

me:

Period:

Date:

Foundations of Technology

Unit 1 Lesson 4: Advertising and Marketing Effects on Technology

File 1.4.1: Advertising Writing Prompt

Monday HOMEWORK

Directions: In your Engineering Journal, **on a separate sheet of lined notebook-binder paper**, respond to the writing prompts below. Use complete sentences. **Give examples** to support your opinion/ answers in **short-essay format**. (You need to be able to write **1-2 paragraphs** to answer each question.)

DO NOT TURN THIS PAPER IN.

1. In your own words, describe your **favorite advertisement** and the **product** it represents.

EXAMPLE: My favorite advertisement is the Pepsi commercial. The product that it represents is Pepsi soda. I like the advertisement.....

2. In your own words, describe what makes a good advertisement.

EXAMPLE: What makes a good advertisement is This advertisement is a good advertisement because

The following **rubric** will be used to evaluate your work:

Category	Below Average	Average	Excellent
Title Page	The title page does not include all of the necessary information.	The title page includes all of the necessary information. Sketches are detailed and describe the product in detail.	The title page includes all of the necessary information. The product title is creative while describing the product. Sketches are detailed and describe the product in detail.
Purpose of Invention	The purpose of the invention is not clearly stated or does not include all the necessary information.	The purpose of the invention includes all necessary background information and the problem the invention is trying to solve.	The purpose of the invention includes significant background information related to the invention, and the problem statement is clear with a defined purpose.
Overview of Procedure	The overview of procedure reflects some of the steps a company would use to conduct further research and development.	The overview of procedure reflects Most of the steps a company would use to conduct further research and development.	The overview of procedure accurately reflects the steps a company would use to conduct further research and development.
Budget	The price is inaccurate based on the student's research or the student did not justify the price using face-to-face and online surveys.	The price reflects the student's research and the cost of related products. The price is justified by students completing both face-to-face and online surveys.	The price reflects the student's research and the cost of related products. It cites similar products and discusses why they would be comparable to their product to justify the price. The price is further justified by students completing both face-to-face and online surveys.
Summary	The summary does not describe the design proposal or is missing key information in the design proposal.	The summary includes all key information in the design proposal, is well structured, and clearly summarizes the design proposal.	The summary includes all key information in the design proposal, is well structured, and clearly summarizes the design proposal.
Developing a Survey	The product survey was not designed to collect usable feedback to improve the product.	The product survey was clear and collected usable feedback.	The product survey featured well-designed questions with a specific purpose. The reviewer had ample opportunities to comment on the product and provide feedback. Usable data was collected.
Analyzing Feedback	The student did not incorporate usable data into the redesign of the product.	The student incorporated usable data into the redesign of the product. The student was able to anticipate recommendations and had a plan to refine the product.	The student used the data as a reflection on the product's evolution. Responses were accurate, with insight in the product's redesign. The student used feedback to improve the product and was able to anticipate the product's evolution.
Product Development	The design proposal lacked description of the product. Answers were not in complete sentences. The product sketch lacked detail. Feedback was not incorporated into the product's redesign.	The design proposal identified how the product will function and the essential use for the product. The product sketch showed the product effectively. Feedback was used in the product's redesign, and recommendations were cited.	The design proposal was detailed and included the essential functions of the product. Comments were in complete sentences and included descriptive adjectives. The product sketch was annotated and showed both product function and purpose behind the product's design. The design proposal incorporated feedback to improve the product while citing sources.

The Draft Design Proposal: Your design proposal must be submitted electronically and needs to include the following components (represent each component with its own heading):

Microsoft PowerPoint

- Title Page: (**slide 1**)
 - **Foundations of Technology, Your name, product name, date.**
 - **Sketch of invention- complete on graph paper.**
- Purpose of the Invention: (**slide 2**)
 - **Problem statement (what does the invention solve?), background information related to the problem and product.**
- Overview of Procedure: (**slide 3**)
 - **Determine the steps the company would use to conduct further research and development of a product to prepare it for the marketplace.**
- Project Pricing: (**slide 4**)
 - **Develop an initial price for the product (based on research of related products or data collected from classmates – justify your price point).**
- Summary: (**slide 5**)
 - **One-paragraph summary of information included in the proposal.**

Developing a Survey: Create a five- to ten-question survey based upon your product description. The survey should address the product's use, cost, and how the product can be improved. Include in the survey a product description and any annotated sketches.

- **Student Note:** There are many online resources that showcase how to develop an effective survey. Use your research to inform your survey development. Choose the format and survey platform that is available and best fits your needs. Keep your questions short, with a direct meaning and purpose for response. Allow the reviewer an opportunity to provide feedback to improve your product design. **USE SURVEYMONKEY.COM** to complete your survey

Analyze Survey Feedback: In your engineering journal, record the survey responses. Once complete, answer the following questions.

Based on the survey feedback, what information did you find the most useful?

Based on the survey feedback, what information did you find the least useful?

Did you anticipate the responses? Why or why not?

Based on the survey feedback, how might you revise your product?

The Final Design Proposal: Your final design proposal must be submitted electronically and needs to include all of the components from step one (title page, purpose, procedure, budget and summary). In addition, your final design proposal should include feedback gathered through face-to-face refinements and the online survey. Cite specific examples of how your product was further developed based on the market research you conducted.

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Unit 1 Lesson 3: The Role of Research and Development		
File 1.3.2: Developing a Design Proposal Activity	Classwork	

Developing a Design Proposal

Background

Research and development is a problem-solving approach used to prepare a product for the marketplace. The most innovative ideas are often the product of a group of people. People often find it easier to come up with great ideas when they are able to work with a group and collect feedback. Innovation is also a key to a product's success in the marketplace. Just because a device works, does not mean it functions efficiently or will work for other people. A marketable device needs to be easy to use, priced effectively, and safe for the user. Feedback is essential when creating a marketable product.

Problem

If you could invent something to make your life easier, what would it be? Develop a design proposal for a product that would make your life easier. The design proposal should include sketches of your idea, its essential functions, and who your product serves. Once your initial idea has been developed, solicit feedback from your peers to revise and update the final design proposal.

Procedure

Part A (Classwork..... 2/29/16)

- Develop a draft of your Design Proposal using the components below.
- Type your draft on a new Microsoft Power-point presentation (PPT)

Part B (Classwork..... 3/1/16)

- Create a five- to ten-question survey based upon your invention/innovation. The survey should address the product's use, establishing an appropriate price and how the product could be improved. Include in the survey a product description from your draft design proposal and any annotated sketches.

Part C (Classwork3/2/16)

- Have three or four classmates complete the survey.
- Collect and analyze the feedback provided.
- Finalize your Design Proposal, citing specific examples of how your product has been improved based on market feedback.

Equipment

Computer w/Internet access

5. As technology advances, do people become more or less specialized in the things they do for a living? Cite examples.

6. As technology advances, do the tools and processes we use to make, build, and do things become more efficient (become faster and require less material, energy, and fewer people)? Cite examples.

7. As technology advances, does it require science and math applications? Cite examples.

Define the term "Invention":

Define the term "Innovation":

Think, Pair, Share

1. **Think:** Individually, take two to five minutes to record your thoughts.
2. **Pair:** With a student close to you, share your reflections.

Consider the following questions: What surprised you? What conclusions did you both agree upon? Develop a definition for each of the terms "invention" and "innovation."

3. **Share:** Be prepared to share your discussion with the class.

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Foundations of Technology

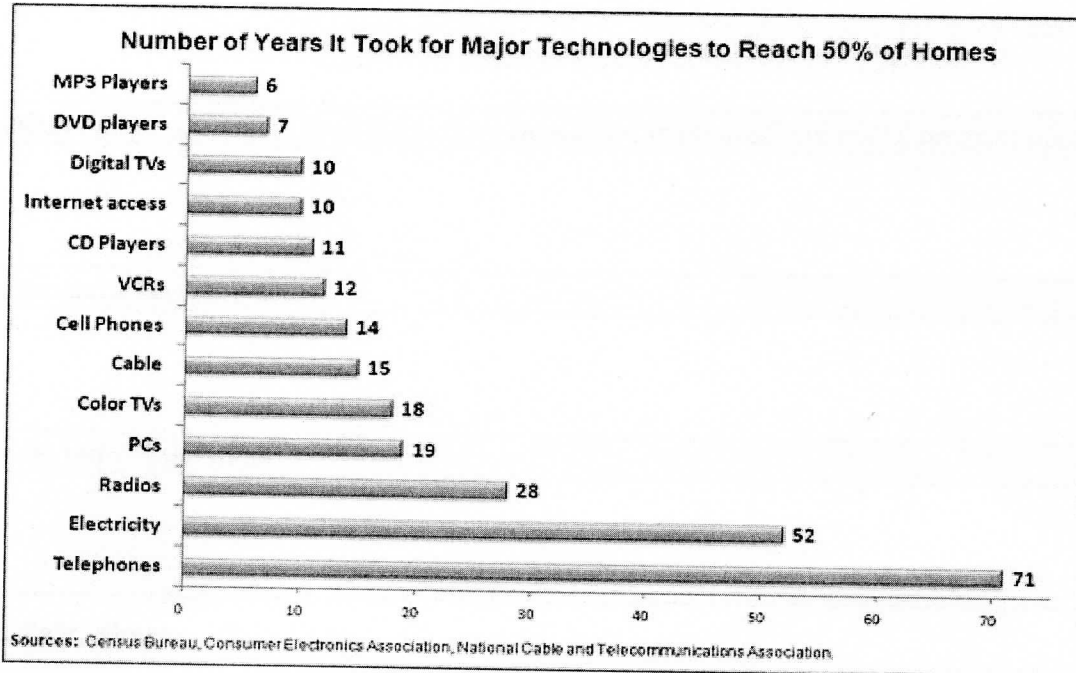
Unit 1 Lesson 2: Technological Inventions and Innovations

File 1.2.2: Enduring Ideas of Technology Student Survey

Wednesday Homework

Directions: Use the graphic below to answer the questions in the student survey. Some questions are specific to the graphic, while others will require you to use additional background knowledge. Once complete, discuss your answers with a partner and collectively develop a definition for the terms "Invention" and "Innovation."

Student Survey:



1. Is the adoption rate of communication technology increasing or decreasing? Cite specific evidence.

2. Why do you believe that current communication technology is adopted at a faster rate? Cite specific evidence?

3. Based on the graphic, can you generally predict how long it took current communication technologies like Google, Twitter, and Facebook to reach 10 million users?

4. As technology advances, does technology become more or less complex? Why?

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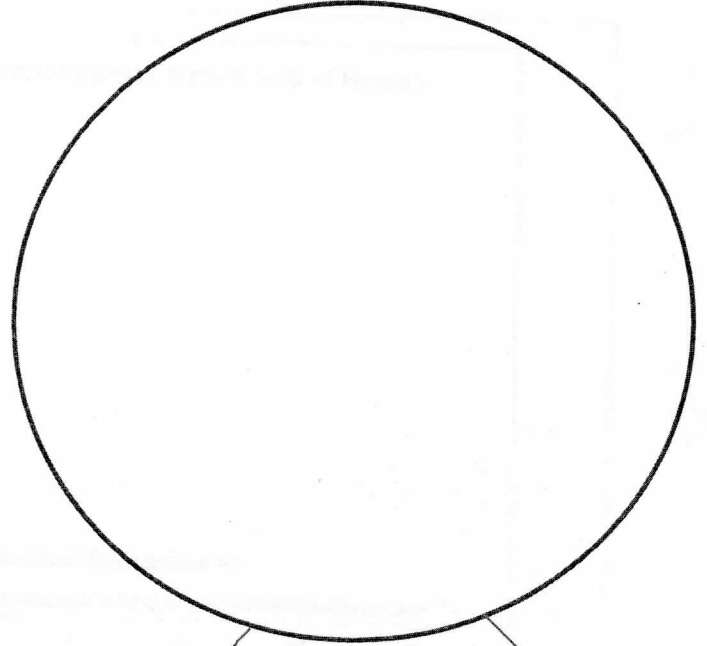
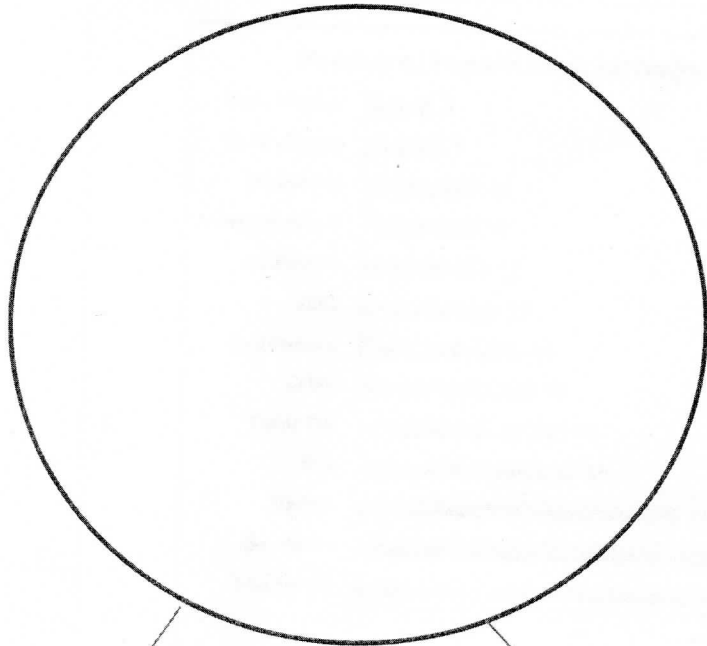
Unit 1, Lesson 2: File 1.2.1 Inventions and Innovations Concept Map

Mrs. Payne, Lab B-16

Directions: Fill in the concept chart to depict the **difference between an invention and innovations**. Use complete sentences and sentence starters to write your responses below. Make sure you give 2-3 examples to support your opinions/statements.

INVENTION

INNOVATION



Empty rounded rectangular box for writing examples or details for Invention.

Empty rounded rectangular box for writing examples or details for Invention.

Empty rounded rectangular box for writing examples or details for Innovation.

Empty rounded rectangular box for writing examples or details for Innovation.