

Session 6 – Teacher: Materials, Comprehension and Writing

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### **Objectives - Overall**

- The learner (1), text/material (2), teacher (3-7)
- LEARNER: Comprehension and learning
- TEXT: Layers of complexity
  - Teachers provide a bridge between the learner and text/information
- TEACHER: The importance of teaching to support transfer; vocabulary, materials, comprehension skills, and writing skills

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# Objectives - This Session (6)

- Review: The learner and the text
  Selecting important ideas that transfer
  Review: Teacher
  Review: Teacher
  Review: Teacher
  Review integrating vocabulary: Selecting words; Defining words; Using words
  Materials/resources
  Informational text: Comprehension and Writing
  Examples of Concepts what do students need to know?
  Setting the Stage
  Research Templates
  Comprehension and Writing Skills
  Unit development
  Problem-Based Learning

- \*\*\*See glossary for terms and explanations (sessions 1-4)

Review	
Learner     Processes information: Text-based (what the text says) and situation model	
<ul> <li>(what the text means)</li> <li>Requires prior knowledge and must attend to relevant information so that transfer occurs</li> </ul>	
Text     Presents information - Surface features (stated) and deep structure	
(unstated concepts)  • Contains layers of complexity: Structure, language, knowledge	
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Dada a Caralla da da	
Reduce Cognitive Load  • Working memory holds a small amount of information at one time	
Instruction must avoid overloading memory	
<ul> <li>TEACHER</li> <li>Evaluates text and supports learner</li> </ul>	
Reduce cognitive load by building and activating prior knowledge     Teach content well (depth) and provide opportunities to generalize	
to other settings (breadth) - transfer  • Help students retrieve knowledge automatically	
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Depth/Breadth of Instruction	
<ul> <li>Teach concept well with relevant information - connect known information with unknown</li> </ul>	
Provide students opportunities to detect differences and	
similarities of the same concept (patterns) across various situations.	

Vocabulary In	nstruction
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Selection	Defining/Meaning?	Organizing	Independent word learning
Words are necessary to understand the content  1. Are these other words for known vocabulary?  2. Do students need to learn the new idea – not yet known idea?	How will teachers teach the meaning of these words?	What are some ways for students to organize new vocabulary?	What are ways to build word consciousness or awareness? And how can we support students' independent vocabulary learning?
*Topic/concept *Academic words *Multiple-meaning words	*Student-friendly explanations *Synonyms/antonyms *Morphology *Cognates *Pictures, Demonstration, Realia	*Vocabulary notebooks/Pictures *Concept maps *Semantic gradients *Semantic feature analysis *Morphology tables	*Context clues *Thesaurus/dictionary *Morphological awarenes *Cognate awareness

## **Questions or Comments?**

https://www.nysmigrant.org/library/comprehensionPLC/teacherselectingmateria

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**Materials: Varied Resources** 

# **Rebellion and Rights:** Texts, Children's Literature, Poems Children's Literature \*Unspoken: A Story from the Underground Railroad by Henry Cole \*Harvesting Fredom: The Story of Cuser Chave: by Kathleen Krull \*Heart on Fire: Susan B. Anthony Votes for President by Anne Malaspina \*He Story of Raily Bridges by Robert Coles \*Malala's Magic Pencil by Malala Yousafzai

Children's Poetry
\*My Rights Go Hand in Hand with My Responsibilities by Young Church
\*I Look at the World by Langston Hughes

Textbooks/informational trade books

Iextronoss/miormational trade Dooks

\*Toggether We Sund Against Raciss" Black Lives Matter by Sonya Smith

\*Rosa Parks: National Geographic Readers

\*Abraham Lincoin: National Geographic Readers

\*I.Know My Rights: A Children's Guide to the Bill of Rights and Individual Liberty by Rory Margraf.

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Rebellion and	l Rights:	Other	resources
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Videos: Greta Thunberg: https://www.ted.com/speakers/greta\_thunberg

Magazines: Youth in Action by Time for Kids

Photographs, artwork, first person accounts and other primary documents

Visitors: Activists in the community

Field Trip (or virtual field trip): Museum that honors an activist

Websites/apps: https://www.icivics.org/

Classroom debates/simulations: Debate whether  $4^{\rm th}$  grade students should have voter rights

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## **Authors and Books: Science**

- Find Key Authors (trade books, magazines, reference books)
  - Franklyn Branley: https://www.childrensbookstore.com/contributor/ct-
  - Gail Gibbons: https://www.gailgibbons.com/teaching.html
  - Simon Seymour: <a href="https://www.seymoursimon.com/">https://www.seymoursimon.com/</a>
  - National Geographic: https://kids.nationalgeographic.com/books
  - Steve Jenkins: https://www.hmhbooks.com/author/Steve-Jenkins/1196697
  - · Let's Read and Find Out series:

https://elementalscience.com/blogs/news/list-lets-read-and-find-out-books-

Compr	ehe	ension	and	Writing
Skills -	to S	UPPO	RT Le	arning

 $Selecting\ Concept,\ Essential\ Questions,\ Establishing\ Purpose,\ Conducting\ Research,\ Integrating\ Comprehension/Writing\ Skills$ 

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## Science Standards: Topic Selection

- Physical Science (PS):
   Force and motion; Light and sound; Structures and properties of matter; Energy; Forces and interactions; waves;
- Life Science (LS)
   Animals, plants and their environment; Ecosystems; Environmental impact on organisms; Life cycles and traits (inheritance)
- Earth and Space Science (ES)
   Weather and climate; Processes that shape the earth; Star and the solar system;
- Engineering, Technology, and Application of Science

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#### Social Studies: Concept/Topic Selection

- Concepts in History Instruction:
  - Conflict: WAR and REBELLION
  - Movement: IMMIGRATION and MIGRATION
  - $\bullet$  Discovery : EXPLORATION AND INVENTION
- Concepts in Civics Instruction:
  - Citizenship: RIGHTS and RESPONSIBILITY
  - Governance: ELECTORAL PROCESS and BALANCE OF POWER

#### **Essential Questions**

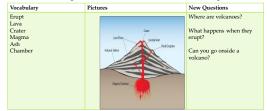
https://my.pblworks.org/projects?gclid=CjwKCAiAsYyRBhACEiwAkJFKorqS 197PwKX4FxT\_vL100NoDb1Yr-rLSqiZcOHHTemp-qfLeGHACxoCDloQAvD\_BwE&f%5B0%5D=subject\_projects%3A600

Questions guide research/learning:

- How can humans safely explore Mars?
  Why do we need laws?
- · Why do volcanoes erupt?
- Student-generated questions based on viewing photos/videos, listening to stories, looking at artifacts (rocks, feather, leaves, etc.)
- Maintain ongoing concept-question board (personal folder; chart paper, etc.)

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## Why Do Volcanoes Erupt?



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## Setting a Purpose – Public Product

- Brochures (more about)
- Area highlights for tourists, plant/tree identification in an area, more about animals, public health info,
   Interviews
- · Activist, someone who immigrated, climate specialist,
- Debates
   Explore and debate two sides of on issue: zoos, human rights
- Video or news articles
- Share the project with others
   Making a Difference
   Accessibility, climate
- $\bullet \ \underline{https://www.edutopia.org/article/real-world-applications-classroom-learning}$

Searching for Information	
<ul> <li>https://www.nysmigrant.org/resources/pd/Reading-Comprehension-of- Informational-Text%3A-Text-Features</li> </ul>	
Show students how to use Text Features (help locate information)	
<ul> <li>Table of contents/Index</li> <li>Headings and subheadings</li> <li>Glossary (and others)</li> </ul>	
Review Earthquake A-Z passage	
Tetre Laurquite 1 2 passage	
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Recording Answers to Questions	
Research Roundup:	
https://www.fcrr.org/sites/g/files/upcbnu2836/files/media/PDFs/student_center_activities/45_expository_text_structure/45_c024_research_roun_dup.pdf	
uup, pui	
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Main Idea	
https://www.nysmigrant.org/resources/pd/Reading-Comprehension-of-Informational-Text%3A-Main-Idea	
Main Idea:     https://www.fcrr.org/sites/g/files/upcbnu2836/files/media/PDFs/student_cente	
r activities/45 expository text structure/45 c017 main idea mania.pdf • Summarization:	
https://www.fcrr.org/sites/g/files/upcbnu2836/files/media/PDFs/student_center_activities/45_expository_text_structure/45_c020_super_summary.pdf	
Use these skills to teach writing	

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Provide informational text:

- 1. What is the topic?
- 2. What do the sentences tell us about the topic?
- 3. What is the main idea?

Determine main idea for paragraphs 1-4: Volcano (page 12 - 15)

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#### Volcanoes: Main ideas

- Paragraph 1:
- Paragraph 2:
- Paragraph 3:
- Paragraph 4:

Volcanoes: Summary	
What is this section tell us about volcanoes?	
Combine the main ideas (eliminate redundancy)	
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Text Structure Types	
Literary     Narrative (story maps)     Poetry	
Informational     Expository     Description	
Cause and Effect Compare and Contrast Sequence Problem and Solution	
Question and Answer     Persuasive/Argumentative	
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Text Structure	
<ul> <li>https://www.nysmigrant.org/resources/pd/Reading-Comprehension-of- Informational-Text%3A-Text-Structure</li> </ul>	
• Text structure:	
https://www.fcrr.org/sites/g/files/upcbnu2836/files/media/PDFs/student_center_activities/45_expository_text_structure/45_c023_text_structure_reflection.pdf	
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feed Structure	Explanation	200000	Signal Words		Graphic Organizers
Cause and Effect	Ideas, events, or facts are presented as causes in conjunction with the resulting autoanes or effects	accordingly     consequently     may be due to     so     thus	because     for this reason     nevertheless     therefore	• as a result • iffren • since • this led to	
Compare and Contrast	Similarities and differences are presented between two or more topics or concepts	offhough     but     edheror     in common     similar to	as opposed to     compared with     even though     likewise     yet	os well as     different from     however     not only	251
Description	Provides information about a topic	a number of     characteristics     in addition     is the     to flustrate	oppears to be     for example     in back of     fooks like	os in     for instance     including     such as	
Problem and Solution	Problem is presented followed by one or more solutions	a problem     because     in order to     one reason for     sleps involved	- a solution - for this reason - leach/fied to - since - this led to	accordingly     if then     may be due to     so that     thus	
Question and Answer	Question is posed and then followed by answers	how     one may conclude     when     why	how many     the best estimate     where	if could be that     what     who	
Sequence	Events are described in numerical or chronological order	- after - before - first - initially - read - on (dafe) - soon - today - while	afferward during following following following not long after preceding then until	dilast     frasily     mendately     meanwhile     now     second     flast     when	

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V	olco	inoes:	<b>Text</b>	Stru	ctures
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- Paragraph 1:
- Paragraph 2:
- Paragraph 3:
- Paragraph 4:

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Graphical Features	
Helps students understand the running text	
• https://www.nysmigrant.org/resources/pd/Reading-Comprehension-of- Informational-Text%3A-Graphical-Features	
miorinational Text/8-97-Graphical Lettiles	
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Volcanoes: Graphical Features	
• Types:	
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Unit Planning	
Planning template (see handout)	-
• Problem-Based Learning (see template)	
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Next Session: TEACHER, Cont.	
<ul> <li>Comprehension skills; writing skills, cont.</li> </ul>	
Unit development	
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Boss, S. (2017). Real-world applications of classroom learning. Retrieved from https://www.edutopia.org/article/real-world-applications-classroom-learning.     Kintsch, W. (1998). Comprehension: A paradigm for cognition. United Kingdom: Cambridge	
University Press.  • Lord, K.M. & Noel, A.M. (under review). Civic concepts: Opportunities to deepen elementary students' knowledge of democratic governance and citizenship.	
<ul> <li>Lord, K.M., Noel, A.M., &amp; Slevin, B. (2016). Social studies concepts: An analysis of the NAEP and states 'standards. Journal of Research in Childhood Education, 30, 389-405.</li> <li>National Academies of Sciences, Engineering, and Redictine (2018). How people learn II: Learners, contexts, and cultures. Washington, DC: The National Academies Press.</li> </ul>	
<ul> <li>doi: <a href="https://doi.org/10.17226/24783">https://doi.org/10.17226/24783</a>.</li> <li>Project Based Learning for all. Retrieved from <a href="https://www.pblworks.org/">https://www.pblworks.org/</a></li> </ul>	
<ul> <li>Sweller, J. (1994). Cognitive load theory, learning difficulty, and instructional design. Learning and Instruction, 4, 295 – 312.</li> </ul>	