Concept Maps

What is concept mapping?
Concept maps are graphical representations of a central concept and its associated information. They provide insight into students' cognitive organization of content as well as the connections they see between content areas. This can be an individual or group process, completed during class time or outside of class, and utilized before, during, and/or after a lesson or unit. Concept maps can be used as a learning activity and a form of assessment.

Why should you use a concept map?
Concept maps can accomplish several things:

- they allow teachers to assess students' prior knowledge and/or retained knowledge
- they help students organize existing and new information
- they pull relevant information into working memory, allowing the students to connect new information with existing information (known as priming)
- they help students understand a central concept
- they help students identify the interconnectedness of concepts
- they provide students with a tool that can aid in reflection and metacognition
- they can enhance understanding and retention of information when students have to transform information from one modality (e.g., text, oral lecture) into another form (i.e., visual representation)

What should I consider when using concept maps?
There are a few things you may want to keep in mind when using concept maps in the classroom.

1. How are you designing your lesson to incorporate use of concept maps? The design should be intentional and transparent to students, so they know why they're being asked to create a concept map.
2. If you are going to use concept maps as an assessment tool, how are you going to use it? If it's for a formal grade, how exactly are you going to measure student success?
3. How will students complete the concept map? Hand-drawn or using software? If you're expecting students to utilize software, make sure to provide a how-to tutorial ahead of time to ensure students know how to use the software. Otherwise, you'll be adding extra cognitive load to the task; that is, students will be focusing more on how to use the software and format within it than they might on the actual task at hand. Also, is the software free or will students need to purchase it?
4. You may want to provide an example of a concept map so students know what the format of one may look like. Some students may not know what the term "concept map" means.
5. Time: allow at least 15-20 minutes of time if students are working together in-person or synchronously online. For asynchronous courses, you'll want to ensure enough time that students can participate and collaborate with each other given that they're not all working at the same time.