

1 task
definition

2 information
seeking
strategies

3 location
and access

4 use of
information

5 synthesis

6 evaluation



**Inquiry Learning Big6-Style:
It All Starts with
Asking Great Questions!**

**Mike Eisenberg
&
Bob Berkowitz**

1 task
definition

2 information
seeking
strategies

3 location
and access

4 use of
information

5 synthesis

6 evaluation

Inquiry Learning

complements traditional instruction by providing:

- Student-centered
- Teacher-guided
- Engages students in investigating real world questions
- Has a broad thematic framework.
- Provides a vehicle for extending and applying learning
- Uses Big6/Super3 to solve problems and make decisions

1 task
definition

2 information
seeking
strategies

3 location
and access

4 use of
information

5 synthesis

6 evaluation

Questions may be used for various instructional purposes:

- to motivate students,
- to establish focus,
- to check on comprehension,
- to stimulate participation,
- to direct or redirect the discussion.

1 task
definition

2 information
seeking
strategies

3 location
and access

4 use of
information

5 synthesis

6 evaluation

The purpose of Questioning ...

- To guide student thinking and learning

1 task
definition

2 information
seeking
strategies

3 location
and access

4 use of
formation

5 synthesis

6 evaluation

Inquiry Learning

- Focuses on questions, problems, or situations rather receiving and recalling information
 - Student-centered
 - Teacher-guided
 - Engages students in investigating real world questions
 - Has a broad thematic framework.
 - Provides a vehicle for extending and applying learning



1 task
definition

2 information
seeking
strategies

3 location
and access

4 use of
information

5 synthesis

6 evaluation

The Big6™ Skills

1. Task Definition

2. Info Seeking Strategies

3. Location & Access

4. Use of Information

5. Synthesis

6. Evaluation



1 task
definition

2 information
seeking
strategies

3 location
and access

4 use of
information

5 synthesis

6 evaluation



The Big6™ Skills Model of Information Problem-Solving

1. Task Definition:

- 1.1 Define the information problem.
- 1.2 Identify information needed.

2. Information Seeking Strategies:

- 2.1 Determine all possible sources.
- 2.2 Select the best sources.

3. Location and Access:

- 3.1 Locate sources.
- 3.2 Find information within sources.

4. Use of Information:

- 4.1 Engage (e.g., read, hear, view, touch).
- 4.2 Extract relevant information.

5. Synthesis:

- 5.1 Organize from multiple sources.
- 5.2 Present information.

6. Evaluation:

- 6.1 Judge the product (effectiveness).
- 6.2 Judge the process (efficiency).

1 task
definition

2 information
seeking
strategies

3 location
and access

4 use of
information

5 synthesis

6 evaluation

The Big6 & Inquiry Learning

- **The Big6 = Information Problem-Solving = the Inquiry Process**
- **The Big6 provides a non-prescriptive (and flexible) guide for the inquiry process.**
- **For students, the Big6 provides a set of milestones to attain along the way.**
- **For teachers, the Big6 provides a curriculum of specific skills that students need to develop in order to engage in inquiry learning.**

1 **task
definition**

2 **information
seeking
strategies**

3 **location
and access**

4 **use of
information**

5 **synthesis**

6 **evaluation**

Big6 & Instructional Design

Question:

What do we want students to know, do and be like as a result of instruction?

Goal:

Putting students in the active role of problem-solvers and decision-makers confronted with a well-structured problem.

1 task
definition

2 information
seeking
strategies

3 location
and access

4 use of
information

5 synthesis

6 evaluation

What do we want to have happen?

- “Ensure that students are effective users and producers of ideas and information.”
- Increase student achievement.
- Promote lifelong learning skills and a desire to learn.

Classroom Questioning

[s/pdf/session6/6_ClassroomQuestioning.pdfLo](#)

Literal level questions are those which ask the student merely to recall verbatim or in his/her own words material previously read or taught by the teacher.

(recall, and knowledge questions)

Interpretive questions are defined as those which ask the student to mentally manipulate information previously learned to create an answer or to support an answer.

(interpretive, evaluative, inquiry)

Applied level questions are those that make use of information in new or unique ways.

(relate, manipulate, put into action)

Three Questioning Stages

- **Literal -**
 - **Information**
 - gather, recall, define, describe
- **Interpretive -**
 - **Processing**
 - classify, compare/contrast, explain, group,
- **Applied -**
 - **Performance & Evaluation**
 - use information, methods, theories, concepts in new situations.

Three Questioning Stages

- **Example - the concept of loyalty**
 - **Literal -**
 - How do you define “loyalty”?
 - **Interpretive -**
 - What are the characteristics of a “loyal” person?
 - Is the character in the story I just read “loyal”?
 - **Applied -**
 - Do you consider yourself “loyal” to someone or something?
 - Are there ever times when you should not be “loyal”?

1 task
definition

2 information
seeking
strategies

3 location
and access

4 use of
information

5 synthesis

6 evaluation

Ask & Answer

- Can I do what was asked?
- Can I have enough information?
- How well is my project planned?
- Do I have a good plan to organize my information/project?
- Will my project include all the appropriate information I find?
- Do I have to state my opinion?

1 task
definition

2 information
seeking
strategies

3 location
and access

4 use of
information

5 synthesis

6 evaluation

Ask & Answer

- Do I have to included evidence?
- Can I organized the evidence logically?
- Will the product make sense?
- Will the product be interesting?
- Is the main idea clear?
- What do I want to show about my topic?

1 task
definition

2 information
seeking
strategies

3 location
and access

4 use of
formation

5 synthesis

6 evaluation

JUICY Task Definition Questions

- Look for connections between information
- Trigger forming an opinion about ideas and information
- Use comparisons and looks for patterns
- Require **THOUGHTFUL** answers

Use of Information



4.1 **Engage** the information

- Read for purpose
- Skim and scan
- Identify main ideas
- Determine relevance and credibility

4.2 **Extract** relevant information

- Take notes
- Credit sources
- Distinguish between summarizing, paraphrasing, and direct quotations

Lesson in Context: Use of Information

Big6 Stages: Use of Information: 4.2 Extract

Grade Level: 4

Big6 Objective: Take notes using digital tools

Subject Area: Science

Unit Focus: Types of Animals

Subject Area Lesson Goal:

1. To become familiar with animal vocabulary and to provide an example for each animal type.
VOCABULARY: invertebrates, arachnids, crustaceans, insects, mollusks, sponges, vertebrates, reptiles, amphibians, mammals.

Learning Activity:

1. Students will work in teams of 3 to define specific vocabulary regarding animals.
2. Definitions will be recorded into “note slides” using PowerPoint.
3. On each slide, teams will include a definition, example, and source of their information.

Assessment:

- Evidence: Completed PowerPoint slides.
- Criteria: (1) Able to use PowerPoint, add slides, enter information. (2) Completeness – 3 parts to each slide. (3) Accuracy – correct definition, example. (4) Source – relevant and credible.

Lesson in Context: Use of Information

Big6 Stage: Use of Information - 4.2 Extract

Grade Level: 9-12

Big6 Power Objective: Crediting & Citing

Subject Area: English

Unit Focus: Writing

Subject Area Lesson Goal:

1. To learn why, when, and how to cite.
2. To learn to use citing tools.

Learning Activity:

- Class discussion: why do we credit/cite – enhances credibility, intellectual honesty. Discuss how it feels when you don't get credited or acknowledged.
- Complete and discuss "citation exercise" – e.g., Purdue OWL exercise - <http://owl.english.purdue.edu/owl/resource/589/04/>
- Introduce recommended citation tool and approach.

Assessment:

Evidence: Observation of discussion; Citation Exercise; Citation tool screenshot or printout.
Criteria: Understanding of "why." Accuracy on exercise. Success in using tool.

Lesson in Context Super3: DO



Super3 Stage: DO

Grade Level: preK-1

Super3 Power Objective: Crediting & Citing

Subject Area: Social Studies

Unit Focus: Communities

Subject Area Lesson Goal:

1. To learn why and how to cite.
2. To learn to use crediting/citing tools—Super3 Sam Citing Stickers.

Learning Activity:

- Class discussion: why do we credit/cite – to give credit because the “source” deserves it. Also, to back up (support) what we say.
- When possible, give credit in our work and also at the end.
- Use “Super3 Citing Stickers” (or rubber stamps of similar images or make your own images) to give credit to “people, myself, computer, or books.” (see Figure 6.11)

Assessment:

Evidence: Observation of discussion; Worksheet on what makes a community. On the worksheet, students circle pictures or write a word in the blank and then use the appropriate sticker to indicate where they got their information from.

Criteria: Understanding of “why.” Accuracy on using stickers.

1 task
definition

2 information
seeking
strategies

3 location
and access

4 use of
information

5 synthesis

6 evaluation

Questions should...

- promote problem-solving & decision making (Big6™ Skills).
- involve H.O.T.S.
- interest and motivate students.
- provide for meaningful products.
- utilize a wide variety of resources.
- allow Teacher-Librarians and Classroom Teachers to act as guides or facilitators.

**task
definition**

**information
seeking
strategies**

**location
and access**

**use of
information**

synthesis

evaluation

Benefits

- Reinforces the bridge from specific ideas & questions to transferable ideas & questions.
- Changes the focus from “uncover” to “discover”.
- Allows for integration of essential questions and authentic assessment.
- Teaches students to organize and manage big ideas & lots of content effectively and efficiently.
- Teaches students how to self-question.

1 task
definition

2 information
seeking
strategies

3 location
and access

4 use of
information

5 synthesis

6 evaluation

Asking good questions is an important part of...

- Common Core State Standards
- content curriculum
- cooperative and collaborative learning
- multiple-intelligences /learning styles
- instructional design

1 task
definition

2 information
seeking
strategies

3 location
and access

4 use of
information

5 synthesis

6 evaluation

Where do You Begin?

- Learn the Big6/Super3
- Examine lessons.
- Listen to the questions you ask.
- Listen to the questions students ask.
- Start with small projects – don't get overwhelmed.
- Be the guide. Don't supply the answers.

1 task
definition

2 information
seeking
strategies

3 location
and access

4 use of
information

5 synthesis

6 evaluation



**For information about “Big6
by the Month” webinars &
Onsite Big6 Workshops:**

www.Big6.com