Purpose:

In order to foster the acquisition of new vocabulary and terminology, students need a daily routine to identify, reflect on and extend their language skills. This lesson is meant to be a foundational, daily activity that can extend into later activities and assessments meant to reinforce the learning of new language. The lesson sets the following goals for students: create expectations for vocabulary acquisition, learn a heuristic for extending vocabulary knowledge, and practice a reflective analysis process for checking understanding.

Description of Activity:

Before the introduction of this basic skill, there should be an introduction of a daily homework routine in how effectively to address classroom reading. What are the expectations for daily reading? What purpose does daily reading serve? What are students responsible for bringing to class to demonstrate their understanding of the reading (See annotation lessons).

Activities To Cover Goals:

- (5 minutes) Present a core term for the discipline with a reasonable assumption that students will be familiar with the term; dictatorship, photosynthesis, tangent, denouement. Ask students to define the term.
- (5 minutes) Provide a non-linguistic representation of the terms and have students explain how the image represents the word either orally or in writing. The term should appear in a visual or kinetic form.
- (5 minutes) Provide students with a piece of writing that contains difficult or challenging terms. Begin reading the piece together, soliciting suggestions on the meaning of words. Have students track the terms that they do not understand or find hard to understand. Have them form a list of those words in the three-column chart (see attached).
- (10 minutes) Allow students to finish the piece, recording their own terms.
- (5 minutes) Once students have completed the reading, solicit the terms they found difficult; make a master list and then begin the process of reflection.
- (5 minutes) Demonstrate the reflective process where students guess at word meanings from prior knowledge and context.
- (5 minutes) Demonstrate the place students go to check understanding, record actual definitions, write examples, counter-examples, synonyms, or create non-linguistic representations.

Homework Assignment:

Assign the remainder of words for homework.

Follow-up Activities and Assessments:

Once students have completed daily work, different assignments can be used to reinforce language acquisition and extend students understanding of word relationships.

- Terminology:

- Semantic Mapping – Take a broad term that represents other terms like "climate change" and then create sub-categories for that term. Then list even more specific terms under those sub-categories to show the relationships of those terms.
- Word sorts – Provide words on 3x5 cards and have students sort the words around central categories and concepts. To make more difficult, have students create their own categories around which to organize the words.

o Vocabulary:

- X-Y Axis chart of related terms – Have students plot on a chart, a cluster of related terms pulled from their journals. Have the X axis represent the positive to negative denotation of the word while the Y axis represents formal to informal language. Plot related terms on this axis, placing the most general, benign terms toward the intersection of the X-Y axes.
- Word webs – Create word webs as visual representations of language in the room. Have students place words in relationships around other central key terms in the room. Use word webs in discussions and writing assignments.
- Synonym Fan – Create a fan similar to the foreign language fan, but instead of levels of translation for quizzing, create different levels of synonyms for more common words.

Checking for Understanding:

As students work, circulate to monitor their progress. Collect word journals periodically to check on student progress and to see that students are keeping up with the vocabulary in their reading.

Reflection:

There are two levels of reflection to the exercise. The first level asks students to engage in problem solving techniques to try and determine word meanings. The second asks them to look overall at language patterns and their own experiences in trying to define words. Do students, over time, begin to see more word relationships? Does their reflection about the process indicate frustration?

Adaptation for Different Levels:

The dual-entry journal is a simple technique that can work at any level. Different levels of students may require more guidance, fewer words and more checking to keep up with this particular study habit. Limiting the number of words and focusing on fewer key terms would make this adaptable for any level.

Dual-Entry Journals: Vocabulary/Terminology

As you read your homework assignment, keep track of the words and terms that are foreign to you, or would be difficult for you to explain or define. After you have finished your reading, guess at the definitions for those words based on either contextual clues, prior knowledge or root knowledge. Then check your own understanding and correct your initial definitions. Once you have completed your definitions, reflect on your guesses and what you learned through the process.

Word (PoS)	Definition (from context or prior knowledge)	Synonyms, examples, dictionary def or non-linguistic rep

Reflection: What do you notice about the author's choice of language, or about your own knowledge or understanding of the language used? What still confuses you?

Notes

Vocabulary Development

Preactive
Interactive
Reflective

SS-1. Concept Definition Mapping

What is it?

Concept definition mapping (Schwartz, 1988) is a strategy for teaching students the meaning of key concepts. Concept definition maps are graphic organizers that help students understand the essential attributes, qualities, or characteristics of a word's meaning. Students describe what the concept is, make comparisons, tell what it is like, and cite examples of it.

How could it be used in social studies instruction?

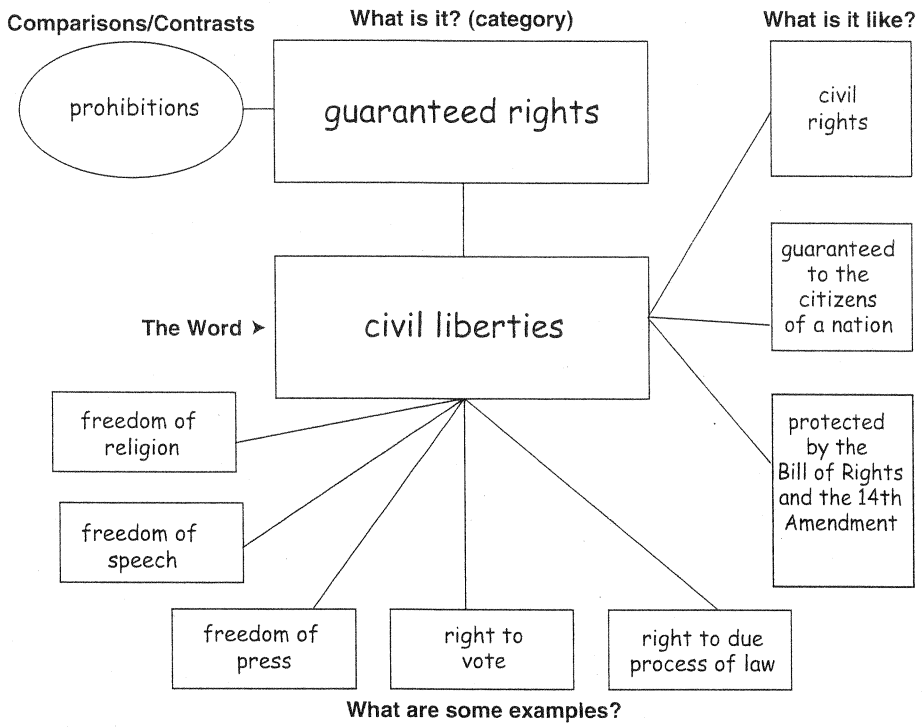
This strategy provides a structure for students to organize their understanding after they have completed an activity and/or read about a concept. It gives students an opportunity to illustrate their understanding and to extend their learning by citing examples from their own experiences.

How to use it:

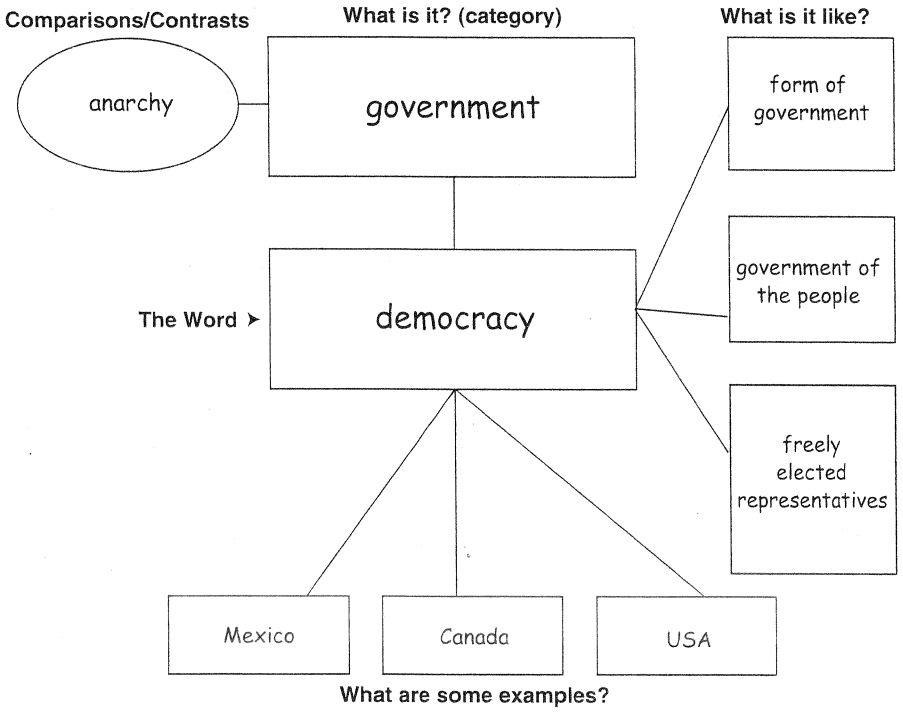
1. Display an example concept definition map.
2. Discuss the questions that a definition should answer:
   - What is it? What broader category does it fit into?
   - What can it be compared/contrasted to?
   - What is it like? What are its essential characteristics? What qualities make it different from other things in the same category?
   - What are some examples of it?
3. Model how to use the map.
4. Provide students with time to practice.

Notes

Vocabulary Development



Note. Adapted from Schwartz, R. M. & Raphael, T. E. (1985). A Key to Improving Students' Vocabulary. *The Reading Teacher, 39*(2).

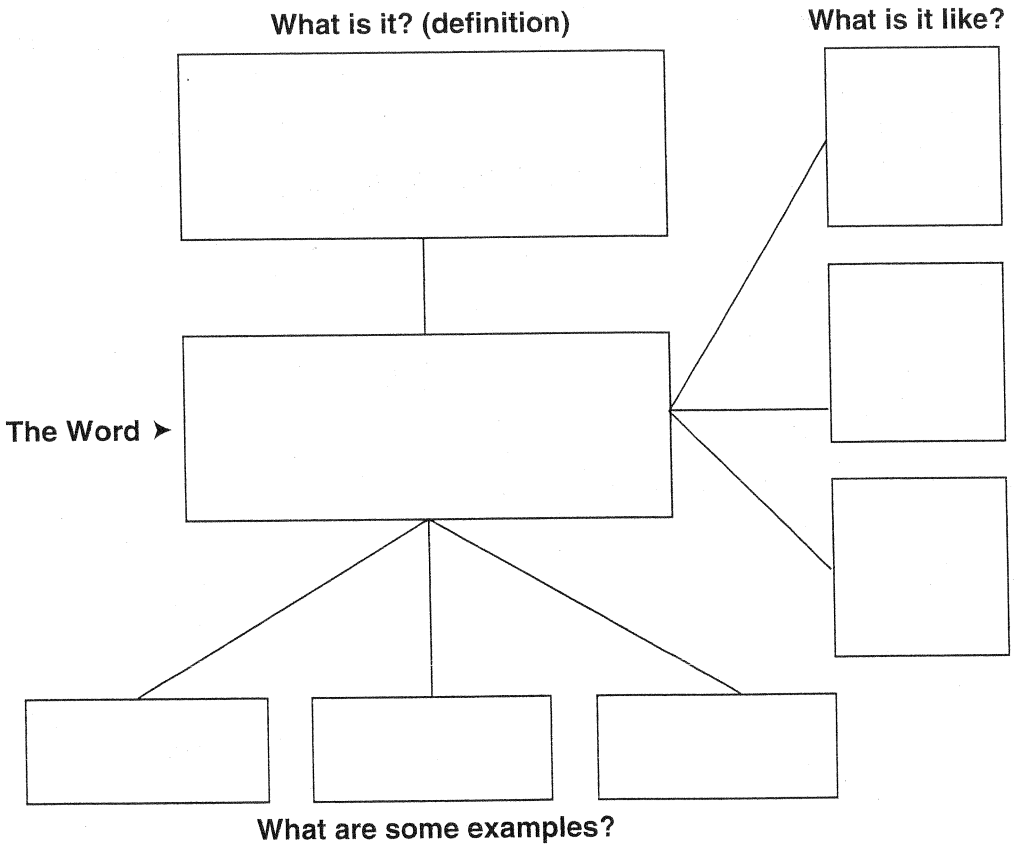


Note. Adapted from Schwartz, R. M. & Raphael, T. E. (1985). A Key to Improving Students' Vocabulary. *The Reading Teacher, 39*(2).

5. Instruct students to use the information from their maps to write a complete definition of the concept.

6. As a unit progresses, encourage students to refine their maps and to reflect on their learning.

Concept Map



Note. From Schwartz, R. M. & Raphael, T. E. (1985). A Key to Improving Students' Vocabulary. *The Reading Teacher, 39*(2).

Notes

Vocabulary Development

Preactive
Interactive
Reflective

S-6. Word Sort

What is it?

Word sorts (Gillett & Temple, 1983) help students recognize the semantic relationships among key concepts printed on 3" x 5" cards. This strategy can be used in two different ways. In a "closed sort," the teacher provides categories into which students assign the words. In an "open sort," students group words into categories and create their own labels for each category. Word sorts help students develop a deeper understanding of key concepts. They also can be used to develop the complex reasoning skills of classification and deduction.

How could it be used in science instruction?

This strategy can be used throughout a unit by creating a "word wall," which can be used at various times in various ways. Sorting the words can serve as an *engagement* activity to *evaluate* what students already know about the terms. The cards can be used to *explore* different categories into which the terms may be classified. The cards can be incorporated to help students *explain* their understanding.

How to use it:

1. List terms on 3" x 5" cards (one word per card).
2. Allow students, individually or in groups, to sort the words into categories. Depending on the concepts and students' level of understanding, the sorts can be "closed" or "open." Model this process for students by "thinking aloud" as cards are sorted.
3. As students become more proficient at classifying, they should be encouraged to complete "open sorts" and to find more than one way to classify the vocabulary terms. Classifying and then reclassifying helps students *extend* and refine their understanding of the concepts studied.

For further discussion of this strategy, see the *TRCA Teacher's Manual*, p. 89.

Notes

Notes

Vocabulary Development

Biome Word Sort

Tundra Biomes	Grassland Biomes	Desert Biomes
Permafrost	Savannas	Sahara
North Pole	Grasses	Cactus
Caribou	Zebras	Aloe plants
Lichens	Giraffes	Camels

Forest Biomes	Water Biomes
Conifers	Marine
Taiga	Phytoplankton
Deciduous	Freshwater
Canopy	Estuary
Tropical	

Vocabulary Development

Acids and Bases Word Sort

Acids	Bases
HCl	$NaHCO_3$
H_2SO_4	NaOH
H_2CO_3	KOH
	NH_4OH

Weather Word Sort

Tools For Measuring Weather	Clouds	Weather Disasters
Thermometer	Cirrus	Hurricanes
Barometer	Cumulus	Tornadoes
Wind gauge	Stratus	Blizzards
Wind vane		Floods

Notes

Notes

Informational Text

Preactive
Interactive
Reflective

S-7. Anticipation Guide/ Revised Extended Anticipation Guide

What is it?

Anticipation guides (Herber, 1978) are a set of carefully selected questions that serve as a pre/post inventory for a reading selection. They are designed to activate and assess students' prior knowledge, to focus reading, and to motivate reluctant readers by stimulating their interest in the topic. The revised extended anticipation guides (Duffelmeyer & Baum, 1992) facilitate text comprehension because they require considerable interaction between reader and text. They require students to paraphrase the text when reader-text discrepancies occur and to justify claims of reader-text agreement.

How could it be used in science instruction?

When incorporated during the *engagement* phase, these guides help students focus on and pay attention to critical information. During the *exploration* phase students can search for answers as they read. This strategy is helpful in *evaluating* students' misconceptions.

How to use it:

1. Identify concepts you want students to learn.
2. Create four to six statements that support or challenge students' beliefs and experiences (important points, major concepts, controversial ideas, or misconceptions) about the topic.
3. Prior to reading, students (individually or as a group) react to each statement, formulate a response (under the "me" column), and prepare to defend their opinions.
4. Ask students to *explain* their responses to each statement.
5. Ask students to read the selection to find evidence that supports or disconfirms each statement ("text" column).
6. Lead a discussion about what students learned from their reading.

For further discussion of this strategy, please see the *TRCA Teacher's Manual*, pp. 104–106.

Notes

Vocabulary Development

Preactive
Interactive
Reflective

SS-5. Semantic Mapping

What is it?

A semantic map is a visual tool that helps readers activate and draw on prior knowledge, recognize important components of different concepts, and see the relationships among these components.

How could it be used in social studies instruction?

This strategy can be incorporated to help students make connections to their prior knowledge at the beginning of a lesson and used throughout a social studies unit to help them refine and deepen their understanding. Students will be able to visualize how terms are connected and/or related. This strategy can be used to build connections between concepts.

How to use it:

1. Write the major concept of the lesson or unit on chart paper.
2. Instruct students to brainstorm a list of terms that relate in some way to the major concept.
3. Write the major concept in the center of another sheet of chart paper and circle it.
4. Encourage students to review the brainstormed list and begin to categorize the terms. The categories and terms should be discussed and then displayed in the form of a map or web.
5. Leave the chart up throughout the lesson or unit so that new categories and terms can be added as needed.

See also the *TRCA Teacher's Manual, 2nd Ed.*, pp. 82–84.

Category: Bonds

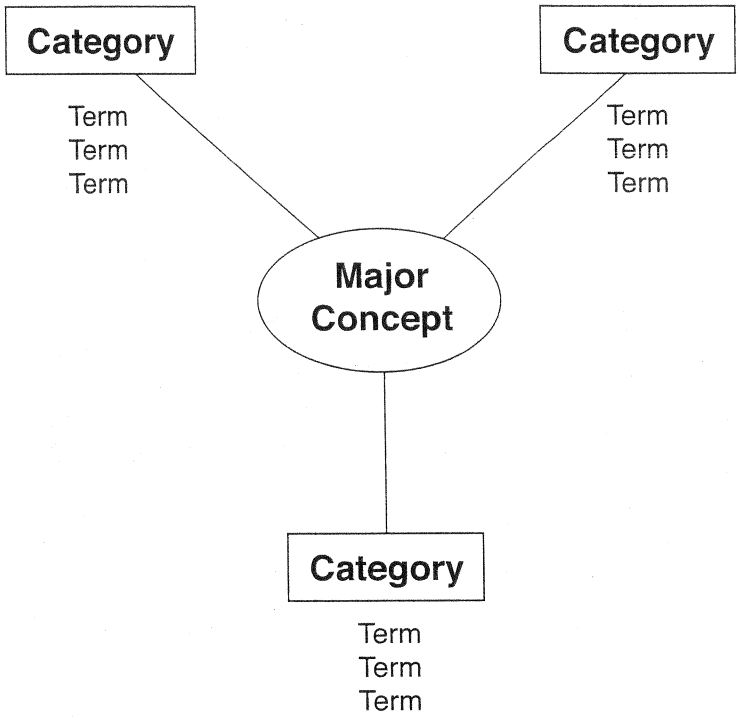
Terms	Features: Issued by corporations	Fixed interest Rate	U. S. Treasury	Local taxing authorities	More likely to default	Equal to a number of shares of stock
Bearer Bond	X	X				
Convertible Bond	X					X
Corporate Bond	X	X				X
Government Bond		X	X			
Junk Bond	X	X			X	
Zero Coupon Bond	X		X	X	X	

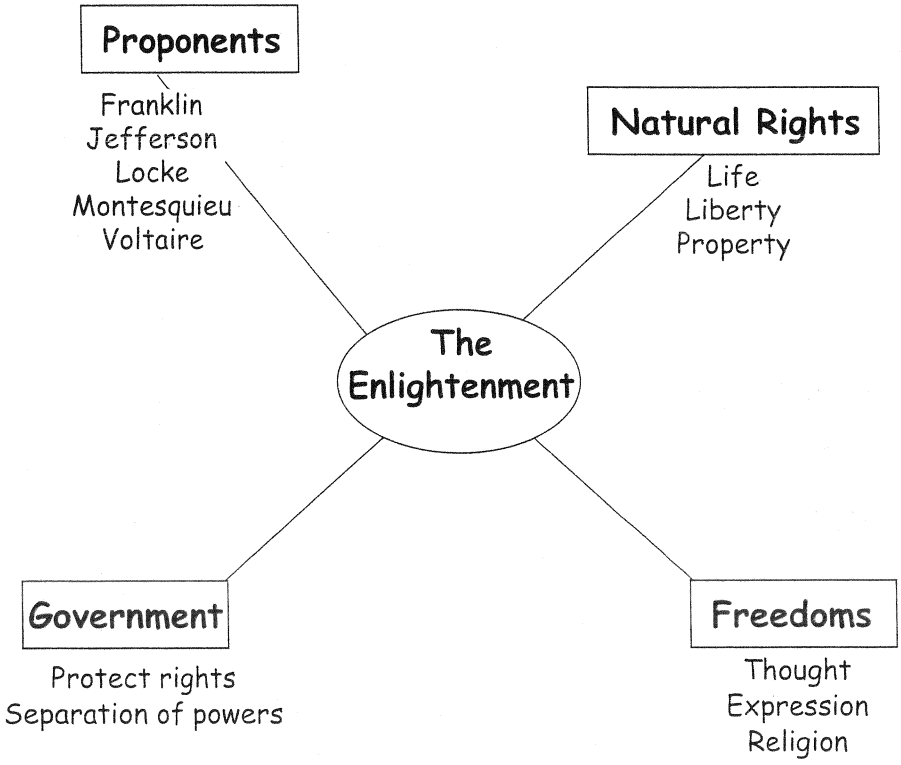
Category: States of the U.S.A.

Terms	Features: Landlocked	Midwest	West	Major mountain ranges	Population 5 million +
Alaska			X	X	
California			X	X	X
Colorado	X		X	X	
Kansas	X	X			
Michigan		X			X

Vocabulary Development

Semantic Map





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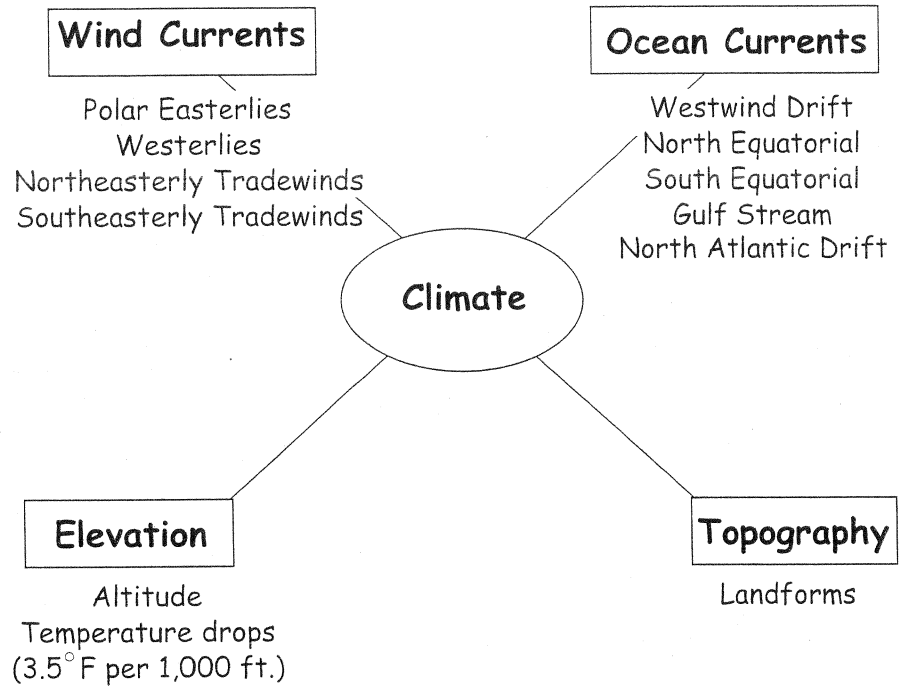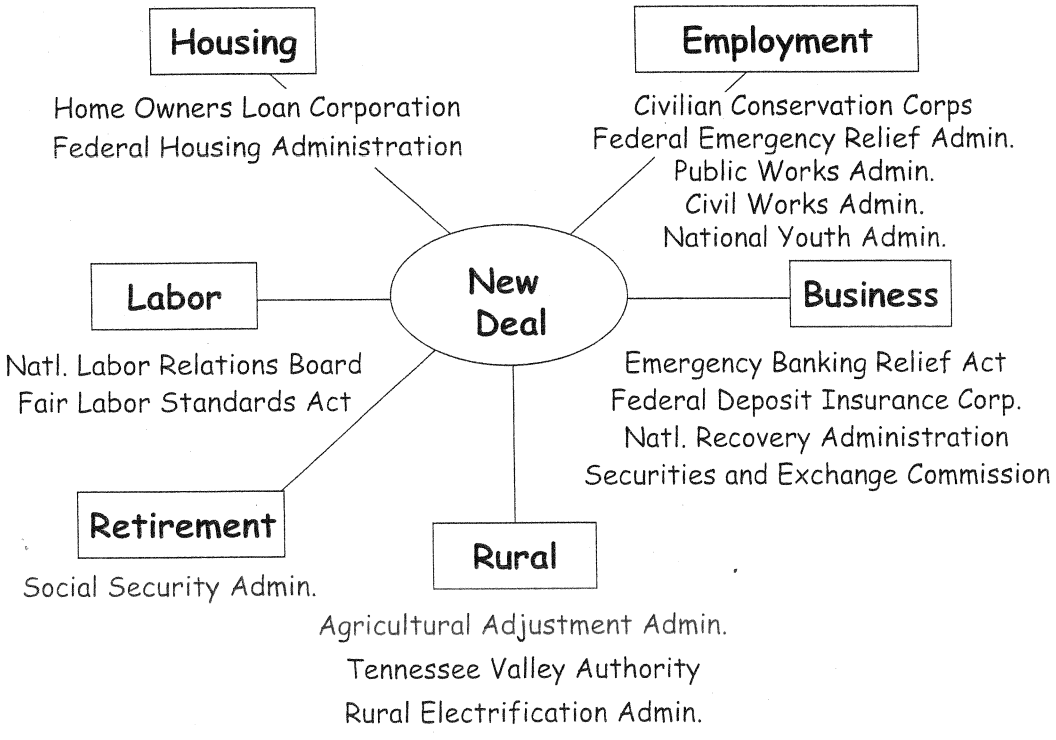
Vocabulary Development