Math in 60 Seconds

**Objective:** To create a 60-second video about a current event or an area of interest that involves mathematics.

**Possible Topics:**

-Relate mathematics to a construction or design project

-Apply mathematics to personal finance

-Explore a strategy game using mathematics

-Create a strategy game using mathematics

-Explore the Golden rectangle or Fibonacci sequence

-Explore a connection between mathematics and art, music or architecture

-Conduct a study of bacterial growth, population growth or the spread of disease

-Explore a connection between mathematics and the environment

-Explore a connection between mathematics and personal health or fitness

-Investigate the connection between video games and mathematics

-Research and report on a famous mathematician

-Develop a study guide for a topic in Mathematics 30-2

-Describe strategies for winning a game of choice

-Create a summary of mathematical irregularities (e.g. 0!=1)

-Analyze cases of mathematical illiteracy in the media

…or chose your own topic

**Requirements:**

This project has a *written portion* and a *presentation portion*.

**Written Portion** – Students will hand-in a 1-2 page typed summary of their topic (minimum 1 page). This is a written explanation of the interpretation of the data they have collected. This should include:

-Why you chose this topic, why it interested you

-A summary of the data that you collected

-An interpretation of the collected data

-An assessment of the reliability and accuracy of the data you collected

-A reference page of the places that you acquired your data (websites, books, videos etc.)

**Presentation Portion** – Students will present a 60 second video to the class. The video must present the topic chosen, the data/research collected and an analysis of the data. The video should be compelling, interesting and informative. The video must be handed in via a USB stick or email and must be in .avi, .mp4, .mov or .wmp format.

**Approximate Timeline:**

*Day 1* – Begin researching possible topics. Decide on a topic and give your topic to Ms Chang.

*Day 2* – Continue researching your topic. Make sure you keep a record of the sources of your data. If possible, begin collecting data. Write your topic summary.

*Day 3* – Begin filming your project.

*Day 4* – Edit your film and finish your topic summary.

*Day 5* – Present.

**Materials:** You will be given 4 classes of lab time. You can use the Windows Movie Maker program to edit your footage. You can use a cell phone or camera to collect your footage. You may also use pictures and make a slideshow, with a voiceover.

**Checklist:**

* 1-2 page typed summary of topic and research.
* Source page (books, websites, movies, music etc that were used in your project)
* 60 second video in either .avi, .mp4, .mov or .wmp format

**Looking for inspiration?** Try the following (Youtube):

-Vihart

-MinutePhysics

-Quirkology

-WSHSmath

**Grading:**

The following is the rubric that I will be using to assess your project.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Level  Criteria | 4  Excellent | 3  Proficient | 2  Adequate | 1  Limited \* | Insufficient/ Blank \* |
| Collect primary or secondary data related to the topic  (MRP 1)  [CN, V] | Collects data that is **pertinent** and **conclusively** establishes the trend. | Collects data that is **relevant** and **substantially** establishes the trend. | Collects data that is **suitable** and **generally** establishes the trend. | Collects data that is **irrelevant** and **does little to** establish the trend. | No score is awarded because there is insufficient evidence of student performance based on the requirements of the assessment task. |
| Interpret the Data  (MRP 1)  [ME, PS, R, V, T] | Provides an **astute** interpretation of the data. | Provides a **credible** interpretation of the data. | Provides a **rudimentary** interpretation of the data. | Provides a **flawed** interpretation of the data. |
| **Organize and present the research project**  (MRP 1)  [C, CN] | Organizes and presents the research in a **purposeful** and **compelling** manner. | Organizes and presents the research in a **logical** and **effective** manner. | Organizes and presents the research in a **reasonable** and **simplistic** manner. | Organizes and presents the research in a **disorganized** and **ineffective** manner. |

This project is worth **5%** of your school-based grade.

**Project Due:** Friday, December 21st