



## Concept Mapping

### What is Concept Mapping?

A concept map is a graphical tool for organizing and representing knowledge. It uses circles (or other shapes) to enclose key concepts. The shapes, or concepts, are linked with lines and words showing the connections. As part of the process, you must precisely articulate those relationships. A concept map turns a collection of information into working knowledge that you can apply to a problem or situation. It also allows you to see where the gaps in concepts and relationships are and which ones need to be strengthened. This is a tool for developing thinking skills and organizing information that will be useful to you both as a student and as a physician.

### How do I Construct a Concept Map?

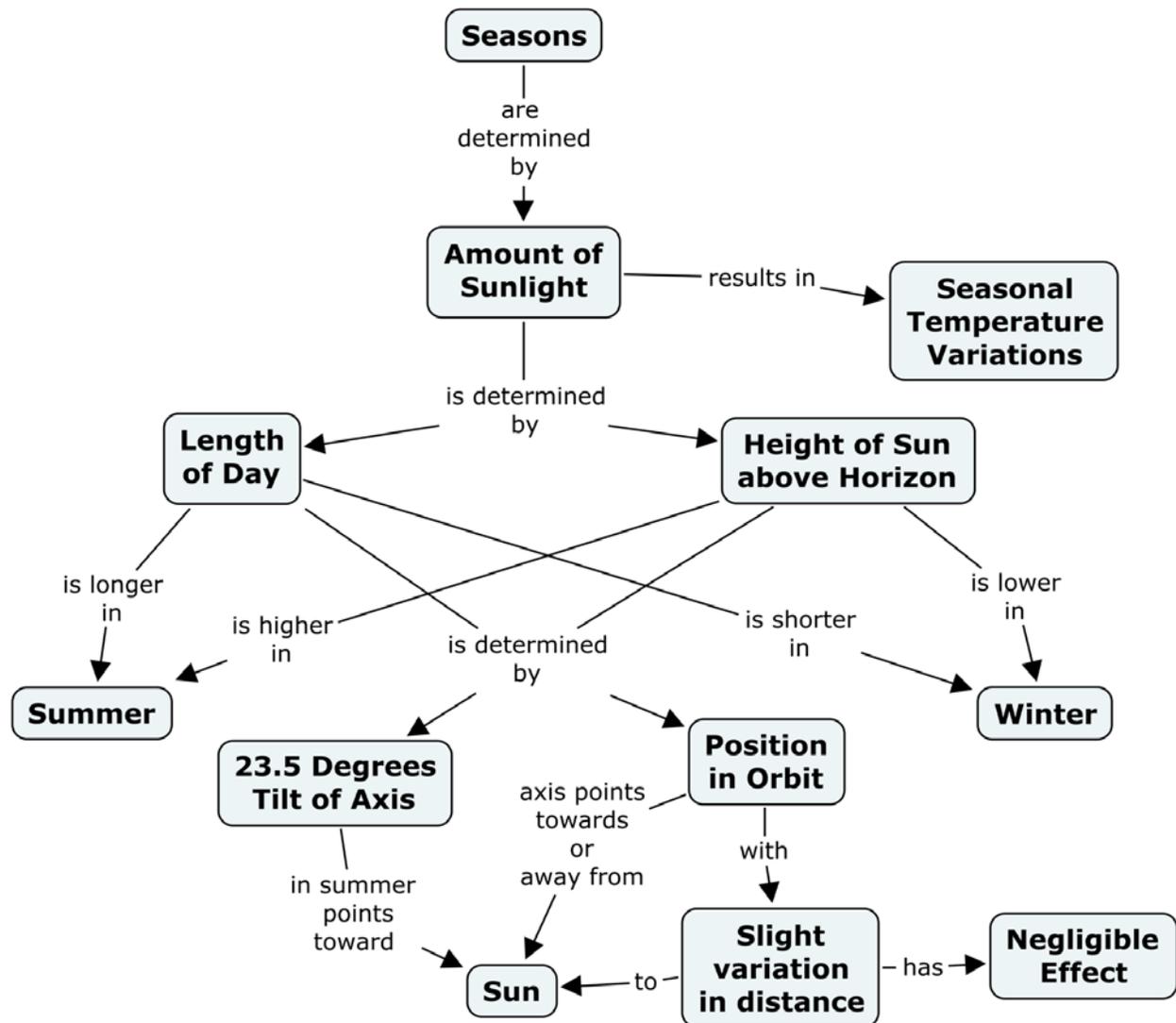
You can create a concept map on a piece of paper, post-it notes, or a whiteboard or download free software to create maps. With the software, you can link resources (photos, images, graphs, videos, WWW pages, etc.) to your map. You can work on your map independently or collaborate with other students. Discussing concepts and connections and sharing ideas with others can positively impact learning outcomes.

Here are some steps that may help you create a concept map:

1. Specify the focusing question, problem, or issue the concept map should help to resolve.
2. List the key concepts that apply to this topic, or domain. Then order this list from the most general or inclusive concept at the top to the most specific or least general concept at the bottom. This list may be approximate.
3. Construct a preliminary concept map, arranging the concepts in a way that makes sense to you. This is where post-it notes or a computer program comes in handy. You may find that you delete and/or add concepts as you arrange your map.
4. When you have a preliminary map arranged, begin working on the connections between concepts. Be as precise as possible in identifying linking words that describe the relationships between concepts. If you find that your connection takes a lot of explaining, it may be that either you don't fully understand the connection or that that connection needs to be restructured. When you are finished, every concept should be related to every other concept.
5. Revise concept, re-arranging concepts and refining connections for better clarity.

The website [www.cmap.ihmc.us/](http://www.cmap.ihmc.us/) has more information on constructing concept maps.

See other side for a sample concept map.



Novak, J.D. & A.J. Canas, The Theory Underlying Concept Maps and How to Construct and Use Them, Technical Report IHMC CmapTools 2006-01 Rev 01-2008, Florida Institute for Human and Machine Cognition, 2008.