

# Qualities of Effective Research

## RESEARCH TOPICS/ASSIGNMENTS ARE AUTHENTIC

### Characteristics of authentic research

Purpose is clear.

Students participate in topic selection/refinement.

Topic is focused (not too large or too small).

Thesis is developed/supported (required at middle school level).

Students know steps to follow and outcome expected.

Students practice skills they will be able to use again.

### Steps in an authentic research process

Focus a topic from a general subject of interest.

List questions and/or key words.

Begin with general information to develop knowledge, expand/refine questions, key words.

Organize for researching, e.g., develop subtopics.

## INFORMATION-GATHERING ACTIVITIES ARE RIGOROUS

### Characteristics of rigorous information-gathering

Multiple sources are used and cited.

Primary and secondary sources.

Process is broken down into smaller steps.

### Steps in a rigorous information-gathering process

Develop a system for note taking.

- not word-for-word from source
- match information to questions or subtopics
- notes connected to sources [developmental progression: K-4, sources cited in simplified format; 5-6, full citation format; 7-8, required range and number of sources]

Basic information is gathered from vetted secondary sources (e.g., library books, online databases) before internet research.

Institute periodic checks on notes and progress through identified “steps”.

## PRODUCTS ARE MEANINGFUL

### Characteristics of meaningful products

Students match their demonstration of learning to their topics  
Rubrics provide comprehensive evaluation  
Products are made public

### Steps to creating a meaningful product

Students are given a range of possibilities for synthesizing information  
Rubrics for each option are discussed at the outset  
Students provide justification for their method of displaying research results.

## PROCESS AS WELL AS PRODUCT IS EMPHASIZED

### Characteristics of a successful process

Students turn in periodic notes and status reports  
Students reflect on and can discuss the means and results of their research

### Steps in fostering a successful process

Process is explicitly addressed and reflection is incorporated in the project  
Collaborative work includes evidence of and reflection on the division of tasks.  
Final demonstration of learning includes overview of process