

Guide to the “How Stuff Works” assignment

Explanations of how things work (or don’t work) are common communication tasks for technicians and technologists. If you know the common strategies for physical and functional descriptions then this task becomes easier because there is a system you can use.

The system is based upon two main ideas:

- Categorization and division
- Cyclic iterations of
 - naming,
 - defining,
 - describing, and
 - illustrating

Categorization and division

If you think of air, land and sea vehicles as modes of transportation you have categorized.

If you break up modes of transportation into air, land and sea vehicles you have divided.

The structure for both categorization and division is common to most of you: it looks like a pyramid with the most general information on top and detailed information at the base (or ground) level. For a mechanical device it looks like this:

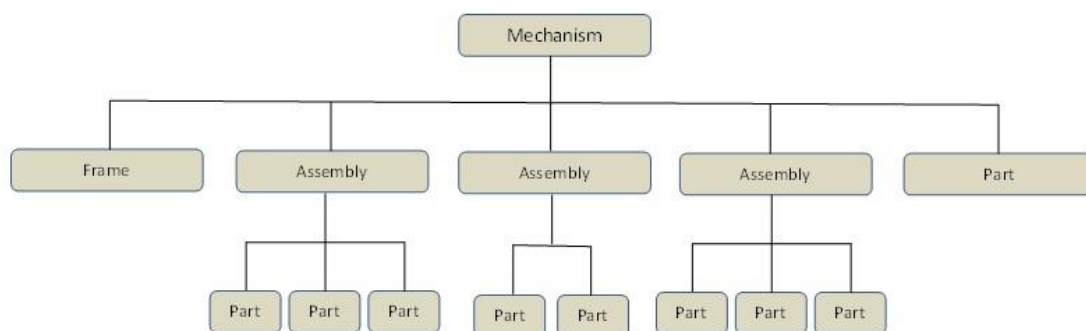


Figure 1: Typical structure in categorization and division

Cyclic iterations

If you have a good structure then the writing of the document, or execution of the plan, or the explanation of the process becomes a matter of following the steps you laid out in the thinking process. Organized thinking leads to organized communication (or it should).

At every one of the nodes in the diagram below (whether mechanism, assembly or part) you need only consider the following actions in relation to what you are describing:

- naming
- defining
- describing
- illustrating

If you were to replace the word mechanism with the name of the device and assembly with the name of the assemblage of parts and so on you will start to see the structure generate meaning. So just work your way through the structure naming the thing, defining the purpose of the thing, describing the thing and illustrating what you described. Then move on to the next thing in the structure and repeat.

Of course there is a little more to it than that – depending upon what you are describing - but not much. These extras are covered in class lectures and in consultations with me.

To get started on this assignment you should create a diagram of the structure first. Name the things at each node. Show it to me and we'll go from there.