



Curriculum-Framing Questions

Creating Effective Questions

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Why Do We Have Curriculum Framing Questions?

- The use of technology in projects should:
 - enhance students' learning
 - help students be more self-directed
 - promote creativity
- Projects should provide students with more challenging tasks and **questions** than they experience in traditional projects.
- Good projects engage students in **reflection**, **evaluation**, **analysis**, and/or **synthesis** of the subject matter—not just identification, definition, or reiteration of facts.

Applying technology to traditional projects does not necessarily lead to greater student learning.

Why Do We Have Curriculum Framing Questions? (cont.)

- “Expert knowledge is organized...Their knowledge is not simply a list of facts and formulas that are relevant to the domain; instead, their knowledge is organized around core concepts or ‘big ideas’ that guide their thinking about the domain.”
- Bransford, J. D.; Brown, A. L. (2000). *How People Learn*. Washington, D. C. National Research Council, p. 24. Available online <http://www.nap.edu/openbook.php?isbn=0309065577>
- “Technology is most powerful when used as a tool for problem solving, conceptual development, and critical thinking. With technology, students can spend...more time creating strategies for solving complex problems and developing a deep understanding of the subject matter.”
- Ringstaff, C. & Kelley, L. (2002). “The Learning Return on our Educational Technology Investment.” CA: San Francisco. WestEd. Available online http://www.wested.org/online_pubs/learning_return.pdf

Dealing with the “Yes, but...”

- “I have to teach to the test”
- To develop competence, students must:
 - Have a deep foundation of factual knowledge
 - Understand facts and ideas in a conceptual framework
 - Organize knowledge in ways that facilitate retrieval and application
- Questions frame deep understanding of materials
- Instead of “aimless activity” and “superficial coverage,” students focus on goals related to big ideas and complex performance.
- Excerpts from *Understanding by Design* Workshop

What Essential Questions Are NOT:

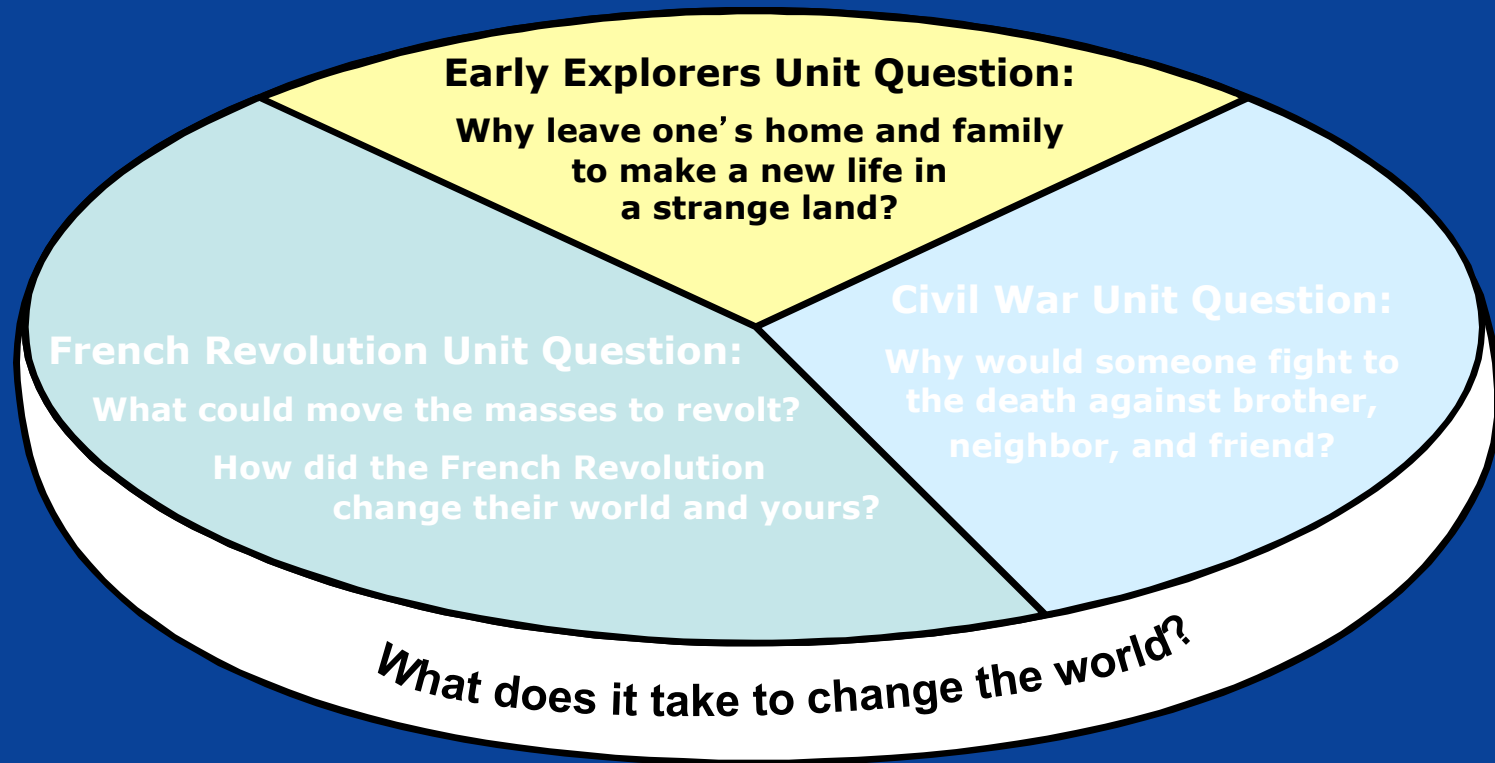
- They cannot be answered with a *Yes* or *No* answer.
- They cannot be answered by copying or paraphrasing from another source.
- They cannot be answered with facts that have familiar or simplistic connections.

Essential	Not Essential
How are we like animals?	What do animals need to live?
Are we that different?	How is life different in other countries?
Just because we can, should we?	What are the implications of genetics engineering?

What is the Difference Between Essential and Unit Questions?

- What makes a question an Essential or Unit Question is not the question itself but how you use it in instruction.
- “How does conflict produce change?” could be either an Essential or Unit Question:
 - Essential Question—a year-long guiding question in a Social Studies class that covers such units as World Explorers, the Industrial Revolution, and World War II.
 - Essential Question—part of a cross-curricular unit where students in language arts, social studies, science, and fine arts classrooms discuss different aspects of the question.
 - Unit Question—a question within a specific unit, such as evolution.

How Different Unit Questions Support a Single Essential Question in One Classroom



Hints for Writing Essential and Unit Questions

- Brainstorm questions on your own, then work with other teachers, or your own students, to refine them.
- Essentials Questions are more likely to begin with How and Why than with What, Who, or When.
 - Avoid questions asking for definitions or an understanding of a “simple” process.
- Ask yourself if the questions have basically only one, or one narrow group, of correct answers; if they do, they are not Essential or Unit Questions.
 - What is the life cycle of a frog?
 - Who was Mozart?
- Do the questions requires students to reflect on, evaluate, analyze, or synthesize the subject matter.
 - Will students need to take time to answer the questions well?

Hints for Writing Essential and Unit Questions (cont.)

- **Not so simple, but important, tips**
- Think about why that topic is important to teach. What compelling questions have scholars asked throughout time? How have human beings acquired the knowledge that students need so they can understand the world around them?
 - Why is the universe the way it is?
- How does this subject fit into the “real world”?
- What connections can students make to their own lives?
 - What makes **my** body work?
 - What can I do to keep **my** body healthy and strong?
- If you prefer, write the question in adult language and then adjust it to student language

The Creation of Good Questions and a Good Unit Is an Ongoing Process

