**Foundations of Technology 9th Grade**

NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DATE \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Greatest Engineering Achievements of the Twentieth Century**

**DIRECTIONS: In groups of two, you will develop a brief (five-minute minimum) oral presentation on one of the “Greatest Engineering Achievements of the Twentieth Century”. Each group will select one topic from the list below.**

**Air Conditioning and Refrigeration Agricultural Mechanization Internet**

**Laser and Fiber Optics Computers Imaging**

**Health Technologies Telephone Household Appliances**

**Water Supply and Distribution Electrification Airplane**

**Nuclear Technologies Highways Automobile**

**Radio and Television Spacecraft Electronics**

**Petroleum and Petrochemical Technologies High-Performance Materials**

Use the website **http://www.greatachievements.org** to research information on your selected topic.

|  |  |  |
| --- | --- | --- |
|  | http://www.greatachievements.org/Images/spacer.gif |  |

**Your presentation must discuss all of the following statements listed below. Use the circles like a check list.**

* Describe what the engineering achievement is
* Describe what the engineering achievement does (How does it work? How does it function?)

You may use the website www.howstuffworks.com to help you with this information.

* Explain the need or desire that led to these projects
* Explain the resources used to create the project
* What were the personal characteristics of the people who planned and built the project
* Explain the constraints that impacted the development of the project
* What are some of the negative byproducts and or negative outcomes from the engineering achievement
* Do an analysis of the project based on the **four** design principles *(this is found in your notes from this unit)*
* Explain how the engineering achievement impacts your life
* What the future developments or improvements of this engineering achievement may come

**GRADING**

**RUBRIC ON**

**THE BACK**

*You may use Google to find this information*

**PRESENTATION RUBRIC**

**Greatest Engineering Achievements of the Twentieth Century**

|  |  |  |
| --- | --- | --- |
| **THE CONTENT SECTION** | **POINTS****POSSIBLE** | **EARNED ASSESSMENT** |
| **SELF**  | **TEACHER** |
| Concepts are accurately presented. | **5** |  | 0 1 2 3 4 5 |
| Supporting details are used to help explain the concepts. | **5** |  | 0 1 2 3 4 5 |
| Vocabulary is appropriate to both the content and the audience. Not using generic throw-away words such as: like, stuff, gonna, etc.  | **5** |  | 0 1 2 3 4 5 |
| Visuals, including pictures, diagrams, photographs, videos, and otherprops, are used appropriately to support the presentation. | **10** |  | 0 2 4 6 8 10 |
|   Described what the engineering achievement is | **2** |  | 0 1 2 |
|   Described what the engineering achievement does  (How does it work? How does it function?) | **2** |  | 0 1 2 |
|   Explained the need or desire that led to these projects | **2** |  | 0 1 2 |
|   Explained the resources used to create the project | **2** |  | 0 1 2 |
|   What were the personal characteristics of the people who planned and built the project | **2** |  | 0 1 2 |
|   Explain the constraints that impacted the development of the project | **2** |  | 0 1 2 |
|   What are some of the negative byproducts and or negative outcomes from the engineering achievement | **2** |  | 0 1 2 |
|   Do an analysis of the project based on the four design principles  | **4** |  | 0 1 2 3 4 |
|   Explain how the engineering achievement impacts your life | **2** |  | 0 1 2 |
|   What the future developments or improvements of this engineering achievement may come | **2** |  | 0 1 2 |
| **THE PRESENTATION SECTION** |  |  |  |
| Vocal quality: rate, volume, articulation, enthusiasm | **5** |  | 0 1 2 3 4 5 |
| Body language: eye contact, posture, body movement appropriate | **5** |  | 0 1 2 3 4 5 |
| The speaker responds well to questions. | **2** |  | 0 1 2 |
| There is a clear beginning, organized body, and clear closure. | **3** |  | 0 1 2 3 |
| **TOTALS** | **62** |  |  |