with holes)
- 5) wooden or metal xylophone- blocks of wood/metal resting on string or rubber bands
- 6) bottles to blow across- low quality instrument (max of 8/10 pts possible)
- 7) glasses filled with water - low quality instrument (max of 8/10 pts possible)

- iii) You are graded on **the use of your instrument**. You need to use it **throughout the video**, not just in one part. (at least 3 times!)



Part 2: Your Performance (45 points)

- i) **We have to be able to hear and understand your lyrics!** Absolutely nothing that's inappropriate for school!
- ii) **Your Lyrics** - You are to sing about physics, not your physics class- cell phones, etc, The **lyrics** need to include **25+ physics terms** and **at least one equation** from Quarters 1, 2 and 3 used correctly, to any tune you choose. Make sure you **underline them in your lyrics**. You need to **teach and explain concepts** in your lyrics, not just list terms.
- iii) **You need to entertain your classmates**. Show us your musical talent if you have any. If you can't sing, be creative. You can rap, use drawings, have a guest star in your video. Consider other things such as costumes, back-up singers, fun locations, family members, etc.
- iv) You are also graded on your overall performance and apparent effort you put into this assignment. It is very obvious if you do not put effort into this project. If you do a poor job, you will receive a poor grade.



Part 3: The Write-Up (10 points) -

- i) One **typed report** per group (**all typed**- even eqns. with all names and hours). Write a quality description of your instrument that includes the following: a **sketch** of it, a brief **explanation** of how you made it, and **how it works** in terms of sound, including which **equations you used to determine the notes it will play**. Make sure to include what **type of instrument** (closed or open) it is and what standing waves are created. If you have a lower quality instrument (**glasses with water**) you will need to tell me **WHY** the pitches are different for the different levels of water and how you determined what note it would play.
- ii) one **copy of your lyrics**, typed, with all physics words underlined



Physics Music Project Contest



- * Your **physics teacher** will select the top 3 groups based on quality, physics content and entertainment value, not necessarily on talent ☺. **PRIZES:** 1st place- 10 extra credit pts.
2nd place- 5 extra credit pts.
3rd place- 3 extra credit pts.

- * Quality work is expected. Poor projects (not based on talent ☺) will receive a poor grade.
- * Your video will be shown to your class. Your physics teacher reserves the right to also show your video to some or all of the other physics classes. ☺ Your video may also end up on the Flash credits. ☺

Please show RESPECT for your community, Eastview, the janitorial staff, and for Mr. Fornicoia

- * YOU ARE **NOT** ALLOWED TO FILM ANY OF YOUR VIDEO **INSIDE OF EASTVIEW** due to poor choices made by past students. If you film in the community (stores, etc.), you need to ask permission and be very respectful.
- * Reminder- The school computer labs close at 3 pm. You are not allowed to be in the labs after that time- even the night before it is due! Please plan ahead. Thank you again for your understanding.
- * **Message from Mr. Fornicoia-** "Last year some students used the computers in the Flash studio. This caused problems such as filling the editor's space, videos were captured video to the wrong location, the students in the Flash/4Cast had videos deleted, etc. Our editors in the studio are constantly full with Flash/4Cast/Broadcast Journalism/Video Yearbook. We can't handle outside classes. **PLAN AHEAD!** Thank you for your understanding."
Note: All computers in the south, east and west media labs have Adobe Premiere Pro for video editing.
- * It is **not** Mr. Fornicoia's job to help you with this project. He has a full teaching schedule!

KEY TO SUCCESS: Start early! DO NOT put this off!

Physics Music Project Grading Sheet

*Fill in the names and hours of your group members and the title of your performance and give one of these to your teacher when you turn in your project.

All Group Members Full Name(s) 1) _____ hr. _____ 4) _____ hr. _____
2) _____ hr. _____ 5) _____ hr. _____
3) _____ hr. _____

The Clever Physics-Related Title of Our Project: _____

YOU MUST HAVE A TITLE!

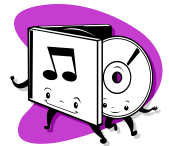
Part I- Your Instrument (20 points)

POINTS earned

i) quality of your homemade instrument (H ₂ O glasses max of 8)	0	2	4	6	8	10
ii) instrument can play 5 recognizable notes	0	1	2	3	4	5
iii) homemade instrument used throughout the video (3 times minimum)	0	1	2	3	4	5

Part II- Your Performance (45 points)

i) we could understand you , appropriate, relevant	0	1	2	3	4	5		
ii) your Lyrics (25+ terms from Q1, Q2, and Q3, good use)	0	3	5	7	9	11	13	15
iii) entertainment value- very important ☺	0	2	4	6	8	10		
iv) overall apparent effort	0	3	5	7	9	11	13	15



Part III- The Write-Up (10 points)

i) one quality write up, all typed and 1 copy of your Lyrics	0	1	2	3				
ii) description, sketch, & explanation of instrument	0	1	2	3	4	5	6	7

Comments:



Total score: /75 pts.