High School Research and the Senior Research Paper

Meeting the "college readiness" goal of the Common Core State Standards requires that students undertake the challenge of exploring a research question in depth and produce sophisticated expository writing in response.

Sample research paper assignments in the Common Core Curriculum Maps offer students in grades K-12 multiple opportunities to develop and strengthen the execution of the research process. Research is introduced as early as kindergarten and is encouraged throughout elementary school. In middle school, students learn the basic steps of the research process. In high school, sample activities emphasize different aspects of the research process in a progression that prepares students for the twelfth grade research paper:

- In grade nine, two assignments emphasize the defining and refining of research questions.
- In grade ten, in which teachers have a choice of four units, each unit contains a research assignment that emphasizes the synthesis of information gathered from various sources.
- In grade eleven, students must demonstrate the ability to "adjudicate" among sources (i.e., carefully select relevant and useful sources, ignore others, and/or discuss why some sources aren't reliable or useful).
- By grade twelve, students must do all of these things, as well as anticipate questions or counterclaims, and address them with confidence.

In twelfth grade, teachers and students may use the research process described below as a guide to writing a college-level, thesis-driven research paper of at least 4,000 words. Teachers may ask students to apply this process to any of the sample assignments in any of the six units, or may suggest another topic for students to research throughout the year. (In other words, teachers may use this guide in conjunction with—or independently of—the research assignments included in the sample activities for grade twelve.) Teachers and students are strongly encouraged to consult *The Concord Review* (http://www.tcr.org/tcr/essays.htm) for excellent examples of research papers written by high school students.

The independent research that students conduct in preparation for writing the paper exposes them to the variety and complexity of informational texts the standards prescribe. If using this guide independently of the ELA units (e.g., to guide research in history or another content area), teachers may wish to refer to the Common Core State Standards for English Language Arts and History/Social Studies, Science, and Technical Subjects.

Research Process:

A. Students **conduct a study/survey** of primary sources and critical secondary sources on a teacher-selected topic area (e.g., the Scientific Revolution). Scholarly sources should serve as models for students as they develop an understanding of

- the structure and depth of the formal research paper, as well as the research methods and writing techniques required for producing them. The topic area should be of enduring interest, not ephemeral in nature. (RL.11-12.1, RL.11-12.2, RL.11-12.3, RI.11-12.1, RI.11-12.2, RI.11-12.3, W.11-12.8)
- B. Students **develop a research question** for independent study. The question may be related to ELA or to another content area, such as art, history, or science (e.g., "How did the Scientific Revolution in sixteenth-century Europe affect the literature and literary nonfiction of seventeenth-century Europe?" "What roles did Ptolemy and Copernicus play in sparking the Scientific Revolution?" "The Scientific Revolution in Art? The Case of Leonardo da Vinci"). If the question is related to another content area, students should work with both an ELA teacher and a teacher from the other content area to develop the topic. (W.11-12.7, W.11-12.8)
- C. Students **submit a research question** for the instructor's approval. (W.11-12.7, W.11-12.8)
- D. Students **conduct research**, putting a priority on using primary sources and learning effective methods to mine such sources for information. When secondary sources are needed, teachers may instruct students in the use of academic data sites (an excellent source is: http://www.jstor.org/). Teachers can stress the difference between periodicals and encyclopedic sources that can provide background information and publications and books that are academic in nature. It is important to underscore the importance of analyzing as many primary sources as possible (versus relying uncritically or solely on secondary sources). (RL.11-12.1, RL.11-12.2, RL.11-12.3, W.11-12.7)
- E. While reading the sources, students **take notes**. (Teachers should determine the appropriate methods for their students, such as note cards, etc.) (W.11-12.7, W.11-12.8)
- F. Students **submit notes** (note cards or an annotated bibliography) for review. (W.11-12.7, W.11-12.8)
- G. Students, with their instructor's help, categorize their notes and **identify areas** where more research is needed. (W.11-12.7)
- H. Having refined the research question as necessary, students write a preliminary thesis statement and draft outline. (W.11-12.4, W.11-12.5, W.11-12.6)
- I. Based on discussions with their teacher, students **refine their thesis statements and outlines**. (W.11-12.5, W.11-12.7)
- J. Students compose the first draft of their papers. The rough draft should include:
 - a. Title Page

- b. Abstract
- c. Table of Contents
- d. Introduction, including thesis statement
- e. Body, including details that support the thesis statement
- f. Conclusion
- g. Endnotes
- h. Illustrations (optional)
- i. Appendices (if necessary)
- j. Bibliography

(W.11-12.1 or W.11-12.2, W.11-12.4, W.11-12.5, W.11-12.6, W.11-12.7, W.11-12. 8, W.11-12.9W.11-12.10)

Students **revise their work** after soliciting feedback from their teacher and peers. Students may wish to ask a teacher from a related content area for further input. (W.11-12.1 or W.11-12.2, W.11-12.4, W.11-12.5, W.11-12.6, W.11-12.7, W.11-12. 8, W.11-12.9W.11-12.10)

- K. Students edit their final drafts. (W.11-12.5, L.11-12.1, L.11-12.2, L.11-12.3)
- L. Students **submit final drafts**. (W.11-12.1 or W.11-12.2, W.11-12.4, W.11-12.5, W.11-12.6, W.11-12.7, W.11-12. 8, W.11-12.9W.11-12.10)
- M. Students **develop a speech**, **PowerPoint**, **or other kind of presentation** in which they summarize their findings and answer questions from their classmates or other panel members (i.e., parents or community members).(W.11-12.6, SL.11-12.4, SL.11-12.5, SL.11-12.6)