Concept Maps

Description

Concept maps are spider web-like diagrams used to organize information about a concept or topic in an hierarchical manner. The concept or topic is written in the center or top of the map and related words or phrases are written on rays extending from the topic. Concept maps also go by the name of clusters and webs.

Purpose

Concept maps are used to organize information either during or after learning has occurred. They are often used to visually depict connections in a unit of study or across curriculum. In writing, concept maps are often used to organize ideas before beginning to write. In a unit of study that extends for a long duration of time, concept maps can be used for note-taking as the connections unfold. For this situation, the teacher may want to provide the map as a graphic organizer and students complete the information as it is learned.

Connection to Inquiry and Standards:

Students process what is learned during and after a unit of study and select important components of the concept or topic to visually represent in the form of a map. Students record their observations and ideas and place them in an appropriate order. Concept maps help students to make sense of phenomena that they encounter during both firsthand experiences and through reading, and place the information in hierarchical order. Pennsylvania Standards for Reading/Writing/Speaking/Listening connections include 1.1 Learning to Read Independently and 1.3 Reading, Analyzing and Interpreting Literature (comprehension and interpretation), 1.5 Quality of Writing (organization), and 1.8 Research (organization).

Materials

Paper or a planned concept map for students to complete and use as a graphic organizer.
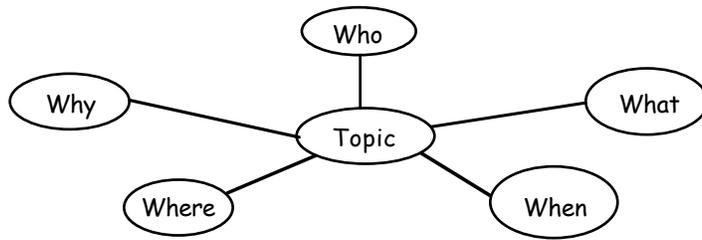
Procedure

Write the name of the topic or concept in the center or top circle/box on a sheet of paper. This is called the center circle/box whether it is placed in the center of the map or at the top. Students brainstorm as many words and phrases as they can that relate to the concept. Students select the words and phrases from their list that connect to the concept or other words that were listed. The selected words are written in other circle/boxes that are attached to the center circle/box by rays. Students can branch off of these circles/boxes with more specific words that relate to the concept or topic. The order should go from general in the center of the map to more specific.

Resources

Bromley, K.D. (1996). Webbing with Literature: Creating Story Maps with Children's Books. Boston: Allyn & Bacon.

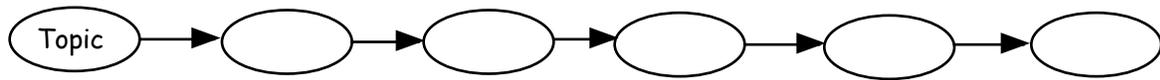Tompkins, Gail E. (1998). 50 Literacy Strategies: Step by Step. Columbus, OH: Merrill.

5W Map (Who, What, When, Where, Why)

Who
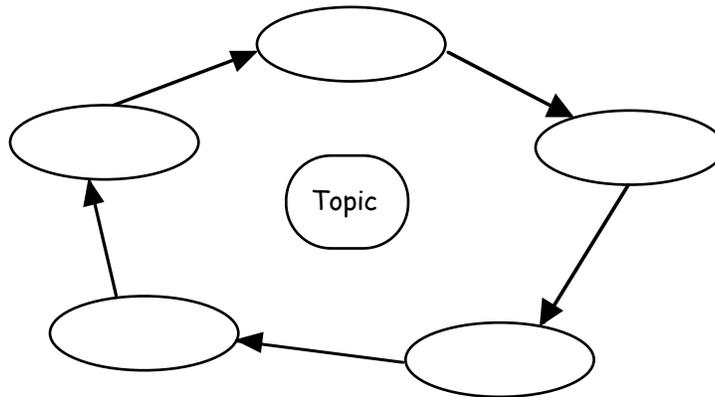Why   Topic   What
Where   When

Examples:
inventions/inventors
discoveries
space exploration
scientists/ history

Sequential Map

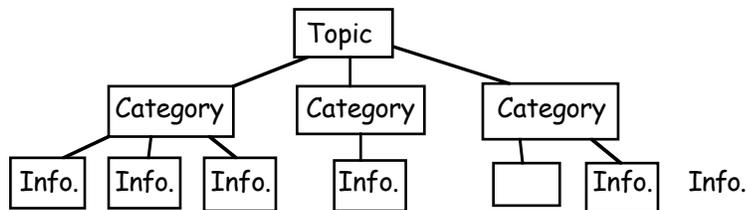Examples: time lines, schedules, sequence of events or steps

Topic → ◯ → ◯ → ◯ → ◯ → ◯

Cyclical Map

Topic

Examples:
water cycle
rock cycle
nutrient cycle
air cycle
ecosystems

Hierarchical Map

Topic

Category   Category   Category

Info. Info. Info.   Info.   Info.   Info.

Examples: food chain, heredity, food pyramid, dichotomous key

Concept Map

Category

Category

Topic

Category

Category