

# A Tool Kit for Educators

**Worksheets and Recommended Readings**

**Palm Springs Museum of Art**

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## Inquiry Methods: Your Toolkit

- **Visual Thinking Strategies**
  - Paraphrasing and linking
- **Directed Looking**
  - Details to whole (constructing meaning)
  - Comparing and contrasting
  - Scaffolding / Sequencing Questions to construct meaning
- **Bloom's taxonomy (Types of questions) / Socratic Method**
  - Analysis / Synthesis / Evaluation

Goal: Constructing meaningful conversations and asking open ended questions

### Recommended Readings

*From Periphery to Center: Art Museum Education in the 21<sup>st</sup> Century.*  
National Art Education Association, 2007

Especially Part 4: The Museum Experience and Gallery Practices.  
Scintillating Conversations.

Rika Burnham and Elliott Kai-Kee, *Teaching in the Art Museum: Interpretation as Experience.* J. Paul Getty Museum, 2011

## INQUIRY-BASED LEARNING

**Questioning is a technique for guided looking and learning.**

### **Questioning Strategy Checklist**

- Avoid yes / no questions or closed ended questions
- Avoid asking questions with the answer contained in the question
- Elicit multiple responses to one question
- Avoid asking questions that have a particular answer in mind
- Incorporate other sensory modes
- Integrate relevant factual information about the work when available
- Vary levels of difficulty
- Elicit personal interpretation of the ideas and feelings communicated by the work
- Sequence questions in a logical order. Simple to complex for example.
- Present questions that are clear, concise, simple and to the point.
- Ask Observation questions:
  - Encourage participants with directed looking to see more
  - Bring elements together: why and how they relate?
  - Compare and contrast
- Ask Speculation questions
  - What would happen if ...
  - How do you account for ...

### **Other helpful hints for Inquiry Tours**

- Allow learners to conclude what they have learned, don't conclude for them.
- Knowledge of your subject area. Be familiar with the artists and subjects presented in the exhibitions.
- As long as content is treated as data and not the final answer, it may be used in inquiry.
- Don't be afraid to say "I don't know". Don't bluff your way through.
- Don't be too eager to tell all you know about an object, artist or exhibition. You may inadvertently destroy the excitement of discovery for the participant.
- Participant interaction with each other is an important part of inquiry.
- Encourage observation and reaction. Be flexible and listen to their ideas.
- Let participants know that their observations are good ones and that they should elaborate more on them.
- Build on the participants responses. Be flexible enough in your approach to incorporate participants' thoughts and observations in your tour. Be spontaneous!
- Don't be too quick to give the "right" answer or supply data. What may be "right" for you may not appear logically "right" to the participants. Yours is only one interpretation of the problem. Everyone will have a different frame of reference.
- Limit the range of the historical concept you are going to explore. You couldn't possibly discuss the social, economic, political, religious and aesthetic concepts of American Colonization in one tour.
- Allow for good, creative discussion. But also be prepared to direct participants to a logical path if they are going astray.

## OBJECT CENTERED LEARNING

- Teaching in context is the key to learning.
- **Stay with the art object in front of you. If you must refer to other artists or works not in front of the group, you must share images using the ipad.** Do NOT assume that all visitors are familiar with other works by the artist or other contemporary artists.
- Allow viewers time to look at the work.

## ACTIVE LISTENING

### 1. Pay Attention

Give the speaker your undivided attention, and acknowledge the message. Recognize that non-verbal communication also "speaks" loudly.

- Look at the speaker directly.
- Put aside distracting thoughts.
- Don't mentally prepare a rebuttal!
- Avoid being distracted by environmental factors. For example, side conversations.
- "Listen" to the speaker's **Body Language**

### 2. Show That You're Listening

Use your own body language and gestures to convey your attention.

- Nod occasionally.
- Smile and use other facial expressions.
- Note your posture and make sure it is open and inviting.
- Encourage the speaker to continue with small verbal comments like yes, and uh huh.

### 3. Provide Feedback

Our personal filters, assumptions, judgments, and beliefs can distort what we hear. As a listener, your role is to understand what is being said. This may require you to reflect what is being said and ask questions.

- Reflect what has been said by paraphrasing. "What I'm hearing is," and "Sounds like you are saying," are great ways to reflect back.
- Ask questions to clarify certain points. "What do you mean when you say." "Is this what you mean?"

- Summarize the speaker's comments and link to other visitor comments when possible.

#### **4. Defer Judgment**

Interrupting is a waste of time. It frustrates the speaker and limits full understanding of the message.

- Allow the speaker to finish each point before asking questions.
- Don't interrupt with counter arguments.

#### **5. Respond Appropriately**

Active listening is a model for respect and understanding. You are gaining information and perspective.

- Be open in your response.
- Speak respectfully.
- Treat the other person in a way that you think he or she would want to be treated.

#### ***Key Points***

It takes a lot of concentration and determination to be an active listener. Old habits are hard to break, and if your listening skills are as bad as many peoples are, then there's a lot of habit-breaking to do.

Be deliberate with your listening and remind yourself frequently that your goal is to truly hear what the other person is saying. Set aside all other thoughts and behaviors and concentrate on the message. Ask questions, reflect, and paraphrase to ensure you understand the message. If you don't, then you'll find that what someone says to you and what you hear can be amazingly different!

## VTS (Visual Thinking Strategies)

In VTS discussions, Educators support visitor growth by facilitating discussions of carefully selected works of visual art.

### Teachers are asked to use three open-ended questions:

- What's going on in this picture?
- What do you see that makes you say that?
- What more can we find?

### 3 Facilitation Techniques:

- Paraphrase comments neutrally
- Point at the area being discussed
- Linking and framing student comments

### Students are asked to:

- Look carefully at works of art
- Talk about what they observe
- Back up their ideas with evidence
- Listen to and consider the views of others
- Discuss many possible interpretations

## DIRECTED LOOKING

- Find a point of entry or theme for talking about the work.
- Ask an opening question to allow visitors something to think about as they are taking the work in for the first time.
- Use a Specific-to-General approach
- Paraphrase EVERYTHING
- **Sequencing questions: building upon knowledge developed from previous questions**
- Linking visitor comments to previous statements or questions
- 
- Summarizing ideas discussed

## Blooms Taxonomy

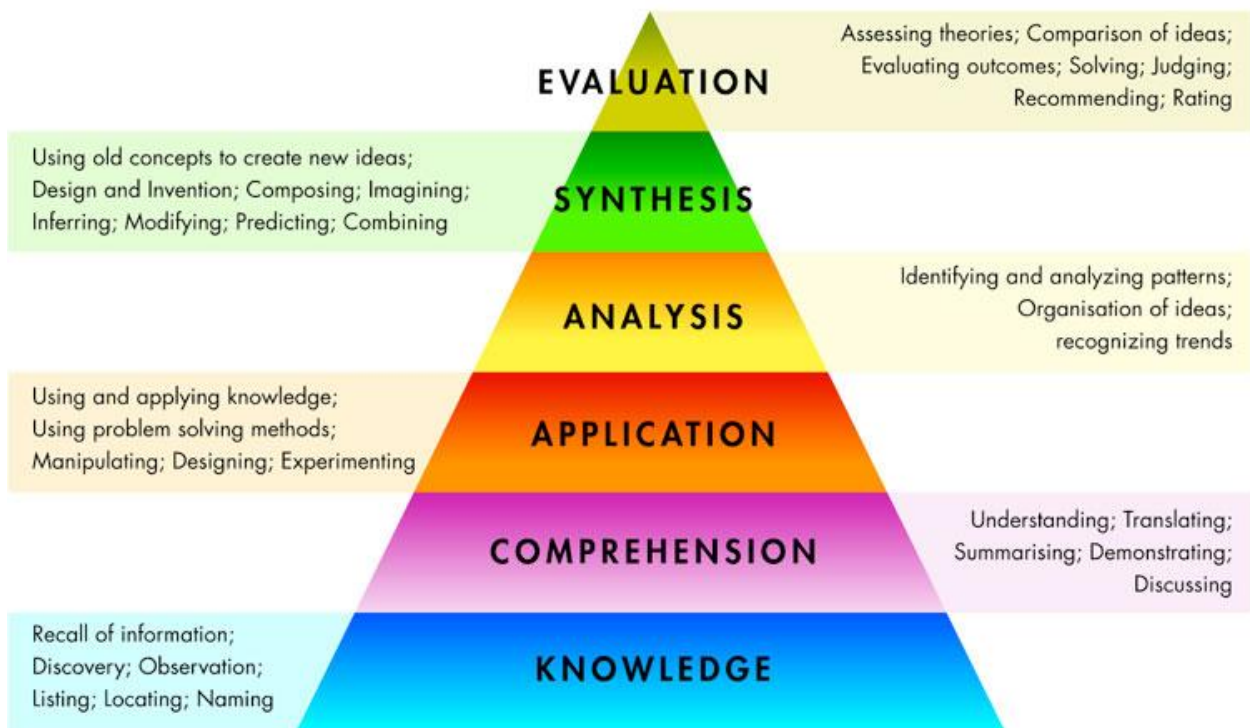
Bloom's Taxonomy provides an important framework for educators to use to focus on higher order thinking. By providing a hierarchy of levels, this taxonomy can assist educators in crafting questions.

This resource is divided into different levels each with Keywords that exemplify the level and questions that focus on that same critical thinking level. Questions for Critical Thinking can be used in the classroom to develop all levels of thinking within the cognitive domain. The results will be improved attention to detail, increased comprehension and expanded problem solving skills. Use the keywords as guides to structuring questions and tasks.

Assessment can be used to help guide culminating projects. The six levels are:

- **Level I Knowledge**
- **Level II Comprehension**
- **Level III Application**
- **Level IV Analysis**
- **Level V Synthesis**
- **Level VI Evaluation**

## B L O O M S T A X O N O M Y



## **Blooms Level I: Knowledge**

Exhibits memory of previously learned material by recalling fundamental facts, terms, basic concepts and answers about the selection.

### Keywords:

who, what, why, when, omit, where, which, choose, find, how, define, label, show, spell, list, match, name, relate, tell, recall, select

### Questions:

- What is...? • Can you select? • Where is...? • When did \_\_\_\_ happen?
- Who were the main...? • Which one...? • Why did...? • How would you describe...?
- When did...? • Can you recall...? • Who was...? • How would you explain...?
- How did \_\_\_\_ happen...? • Can you list the three..? • How is...?
- How would you show...?

## **Blooms Level II: Comprehension**

Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptors and stating main ideas.

Keywords: compare, contrast, demonstrate, interpret, explain, extend, illustrate, infer, outline, relate, rephrase, translate, summarize, show, classify

### Questions:

- How would you classify the type of...? • How would you compare...? contrast...?
- Will you state or interpret in your own words...?
- How would you rephrase the meaning?
- What facts or ideas show...? • What is the main idea of .....?
- Which statements support...? • Which is the best answer...?
- What can you say about ...? • How would you summarize... ?
- Can you explain what is happening...? • What is meant by...?

## **Blooms Level III: Application**

Solve problems in new situations by applying acquired knowledge, facts, techniques and rules in a different, or new way.

### Keywords:

apply, build, choose, construct, develop, interview, make use of, organize, experiment with, plan, select, solve, utilize, model, identify

### Questions:

- How would you use...? • How would you solve \_\_\_\_ using what you've learned...?
- What examples can you find to...? • How would you show your understanding of...?
- How would you organize \_\_\_\_\_ to show...?
- How would you apply what you learned to develop...?
- What approach would you use to...? • What other way would you plan to...?
- What would result if...? • Can you make use of the facts to...?
- What elements would you use to change...? • What facts would you select to show...?

## **Blooms Level IV: Analysis**



Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations.

Keywords:

analyze, categorize, classify, compare, contrast, discover, dissect, divide, examine, inspect, simplify, survey, test for, distinguish, list, distinction, theme, relationships, function, motive, inference, assumption, conclusion, take part in

Questions:

- What are the parts or features of . . . ? • How is \_\_\_\_\_ related to . . . ?
- Why do you think . . . ? • What is the theme . . . ? • What motive is there . . . ?
- Can you list the parts . . . ? • What inference can you make . . . ?
- What conclusions can you draw . . . ? • How would you classify . . . ?
- How would you categorize . . . ? • Can you identify the different parts . . . ?
- What evidence can you find . . . ? • What is the relationship between . . . ?
- Can you make a distinction between . . . ? • What is the function of . . . ?
- What ideas justify . . . ?

**Blooms Level V: Synthesis**

Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions. Speculative questions can further insight.

Keywords:

build, choose, combine, compile, compose, construct, create, design, develop, estimate, formulate, imagine, invent, make up, originate, plan, predict, propose, solve, solution, suppose, discuss, modify, change, original, improve, adapt, minimize, maximize, theorize, elaborate, test, happen, delete

Questions:

- What changes would you make to solve...? • How would you improve...?
- What would happen if...? • Can you elaborate on the reason...?
- Can you propose an alternative...? • Can you invent...?
- How would you adapt \_\_\_\_\_ to create a different...?
- How could you change (modify) the plot (plan)...? • What facts can you compile...?
- What way would you design...? • What could be combined to improve (change)...?
- Suppose you could \_\_\_\_\_ what would you do...? • How would you test...?
- Can you formulate a theory for...? • Can you predict the outcome if...?
- How would you estimate the results for...? • What could be done to minimize (maximize)...?
- Can you construct a model that would change...? • How is \_\_\_\_\_ related to...?
- Can you think for an original way for the...? • What are the parts or features of...?
- Why do you think...? • What is the theme...? • What motive is there...?
- Can you list the parts...? • What inference can you make...? ...? • What ideas justify...?
- What conclusions can you draw...? • How would you classify...?
- How would you categorize...? • Can you identify the different parts...?
- What evidence can you find...? • What is the relationship between...?
- Can you make the distinction between...? • What is the function of

**Blooms Level VI: Evaluation**

Present and defend opinions by making judgments about information, validity of ideas or

quality of work based on a set of criteria.

Keywords:

award, choose, conclude, criticize, decide, defend, determine, dispute, evaluate, judge, justify, measure, compare, mark, rate, recommend, rule on, select, agree, appraise, prioritize, opinion, interpret, explain, support importance, criteria, prove, disprove, assess, influence, perceive, value, estimate, deduct

Questions:

- Do you agree with the actions/outcome...? • What is your opinion of...?
- How would you prove/ disprove...? • Can you assess the value or importance of...?
- Would it be better if...? • Why did they (the character) choose...?
- What would you recommend...? • How would you rate the...?
- How would you evaluate...? • How would you compare the ideas...? the people...?
- How could you determine...? • What choice would you have made...?
- What would you select...? • How would you prioritize...? • How would you justify...?
- What judgment would you make about...? • Why was it better that...?
- How would you prioritize the facts...? • What would you cite to defend the actions...?
- What data was used to make the conclusion...?
- What information would you use to support the view...?
- Based on what you know, how would you explain...?

## Socratic Method

The oldest and perhaps still the most powerful teaching tactic for fostering critical thinking is Socratic teaching. In Socratic teaching we focus on giving students questions, not answers. We model an inquiring, probing mind by continually probing into the subject with questions. Fortunately, the abilities we gain by focusing on the elements of reasoning in a disciplined and self-assessing way, and the logical relationships that result from such disciplined thought, prepare us for Socratic questioning.

Thankfully, there is a predictable set of relationships that hold for all subjects and disciplines. This is given in the general logic of reasoning, since every subject has been developed by those who had:

- shared goals and objectives (which defined the subject focus)
- shared questions and problems (whose solution they pursued)
- shared information and data (which they used as an empirical basis)
- shared modes of interpreting or judging that information
- shared specialized concepts and ideas (which they used to help them organize their data)
- shared key assumptions (that gave them a basis from which to collectively begin)
- a shared point of view (which enabled them to pursue common goals from a common framework)

Each of the elements represents a dimension into which one can delve in questioning a person. We can question goals and purposes. We can probe into the nature of the question, problem, or issue that is on the floor. We can inquire into whether or not we have relevant data and information. We can consider alternative interpretations of the data and information. We can analyze key concepts and ideas. We can question assumptions being made. We can ask students to trace out the implications and consequences of what they are saying. We can consider alternative points of view. All of these, and more, are the proper focus of the Socratic questioner.

As a tactic and approach, Socratic questioning is a highly disciplined process. The Socratic questioner acts as the logical equivalent of the inner critical voice which the mind develops when it develops critical thinking abilities. The contributions from the members of the class are like so many thoughts in the mind. All of the thoughts must be dealt with and they must be dealt with carefully and fairly. By following up all answers with further questions, and by selecting questions which advance the discussion, the Socratic questioner forces the class to think in a disciplined, intellectually responsible manner, while yet continually aiding the students by posing facilitating questions.

A Socratic questioner should:

- **Keep the discussion focused**
- **Keep the discussion intellectually responsible**
- **Stimulate the discussion with probing questions**
- **Periodically summarize what has and what has not been dealt with and/or resolved**
- **Draw as many learners as possible into the discussion.**

# Questioning Strategies Exercises

## Part 1: Open-ended questions

Consider the intent of inquiry-based tours.

- Bring people and objects together.
- Remove ourselves from between object and viewer.
- Create an atmosphere for contemplation.
- More?

First List as phrases or words that can begin questions in this space:

Then mark the following words or phrases

- Which words are related to observation? (mark "o")
- Which call for a single answer? (mark "s")
- Which call for divergent responses? (mark "d")
- Which tap into higher level thinking skills? (mark "h")

Transform the prescriptive questions below into open-ended inquiries.

*Example:*

What colors is the artist using?

*Why do you think the artist chose these colors for this subject matter?*

*What might be the significance of color choice?*

*What symbolism do you associate to this color?*

**Your questions below should promote further and deeper discussion. Keep in mind that your transformations should not be “list making” or “Yes/No” questions:**

Who is the person in the painting?

Are the lines mostly curved or straight?

Where is the decorated area in this figure?

What materials is the artist using?

What color is the man's hat?

## Sequencing questions

### In the galleries:

Using 1 – 3 artworks of your choice, create 1 – 3 sequences of open-ended questions that seek responses that move from simple to complex. Think about how you will incorporate what you know about the work of art into the questions.

<b>Title of work:</b>			
<b>Artist:</b>			
<b>Factual</b>	<b>Analytical</b>	<b>Speculative</b>	<b>Evaluative</b>
Observations and factual information inventory.  <i>Questions employ words like: what, where, list, name, recall, describe, define, locate, identify, compare</i>	Identify causes and reasons. Analyze data to reach a conclusion.  <i>Questions employ words like: conclude, why, categorize, solve, classify, how, relate, order, give reasons</i>	Produce original ideas or a new plan. Make predictions.  <i>Questions employ words like: create, develop, design, change, devise, improve, imagine, suppose, what if</i>	Judge merits. Use criteria for assessment.  <i>Questions employ words like: judge, evaluate, assess, debate, argue, choose, recommend, discuss</i>

<b>EDUCATOR OUTLINE</b>
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**Exhibition/Artwork:**

**MAIN IDEAS**

**QUESTIONS**

**SUMMARY**