

Science Vocabulary: Word Map

Materials

Vocabulary Word Map reproducible
dictionaries

Skills Objectives

Use prior knowledge to find word meaning.
Use dictionary skills.
Use word association to enhance learning.

In science, students must be able to communicate ideas. An expansive vocabulary is critical to communicating those ideas effectively. A **Word Map** is a graphic organizer that helps students build their vocabulary. Rather than just memorize words and terms, students can use the map to help them retain learning, use vocabulary in context, and develop a framework on which to build new knowledge. A word map also works well as a prereading or postreading activity.

1. Vocabulary words are often remembered because of meaningful associations rather than repetition.

To demonstrate how a word clue or association can be used, tell students that

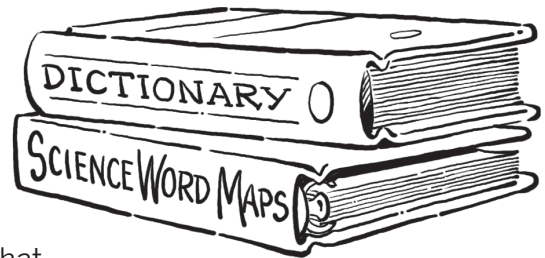
the prefix *tele-* means “at a distance”

and is used to describe instruments that operate over distance.

Prompt students to list words that begin with the prefix *tele-*, such

as *telephone*, *television*, *telegraph*, and *telephoto*. Write the words

on the board. Discuss how knowing the meaning of the prefix *tele-* offers a clue about the meaning of the word.



2. Draw a simple word map on the board, and give students a copy of the **Vocabulary Word Map reproducible (page 20)**. Distribute dictionaries, and write the following vocabulary list on the board (or use your own list):

combustibility, *malleability*, *conductivity*, *insulator*, *mixture*, *solution*, *solubility*.

3. Demonstrate how to fill in the Vocabulary Word Map. Write *combustibility* in the center circle. Ask a volunteer to use prior knowledge to guess the word’s meaning. Write the answer in the box labeled *My Definition*.

4. Then have students look up the definition of *combustibility* in a dictionary. Have them tell you what to write in the box labeled *Dictionary Definition*.

Name _____ Date _____

Vocabulary Word Map

Directions: Write a vocabulary word in the center circle. Then fill in each book about the word.

My Definition
Something that explodes

Dictionary Definition
The tendency to catch fire

Word
Combustibility

Association
The “b” in combustibility stands for “burn”.

Word Clue
Latin for “burned up”

Picture
[Drawing of a campfire]

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5. Point out that a dictionary often includes the origin of the word or root word. Knowing the origin of a word can help students remember the definition. For *combustibility*, the origin of its root word *combust* means “burned up.” Write the word origin or other clues in the box labeled *Word Clue*.
6. Have students suggest a picture that shows the meaning of the word. Draw one of their suggestions, such as a match or campfire, in the box labeled *Picture*.
7. The last box labeled *Association* is for any clue that will help a student remember the definition of the word. For example: *The **b** in combustibility stands for **burn***. Have students brainstorm several possible associations, and write one of their suggestions in the box. Review the completed map with students, and check for understanding.
8. Invite students to complete their own vocabulary word map using another word from the vocabulary list. After they finish, have students with the same vocabulary word compare their results.
9. Invite students to read their vocabulary word maps to the class. Discuss how word clues can help them remember vocabulary words.

Extended Learning

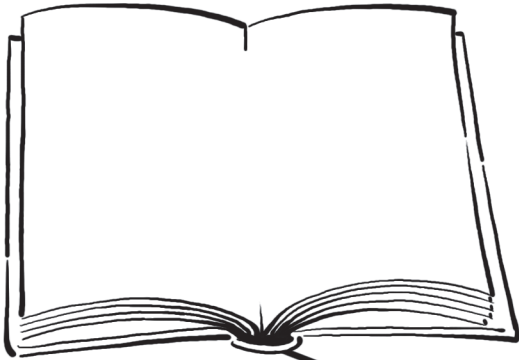
- Encourage students to complete word maps for new science vocabulary taught throughout the year. They can store the maps in a binder or a science portfolio.
- Use pairs of index cards to create vocabulary sets, one card with the vocabulary word and one card with the definition. Give half of the class vocabulary cards and the other half definition cards. Have students take turns asking questions to find their vocabulary word or definition match.
- Use a variety of word searches, crosswords, scrambled words, and other kinds of word puzzles to help students learn science vocabulary. You may go online to find resources, such as Jefferson Lab at: <http://education.jlab.org/vocabhangman>.



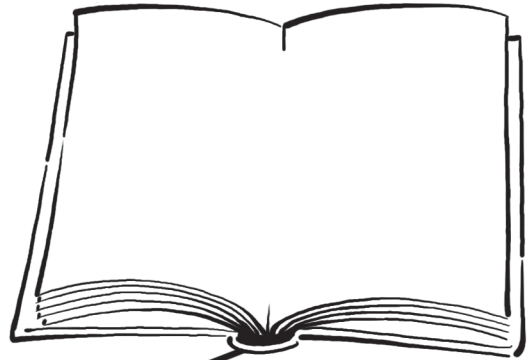
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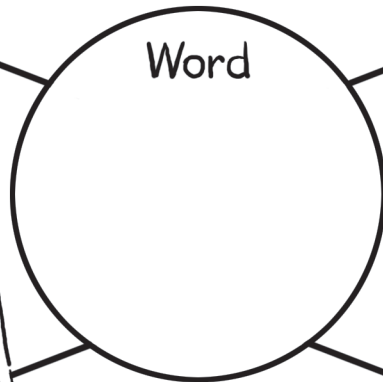
My Definition



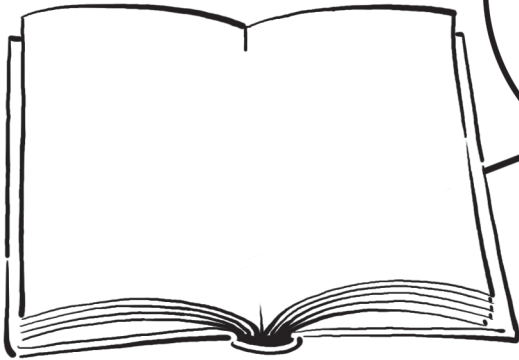
Dictionary Definition



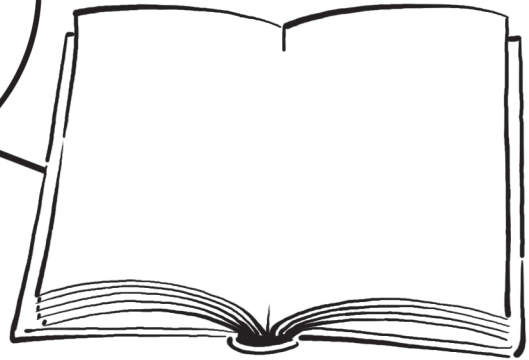
Word



Association



Word Clue



Picture

