***Overview***

Technical professionals are often required to define or describe a technical object, concept, or process to someone who has little knowledge or experience with it. For example, an engineering firm might write a proposal to bid on a contract to develop a helicopter for the Defense Department; one section of the proposal would be a detailed description of the product the company proposes to develop. Technical descriptions are used before products and processes are developed (as part of proposals and planning documents), during development (in progress reports, for instance), and afterwards (as part of marketing and promotional literature and technical support documents).

***Choosing a Topic***

This assignment asks you to select a product or process and write a description of it. There are two different kinds of technical descriptions to consider. Choose whichever one is appropriate, depending on your topic.

**Note:** It is a good idea to select something with which you are already familiar, so you can focus on learning how to write the description rather than focusing on both learning how to write the description *and* learning about the product or process!

A **product description** explains the features of a specific device, like a scientific instrument or computer program. Possible topics include devices that are specific to your field, or devices you use in everyday life:

* · Manual grass clippers
* · Fuel cell
* · Battery
* · Catalytic converter
* · Manual can opener
* · Your favorite computer or video game
* · A specific car model

A **process description** explains how a complex event occurs, including a mechanical process (i.e. how donuts are made) or natural event (i.e. how lightning is produced). You can choose a process that is specific to your field, or one that people may be curious about:

* · How a specific drug works
* · How steel is made
* · How fuel cells work
* · How a computer compiles and executes a program
* · How your microwave works
* · How food products are irradiated

**Note: A product or process description is not an instruction set.**An instruction set provides steps a user would take in order to complete a task (for example, steps to change oil in a car). In contrast, product and process descriptions describe *how*something works (for example, how oil functions to cool an engine). The contrast is between how to use something and how that thing works (e.g. how to use a microwave versus how the microwave heats food). **For this assignment, you should focus on how things work, not how to use them.**The next assignment will ask you to focus on instructions.

***Specific Requirements***

**Audience and Purpose**

Select an audience that would be interested in learning about the process or product you explain. For example, you could assume an audience of freshman college students reading about your topic in a textbook. You could write a marketing document to persuade people to buy a product. Or, you could write a description that would be part of a proposal being sent to a potential client. In the assignment you should assume that the description is crucial to the work of your audience, however your readers are not experts on the topic. You are the expert explaining the product or process to the reader.

**Gathering Information**

Take time to learn all you can about the product or process you select, even if you are already familiar with it. Read background information or otherwise inform yourself about the topic. List any sources in either a Works Cited or a Works Consulted section.

**Contents/Organization**

We will follow Markel’s four principles of writing descriptions:

1. **Clearly indicate the nature and scope of your description**. This section will also include information about your target audience, the knowledge level of your audience and why your audience might need this description.

1. **Include an introduction to your product/process**. Most introductions are general – give your reader a broad overview of your topic. Include a sentence (or longer) definition. Many introductions also include a visual.

1. **Provide appropriate detail**. This will be the “body” of your description. **For products**, describe each part in detail, including dimensions, materials, functions and relation to other parts. **For processes**, describe each step in detail. In either case, remember to make all language/discourse choices based on the audience’s level of interest, experience, and knowledge about the topic.

1. **Write a conclusion**. A conclusion will summarize the description. Often a conclusion will describe how all the previously-described parts work together. You may also remind your audience of how this product or process will ultimately help your audience solve a problem (or enrich their lives!)

**Format**

Include design features to help the reader locate information and understand the product or process better: diagrams, headings, bulleted/numbered lists and other technical communication conventions you’ve learned about. Include a cover page which identifies the title, the writer, the audience and the date. The final paper should be at least 1000 words and should be single-spaced.

**Visuals**

You have two options here. First, you can develop your own visuals (a hand sketch is fine if you don’t know how to prepare one with a computer program). Or, you can use a “reference visual,” which is a copy of a published image. If you use a published image, be sure to cite the source and discuss any modification that image needs to fit your context. (For example, if you’re describing how a snowblower engine works, you might use an image from the manufacturer’s website rather than drawing your own.)