

Module: Science

Lesson Title: List-Group-Label: Building Scientific Vocabulary

Objectives and Standards

Students will:

- Activate background knowledge on a specified topic
- Brainstorm words and phrases related to the science topic being studied
- Group words into specific categories/clusters
- Revise and edit categories/clusters based on the reading of a nonfiction text

Science Content 2014 GED® Assessment Targets	Science Practices 2014 GED® Assessment Targets
Express scientific information in words (SP1.a) Determine the meaning of symbols, terms, and phrases as they are used in scientific presentations. (SP.1.b) Content Area Vocabulary and Concepts from: <ul style="list-style-type: none"> • Life Science • Physical Science • Earth and Space Science 	Comprehending Scientific Presentations (SP.1)

Materials

- Science articles or texts
- *List-Group-Label* Activity Sheet

Instructional Plan

Overview

Activating prior knowledge about a topic assists in the development of a clearer understanding about concepts to be learned. In this lesson, students will use the List-Group-Label strategy to build science vocabulary and categorizing skills. This strategy provides students with a way to recognize the relationships between words and concepts using their prior knowledge about a topic. The list-group-label strategy can be used before and after students read.

Process

Identify a science article or text that students will read during the class period. Prior to sharing the article with students, write a cue vocabulary word on the board or chart paper. Have students brainstorm other words related to the vocabulary word. Write down all of the students’ ideas.

Lead a discussion about whether any words or concepts should be eliminated and if so, why. Remember, the ability to group and classify terms or concepts on the basis of their common elements is a higher-order

thinking skill. Students may initially need support in the identification of elements on which to base a grouping.

Divide the class into groups of 3 to 4 students. Have each group cluster the words and give each cluster a descriptive term. Have the groups share their clusters and give reasons for their choices.

Next, have students read the text. When finished, have the students revisit their clusters and change, add, or modify their clusters. Have students share the changes that they made and their rationale.

Close the activity by discussing how students can use list-group-label in their own reading and learning in order to better understand scientific text.

Key words should be selected from the reading selection for the lesson. To cover basic science concepts/principles, science text which deals with words such as the following would be appropriate for use in the GED® classroom:

- homeostasis
- nutrition
- pathogens
- ecosystem
- heredity
- symbiosis
- energy
- conservation
- forces
- waves
- chemical properties
- natural hazards
- organism
- sustainability
- non-renewable resources
- chemical reactions

Debriefing Questions

Have students answer the following questions regarding completion of the list-group-label activity:

- Why is scientific vocabulary important to understand?
- What types of criteria did you use to categorize your words/phrases?
- How did brainstorming assist you in the reading of nonfiction text?
- Did you find any of the words/categories that you brainstormed in the text that you read?

Assessments/Extensions

Have students use the list-group-label strategy prior to reading complex, science text. Provide time during the lesson for students to share their background knowledge on a specific scientific concept.

List-Group-Label

In the first column, list all of the words and phrases that are related to the topic. Once you have created your list, group the words based on their similarities. Label each group/category when you are finished.

List	Group and Label