



# 6<sup>th</sup>-8<sup>th</sup> Guidance for Literacy Task Design in the Science/Technical Subjects' Classrooms

(Literacy tasks have reading and writing about science/technical subjects at the core of all multi day lessons/units).



# 6<sup>th</sup> – 8<sup>th</sup> Grade Literacy Task Design

The purpose of providing guidance for designing literacy tasks is to provide classroom teachers with crucial steps in designing high quality student learning tasks that integrate reading and writing aligned with the standards. This document provides guidance into the necessary steps of task design. Literacy tasks should be a part of multi-day lessons and units in order to integrate and implement the standards.

## Steps for Designing Literacy Tasks

### Step 1

#### Determine the focus of the task.

Standards can be clustered to help drive a number of key components of multi-day lessons/units. (For example, essential questions, assessments, writing to reading prompts, etc.) Examples of ways standards can be clustered for a task are as follows:

#### Possible Combined Standards for a Literacy Task Prompt

- When reading texts, analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment.  
**Clustered Standards: (RST.1 & 6)**
- Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph or table).  
**Clustered Standards: (RST.1 & 7)**
- Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.  
**Clustered Standards: (RST.1 & 9)**
- Using evidence, distinguish among facts, reasoned judgment based on research findings, and speculation in a text.  
**Clustered Standards: (RST.1 & 8)**
- Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.  
**Clustered Standards: (RST. 1 & 3)**

**RST: Reading for Science/Technical Subjects**

**Step 2**

**Determine anchor text (focus text) and coordinating texts/multimedia to accompany the anchor text.**

<b>Literacy Task Texts</b>	<b>Anchor Text</b>		<b>Coordinating Text</b>		<b>Coordinating Text</b>
	 Textbook Segment	+	 Article	+	 Video
	<b>Anchor Text</b>		<b>Coordinating Text</b>		<b>Coordinating Text</b>
	 Article	+	 Primary Source	+	 Textbook Segment

### Online Resources for Texts

There are a number of resources available for texts online to coordinate with your classroom materials.

The following are a few:

- **Illinois Classrooms in Action Science Resources** – This site provides teachers with a one-stop shop of all resources for Illinois Science Teachers: <http://www.ilclassroomsinaction.org/ngss.html>
- **Newsela** – [www.newsela.com](http://www.newsela.com): Newsela is a free resource that presents articles on a range of topics such as: War and Peace, **Science**, Kids, Money, Law, Health, Arts, and Sports. The system enables you to convert the articles into higher or lower Lexiles so you can use them with any grade from 3-12.
- **Bozeman Science** - <http://www.bozemanscience.com/> Paul Anderson has compiled a series of explanatory NGSS videos. This link will take you directly to the page where he has posted an 8 to 20-minute video for every Scientific and Engineering Practice, Crosscutting Concept, and Disciplinary Core Idea including a description of the progression of each element from Kindergarten through Grade 12.
- **Science News for Kids** - <https://www.sciencenewsforstudents.org/how-to-use>  
*Science News for Students* is an award-winning online publication dedicated to providing age-appropriate, topical science news to learners, parents and educators. In addition, many additional resources accompany stories to boost their impact in classrooms and on overall science literacy.

**Step #3**

**Develop questions for each text using the reading for science/technical subjects' standards for 6<sup>th</sup>-8<sup>th</sup> grades. Question Guidance:**

<http://achievethecore.org/page/46/complete-guide-to-creating-text-dependent-questions>

**Question Consideration:** Transform the following *Reading for Science/Technical Subjects Standards* into questions/tasks/activities throughout the task/lesson/unit.

RST.1	<input type="checkbox"/> Cite specific textual evidence to support analysis of science and technical texts.
RST.2	<input type="checkbox"/> Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.
RST.3	<input type="checkbox"/> Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
RST.4	<input type="checkbox"/> Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to <i>grades 6-8 texts and topics</i> .
RST.5	<input type="checkbox"/> Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.
RST.6	<input type="checkbox"/> Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.
RST.7	<input type="checkbox"/> Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).
RST.8	<input type="checkbox"/> Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.
RST.9	<input type="checkbox"/> Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

By the end of grade 8, read and comprehend science/technical texts in the grades 6-8 text complexity band independently and proficiently.

## Step 4

### Determine what type of writing will be required of students to record information and show understanding of the content.

Writing in the science/technical subjects classroom should happen routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences (WHST.10).

When creating culminating task/writing prompts, teachers can return to step 1 to view clustered standards for ideas. The standards require students to be able to write arguments (WHST.1) and informational/explanatory (WHST.2) writings. Writing can appear in many forms – from note taking, to short summaries, to learning logs, essays, a quick write or a formal report.

See the following link for the 6<sup>th</sup> -8<sup>th</sup> Writing Standards: <http://www.corestandards.org/ELA-Literacy/WHST/6-8/>

## Task Template for Culminating Tasks

The following task frame is **one way** to design a prompt where students can show their learning after reading/researching of sources

Today you will research \_\_\_\_\_ by reading \_\_\_\_\_ and watching a video clip about \_\_\_\_\_. As you review these resources think about the following question:  
“ \_\_\_\_\_?”  
Gather evidence from each source to answer the question.

### Classroom Sample

Today you will research electricity and consider some of the methods used in science texts and videos to support different purposes. First you will read an article that explains some general principles of electricity. Next you will watch a video about fun ways to learn about electricity circuits. Finally you will read an article that explains how different materials conduct electricity. As you read/review these sources, think about the purpose of each and the role that explanations, demonstrations, and/or descriptions play in communicating that purpose. Write an essay that informs the reader about what you learned. Use evidence from each source.