

Name (s) : \_\_\_\_\_

## Physics Project Video Adventure

### Purpose

To examine physics concepts occurring in real life situations.

### Task

In groups (1-3 people, 2 is preferred but 3 MAX!), you must attain a video clip, animation or other online resource that demonstrates any of the physics concepts covered in this course thus far. You will then present the video clip and explain the concepts involved (~5 – 10 mins)

### Topics Thus Covered (there may be several concepts involved in each topic)

- Relative Velocity (Navigation)
- Projectile Motion
- Inclines
- Equilibrium
- Torque
- Circular Motion (We will cover this unit during this project)
- Conservation of Energy
- Conservation of Momentum
- Impulse

Your mark will be based on the following criteria:

#### Clip

- Originality /2
- Relates to the course material /2

#### Explaining the concepts

- Depth and Breadth /2
- Accuracy /4
- Clarity of concepts /4

#### Presentation/Delivery

- Preparedness /2
- Speaking clearly/Vocal projection /2
- Use of multimedia and/or creativity /2

#### Bonus

- Quantitative analysis /2

**Presentation Date:** \_\_\_\_\_

## Assessment: Rubric

	0	1	2	3	4
<b>Clip</b>					
<b>Originality</b>	No originality. Video may have been an example of what we did in class.	Some originality. Video example may have similarities to the examples discussed in class.	Thought-provoking video that clearly reflects the personal interest of the presenter(s). Video example fresh and different from examples discussed in class.		
<b>Related to Course Material</b>	Has no relation to course material.	Clip demonstrates unclear relationship to covered concepts or is solely related to concepts not covered in this course.	Clip clearly relates to at least 1 physics concepts covered in this course.		
<b>Physics Content</b>					
<b>Depth and Breadth</b>	Minimal to no explanation of concepts.  Ex. Only mentioning “the forces in the x and y direction balance” with no explanation or elaboration.	Having no depth or no breadth.  Ex. Explaining only 1 concept really well OR providing superficial explanations of several concepts.	Depth: Detailed and elaborate explanation of how each concept applies.  Breadth: More than 1 concept discussed. At least 1 concept must be covered in our course thus far.		
<b>Accuracy</b>	I have no idea what you’re talking about...	Major gaps in understanding. Big picture message is delivered but may not be in the right direction.	Noticeable gaps in understanding but the big picture understanding is correct.	Minor gaps in understanding but they do not impede the message delivered.	No misconceptions or errors in explanation.

<b>Clarity of concepts</b>	No clarity and explanation.	Whole explanation has limited organization and clarity. Overall message is delivered.	Some parts of the explanation may not be clear, but it does not impede the message delivered. Some proper Physics language used.	Concepts are explained clearly. Proper Physics language used.	Concepts are explained clearly with logical flow. Proper use of Physics language enhances message delivered.
<b>Presentation</b>					
<b>Preparedness</b>	<p>Presenters were not ready to present on time.</p> <p>Presentation had no sequence.</p> <p>There may have been several time gaps in the presentation while presenters were sorting out the material.</p>	<p>Presentation had some sequence and flow.</p> <p>Noticeable gaps in organization.</p> <p>Not ALL presenters may have been prepared.</p>	<p>Presentation had a logical flow and sequence.</p> <p>ALL presenters knew when and what they were talking.</p>		
<b>Vocal projection</b>	I can't hear youuu!	All presenter's voice(s) is audible from the back of the room.	All presenter's voice(s) is audible and uses vocal variety to enhance the message delivered in the presentation.		
<b>Use of multimedia and/or creativity (does not include showing the video clip)</b>	No multimedia and/or creative presentation method is used. Bare bone presentation right after showing the video clip online.	Multimedia and/or creative presentation method is used. It may distract the audience from the main message.	Multimedia and/or creative presentation method enhances the message delivered.		

<b>Bonus!</b>					
<b>Quantitative Analysis</b>	No quantitative analysis.	Some quantitative analysis made with little errors.	Elaborate and thorough quantitative analysis with little to no errors.  Motion tracking software was probably used (Logger Pro, Tracker).  Analysis is proceeded by an evaluation of the analytical method.		

**Total** **/20**

**Feedback**

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