Guiding Principle and Axiom:

Basically, there are two forms of teaching: "expository teaching" (where the teacher is the focal point for information delivery) and “inquiry teaching” (where the teacher serves as a guide and the learner seeks information from its source or from experience). Inquiry is more consistent with the goals of museum teaching as it places emphasis on the collection as the source of information, rather than the teacher.

1. About Asking Questions

Why ask questions?

- Initiates involvement and active participation regardless of whether visitors are responding outwardly or reflecting inwardly
- Permits visitors to learn at their own level of interest, background, and preparedness, while allowing them to learn in a manner consistent with their own learning style
- Questioning focuses attention, while making for an appropriate mix of listening and doing. Only having the opportunity to listen is tiring and allows minds to wander off the subject.
- Reflecting upon responses to questions allows a teacher to gauge how effective the lesson is, and to evaluate what visitors are actually learning.
- Questioning appropriately shifts the focal point of a lesson away from the teacher as the “purveyor of information” to the object as the “source of information.”
- Questioning teaches the skill of self-generative learning in each learner — in other words, questioning teaches people how to learn, making them more independent, self-reliant, and ultimately, more successful learners.

What type of questions should be asked?

- Questions should be designed to teach the process of learning from objects. Emphasis is not on the subject matter to be mastered, but rather on ways of examining and explaining art and perceptions.
- Questions should invite, rather than limit, participation. As places of “informal” learning, we have the luxury of not having to test visitors, nor need we be accountable for the level of information they have upon
entering our institutions. Remember, most visitors do not attend museums to test prior knowledge, but to learn new ideas and information.

- Two types of questions:
  **Close-ended questions** – request that the mind focus down through a field of possible answers to the one or ones that are correct. These questions test knowledge and memorization, and judgments about their correctness are made.
  **Open-ended questions** – request that the mind broaden its field and discover the many possibilities and potential answers, regardless of whether they are the “best” responses. These questions encourage expansive thinking and serve as a pry to open the mind to new, different, or highly individualized responses, to which judgments about their “correctness” are not made.

**When should questions be asked?**

- Questions should be asked when involvement is preferred, when differing points of view expand the subject matter or provide additional and useful perspectives.
- Questions should be employed at every “stop” as questions foster interest and enlarge upon the subject matter.
- Questions should *not* be asked when vital information is to be transferred, when vocabulary or definitions of terms are being taught, or when multiple perspectives are not useful.

**2. The Mechanics of Questioning**

**Constructing Questions**

- Questions should be prepared in advance of the lesson. Good preparation guards against resorting to close-ended questions when open-ended questions are desired.
- Questions begin with interrogatives. The type of interrogative chosen will, in large measure, determine the types of responses you will receive.
  **Many responses** – to get a quantity of responses, begin by asking, “Let’s think of all the possible...” or “How many can we think of...”
  **Variety of responses** – To get different responses or perspectives, begin by asking “What other...” or “How else might...”
  **Personalized responses** – To get individualized or customized responses, begin by asking, “What do you think/believe...” etc,
**Detailed responses** – To encourage elaboration or detailed responses, as “Tell me more about…” or “Can you tell how you arrived at that idea?”

- Questions should request one of four intellectual pursuits:
  - **Describing** – Making observations from a field of data. Noting the characteristics of a person, place or thing, event, phenomenon, or inner state (emotional response).
  - **Explaining** – Discussing the relationship(s) between sets of observations. Constructing a rationale for the cause and effect relationships between things.
  - **Predicting** – applying cause and effect relationship(s) to future or unknown events in order to generate probability statements.
  - **Choosing** – Analyzing alternatives and making personal judgments based on either internal or external criteria. Choosing among alternatives.

### 3. Questions that Request those Skills Required for Independent Learning

**Active Learning Processes Requiring Critical Thinking and Organizing**
(as chronicled by Dr. Louis B. Raths in *Teaching for Thinking*).

- **Comparing** – Discovering similarities and/or differences among two or more objects.
- **Observing** – Looking more closely than usual through increased visual involvement.
- **Classifying** – Sorting based on some pre-determined principle(s).
- **Summarizing** – Condensing form and substance without omission of essential details.
- **Interpreting** – Putting meaning into, or extracting meaning out of, experience or data.
- **Imagining** – Extending the known with ideas not actually present or substantiated by facts or reality.
- **Hypothesizing** – Proposing solutions or outcomes to a problem whose answer is not known.
- **Decision-making** – Drawing conclusions or making determinations based on specific, stated criteria.

**Describing Questions**

- Asking for observations. Questions that ask visitors make careful note, through the use of senses, and describe using concrete, report language.
- Asking for comparisons. Questions that ask visitors to compare one thing to another, making note of their differences or similarities.
Explaining Questions

- Asking for observations. Questions that ask visitors to group things based on criteria or categories and explaining their choices.
- Asking for summarizations. Questions that ask visitors to explain briefly and in their own words what they have learned or understood.

Predicting Questions

- Asking for hypotheses. Questions that ask visitors to extend what is known using available information and criteria.
- Asking for imaginings. Questions that ask visitors to extend what is known using fantasy that is not necessarily based in fact.

Choosing Questions

- Asking for decisions. Questions that ask visitors to make choices based on specific criteria.

4. Style When Asking Questions

Presentation is Important

- Visitors should be told at the beginning of their tour/lesson that they will be asked questions. They should also be told that the purpose of the questions is to gather their personal insights and ideas and not to test them.
- In order to sustain this openness, the teacher must remain open and receptive to the wide variety of responses that may be forthcoming. If the teacher is judgmental, then “all bets are off” concerning participation as people may withdraw because they do not wish to be wrong.