School Librarians Advancing STEM Learning (SLASL)
2017 Cohorts

Selecting Text Sets

What is the School Librarians Advancing STEM Learning Project?

A project, funded by a federal IMLS grant, to elevate and expand the role of school librarians by **building their capacity as instructional leaders and partners to advance STEM learning**

SLASL Leadership and Practice Rubric

How is your SL a key partner in building your text set?

1. Define & Implement Collaborative Processes: SLs will understand their roles as collaborative thought partners and be able to define and implement strategies for successful collaboration with STEM teacher colleagues

1. Understand & Articulate the Relevant Learning Standards and Instructional Shifts: SLs will be able to communicate the role of literacy investigations in STEM in attaining to the CCSS, NGSS and C3 toward increased student achievement.

B. Build Inquiry-oriented Text-Based Investigations: SLs will be able to develop strategies and co-lead the development of student tasks that build literacy skills called for in the CCSS Science Literacy Standards.

2. Curate OER Collections: SLs can discover and organize quality OER for teaching and learning on their campus.

The Role of The Anchor Text in the SLASL project

The Anchor Text should

- teach content
- inspire inquiry
- be appropriately complex
- be relevant to students' lives
- have scaffolding opportunities
- be OER

The Role of The Anchor Text in the SLASL project

The Anchor Text should challenge your students' reading abilities. The text you choose should be appropriately complex.

The Role of The Anchor Text in the SLASL project

The Anchor Text should be worthy of multiple reads. The text you choose should be meaningful and relevant to students' lives.

John F. Kennedy Moon Speech - Rice Stadium

September 12, 1962

Movie clips of JFK speaking at Rice University: (.mov) or (.avi) (833K)

https://er.jsc.nasa.gov/seh/ricetalk.htm

The Role of The Anchor Text in the SLASL project

The Anchor Text should be accessible by ALL students. The text you choose should have opportunities for scaffolding.

https://commons.wikimedia.org/wiki/File:Chiang-Mai_Thailand_Workers-on-a-bamboo-scaffolding-01.jpg

The Role of The Anchor Text in the SLASL project

The Anchor Text should be openly licensed. The text you choose should be an OER. It should carry an open license or be in the public domain.

LICENSES	TERMS
cc (i) BY	**Attribution** BY — Others can copy, distribute, display, perform and remix your work if they credit your name as requested by you
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The Role of The Anchor Text in the SLASL project

Is this a high quality anchor text?

[Scorpion venom is toxic to cancer cells.](#)

Science News   *from research organizations*

Scorpion venom is toxic to cancer cells

Date: May 27, 2015

Source: Investigación y Desarrollo

Summary: In the venom from a scorpion from Colima, south-west state of Mexico, over a hundred proteins have been found and identified as having a "possible" toxic effect against cancer cells.

Share: f y G+ in + ✉

RELATED TOPICS   FULL STORY

https://www.sciencedaily.com/releases/2015/05/150527091547.htm

The Role of The Anchor Text in the SLASL project

Mark Alston 22 hours ago

What is the content standard you are addressing, and why is this anchor text appropriate for this content standard?

Content standard: Bio.1.1 Understand the relationship between the structures and functions of cells and their organelles.

Based on the complexity of the of the text, this anchor text would not be appropriate for a 10th grade Bio. class. My undersdtanding is that it assumes the reader has a knowledge of protiens and anthropods and cancer cells. This way above a tenth grade class. However, the content is very interesting and relates to all at many levels of understanding, when it comes to cancer.

Link   Reply   Edit   Delete

The Role of The Anchor Text in the SLASL project

Literacy standard: CCSS.ELA-LITERACY.RST.9-10.8 Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or technical problem.

"identified a "possible" toxic effect against cancer cells, reveals a scientific study."

The Role of The Anchor Text in the SLASL project

ATOS for Text Analyzer Results

The ATOS analysis was completed successfully, and here are your results.

Results:

File Submitted:	Direct Entry
ATOS Level:	12.6
Word Count:	550
Average Word Length:	5.1
Average Sentence Length:	23.9
Average Vocabulary Level:	5.3
Language selected:	English
Confirmation #:	1188601

10	10.46	11.42	12.01
11	11.20	12.28	13.05
12	11.90	13.10	14.10

The Role of The Anchor Text in the SLASL project

What grade is your class, and which quantitative and qualitative features of the anchor text make the anchor text grade-level appropriately complex?

This text is intended for a 10th grade course. I have used the informational text rubric to analyze that this text is **very complex.** While the text includes quotes and is written as a news article, the background knowledge and technical language makes it very complex for 10th grade biology students who are just beginning to build their science knowledge.

Text Complexity: Qualitative Measures Rubric

INFORMATIONAL TEXTS

Text Title: Scorpion venom is toxic to cancer cells   Text Author: Investigación y Desarrollo

	Exceedingly Complex	Very Complex	Moderately Complex	Slightly Complex
TEXT STRUCTURE	Organization: Connections between an extensive range of ideas, processes or events are deep, intricate and often ambiguous; organization is intricate or discipline-specific	Organization: Connections between an expanded range ideas, processes or events are often implicit or subtle; organization may contain multiple pathways or exhibit some discipline-specific traits	Organization: Connections between some ideas or events are implicit or subtle; organization is evident and generally sequential or chronological	Organization: Connections between ideas, processes or events are explicit and clear; organization of text is chronological, sequential or easy to predict
	Text Features: If used, are essential in understanding content	Text Features: If used, directly enhance the reader's understanding of content	Text Features: If used, enhance the reader's understanding of content	Text Features: If used, help the reader navigate and understand content but are not essential to understanding content.
	Use of Graphics: If used, intricate, extensive graphics, tables, charts, etc. are extensive are integral to making meaning of the text; may provide information not otherwise conveyed in the text	Use of Graphics: If used, graphics, tables, charts, etc. support or are integral to understanding the text	Use of Graphics: If used, graphic, pictures, tables, and charts, etc. are mostly supplementary to understanding the text	Use of Graphics: If used, graphic, pictures, tables, and charts, etc. are simple and unnecessary to understanding the text but they may support and assist readers in understanding the written text
LANGUAGE FEATURES	Conventionality: Dense and complex; contains considerable abstract, ironic, and/or figurative language	Conventionality: Fairly complex; contains some abstract, ironic, and/or figurative language	Conventionality: Largely explicit and easy to understand with some occasions for more complex meaning	Conventionality: Explicit, literal, straightforward, easy to understand
	Vocabulary: Complex, generally unfamiliar, archaic, subject-specific, or overly academic language; may be ambiguous or purposefully misleading	Vocabulary: Fairly complex language that is sometimes unfamiliar, archaic, subject-specific, or overly academic	Vocabulary: Mostly contemporary, familiar, conversational; rarely overly academic	Vocabulary: Contemporary, familiar, conversational language
	Sentence Structure: Mainly complex sentences with several subordinate clauses or phrases and transition words; sentences often contains multiple concepts	Sentence Structure: Many complex sentences with several subordinate phrases or clauses and transition words	Sentence Structure: Primarily simple and compound sentences, with some complex constructions	Sentence Structure: Mainly simple sentences
PURPOSE	Purpose: Subtle and intricate, difficult to determine; includes many theoretical or abstract elements	Purpose: Implicit or subtle but fairly easy to infer; more theoretical or abstract than concrete	Purpose: Implied but easy to identify based upon context or source	Purpose: Explicitly stated, clear, concrete, narrowly focused
KNOWLEDGE DEMANDS	Subject Matter Knowledge: Relies on extensive levels of discipline-specific or theoretical knowledge; includes a range of challenging abstract concepts	Subject Matter Knowledge: Relies on moderate levels of discipline-specific or theoretical knowledge; includes a mix of recognizable ideas and challenging abstract concepts	Subject Matter Knowledge: Relies on common practical knowledge and some discipline-specific content knowledge; includes a mix of simple and more complicated, abstract ideas	Subject Matter Knowledge: Relies on everyday, practical knowledge; includes simple, concrete ideas
	Intertextuality: Many references or	Intertextuality: Some references or	Intertextuality: Few references or allusions	Intertextuality: No references or allusions

The Role of The Anchor Text in the SLASL project

Lauren Schultz 2 days, 1 hour ago

What qualities of this anchor text allow for student-led investigation of the information?

The text is chunked by paragraphs, and each paragraph lends itself to a set of beginning "I Wonders" for students to investigate. For example, I wonder what is special about this particular scorpion as opposed to other types of scorpions? I wonder what led investigators to use scorpion venom for research in the first place --- is it used to treat conditions other than Parkinson's disease and types of Cancer? In addition to questioning, certain pieces of the text lend themselves to diagramming by students --- such as diagramming how the scorpion venom invades a cell.

Lori Zeman 19 hours ago

What qualities of this anchor text allow for student-led investigation of the information?

The article introduces the idea that part of the venom from a specific scorpion could be the future cure for cancer, Parkinson's, or possibly both. This idea in itself is highly intriguing and lends itself to students doing more research on the presented results. The article was published in 2015 so it would be a great task to give to students to determine if any more data has been discovered since the article was published. And if so, does it confirm the route the scientists were exploring or does it present any set backs on their initial findings.

The Role of The Anchor Text in the SLASL project

Tamryn Stark an hour ago

What qualities of this anchor text allow for student-led investigation of the information?

This text will allow for student-led investifation of the information due to the higher level vocabulary in the text. Higher level vocabulary gives students an oppurtunity to research the terms and make meaning of these "new" vocabulary terms. By allowing for student-led research, students build a sense of understanding of how to read and comprehend texts that have more difficult words in it rather than just giving up when they don't understand a term or two. Teachers can guide students with techniques on how to use this vocabulary for comprehension.

Kristen Ward 47 minutes ago

3.   What qualities of this anchor text allow for student-led investigation of the information?

One of the qualities that allows the text to have student-led investigation is the introduction of new or perhaps unfamiliar content like Parkinson's. Students reading this text may not be familiar with Parkinson's disease and the introduction of this disease would cause students to have to investigate what Parkinson's is and why someone with Parkinson's might be effected on a greater level.

The Role of The Anchor Text in the SLASL project

Kortney Kavanagh 4 hours ago

What aspect of this text is relevant to the lives of your students?

This text is relevant to the lives of our students because everyone has been directly or indirectly affected by cancer. I think that this could lead to great class discussion about the growing concern of cancer rates, and the importance of cancer research for our future. I think that this text will do a good job of pulling the students in and getting them interested, as well as leading to further inquiry on what other research is being done.

Christina Segura 5 days, 2 hours ago

What aspect of this text is relevant to the lives of your students?

The Scorpion text is relevant to the lives of students because no student is exempt from knowing someone that has been diagnosed with cancer. Students of today will be the ones that help find cures to cancer and other diseases. The text shows that items in our lives that we may fear have an important role in our future.

The Role of The Anchor Text in the SLASL project

Kristen Johnson an hour ago

What aspect of this text is relevant to the lives of your students?

The text is relevant in that it involves

- Research for the treatment of Parkinson's disease and cancerous lymphoma cells. Students may be somewhat familiar with persons, family members or celebrities, suffering from Parkinson's disease and various types of cancer, maybe not specifically lymphoma. Inquiry in those types of diseases and those effected may be a result.
- Relations between Mexico and the United States. The research is funded and located in Mexico and results are shared worldwide, possibly resulting in further inquiry of U.S. & Mexico relations based on the current political climate and media coverage.

Laura Armstrong 53 minutes ago

What aspect of this text is relevant to the lives of your students?

Cancer has probably affected many 10th graders in some way or another. By that age, I assume most students have either been directly impacted by cancer within their family or friends, or they know of someone who has or had cancer. I am a 10th grade teacher and have several students who want to go on to become doctors and surgeons. Several of them even speak of oncology or finding a cure for cancer. These students want to make a difference in our world and solve many of its problems, one being cancer. I think this article would excite students and encourage them that there is hope for curing cancer. It would make them interested in digging deeper into the text and continuing their personal research after they finish reading the article.

The Role of The Anchor Text in the SLASL project

Justin Pierce 2 days, 1 hour ago

How will you scaffold access to this text through the use of supports and other texts?

Being mindful of this _very complex_ text it would be essential to break down vocab and investigation into categories for discussion. Separating between the scorpion, it's venom, and how the venom's proteins function within a cancerous context could open up literacy strategies to support the text making sense as a cohesive work. The text seems as though it ties in with the literacy standard as students will reason whether the information provided supports the research towards the functions of cells surrounding cancer and parkinsons. Looking at the content standard though this seems more like a support text rather than an anchor as it diverges into other issues around cell functions.

Amy Moore 14 hours ago

How will you scaffold access to this text through the use of supports and other texts?

This text is very heavy in foreign vocabulary. To scaffold this definitions of vocabulary and usge of those words in approachable ways would be needed to help students better understand the article.

Another strategy might be to include other articles that are more approachable but still use some of the vocabulary in a way that is easier to approach.

Last a strategy that can help is having the students read out loud and chunk this article in the more manageable parts to help them service the meaning better.

Also annotating as they go to pull out important parts and make notes in the margins to help them simply the meaning would help many students understand this text better.

The Role of The Anchor Text in the SLASL project

Keiauda Tennant 3 hours ago

How will you scaffold access to this text through the use of supports and other texts?

This text is obviously very complex, so scaffolds would be needed even for my Honors level students to be able to fully understand the text. I would make sure to have already covered key science vocabulary within the text and I think I would separate students into groups and have them complete a Say, Mean, Matter chart where they are essentially picking important phrases or sentences from the text and deconstructing them. This would allow for student discussion on what is important and from there they can discuss what does it say, what does it mean, and why does it matter.

The Role of The Anchor Text in the SLASL project

What are the initial licensing rights to this document and why do you feel it can be considered <u>open license</u>?

https://translate.google.com/translate?hl=en&sl=es&u=http://invdes.com.mx/&prev=search

Building a Text [Set](#)

Part X: Text Set Description *(used to analyze the purpose and goal of each text they provide to the students)*

Text Title & Hyperlink	Text Purpose (discuss complexity of the text along with its purpose/goal)	Text-Dependent Questions (created by the teacher/librarian to help students analyze the text in a specific sequence)	Accommodations for Diverse Learners
ABC Anchor Text	This is my Anchor Text, designed to [provide science content about cellular organelles while provoking student engagement around the essential question]. The ATOS level of the text is [an 11.27, which is appropriate for the middle of a 10th grade year.] Linked here is the [Qualitative Analysis of the Complexity.](#)	[1. What question did the author seek to answer? 2. How did she go about her inquiry? 3. What is her primary claim? 4. Did she provide specific and useful evidence? 5. In your opinion, what is the strongest evidence provided?]	[1. Tier Two words will be chosen ahead of time and a definition will be added as footnotes to copies of the text. 2. Specific chunks will be chosen ahead to support students in breaking the reading down into manageable sections.]

Building a Text Set Collaboratively

The search for resources begins with a need/question. **What probing questions would you (the SL) ask a teacher in order to determine the best possible resources to meet this need/question?**

Building a Text Set Collaboratively

What are your "go-to" places to look for resources? For example, where would you start a search for science resources? For math resources? Do the STEM areas present unique issues for you as a curator?

Building a Text Set Collaboratively

When a teacher is looking for a text set of various resources about the same topic, what types of resources would you curate and why?

Building a Text Set Collaboratively

What are some of the challenges you have encountered when curating resources for **different** teachers? What are the challenges you have encountered while curating **OER** resources for this project? How do we **overcome** these challenges?

March 2017	**Webinar 2 - Organizing Text Sets and Supporting Inquiry**
	            Wednesday March 15 7-8:00pm
	      • **Watch 15 minute recorded session on selecting supporting texts by Monday March 13th**
	      • **Comment on Discussion Post by Tuesday March 14th**
	
	(Complete Template Part X for feedback by Wednesday April 5)

April 2017	**Webinar 3 - Collaborative Implementation**
	            Wednesday April 19 7-8:00pm
	      • **Comment on Discussion Post by Tuesday April 18th**
	
	(Complete Template Part XI for feedback by Friday May 5th, but BEFORE implementation)