

# Designing Effective Projects: Questioning The Socratic Questioning Technique

## The Socratic Questioning Technique

The Socratic approach to questioning is based on the practice of disciplined, thoughtful dialogue. Socrates, the early Greek philosopher/teacher, believed that disciplined practice of thoughtful questioning enabled the student to examine ideas logically and to determine the validity of those ideas. In this technique, the teacher professes ignorance of the topic in order to engage in dialogue with the students. With this “acting dumb,” the student develops the fullest possible knowledge about the topic.

The Socratic Questioning technique is an effective way to explore ideas in depth. It can be used at all levels and is a helpful tool for all teachers. It can be used at different points within a unit or project. By using Socratic Questioning, teachers promote independent thinking in their students and give them ownership of what they are learning. Higher-level thinking skills are present while students think, discuss, debate, evaluate, and analyze content through their own thinking and the thinking of those around them. These types of questions may take some practice on both the teacher and students' part since it may be a whole new approach.

## Tips for Using Socratic Questioning:

- Plan significant questions that provide meaning and direction to the dialogue
- Use wait time: Allow at least thirty seconds for students to respond
- Follow up on students' responses
- Ask probing questions
- Periodically summarize in writing key points that have been discussed
- Draw as many students as possible into the discussion
- Let students discover knowledge on their own through the probing questions the teacher poses

## Types of Socratic Questions and Examples

The Socratic Questioning technique involves different type of questions. Some examples of these are:

<b>Socratic Question Type</b>	<b>Example</b>
Clarification questions	<ul style="list-style-type: none"><li>• <i>What do you mean by...?</i></li><li>• <i>Could you put that another way?</i></li><li>• <i>What do you think is the main issue?</i></li><li>• <i>Could you give us an example?</i></li><li>• <i>Could you expand upon that point further?</i></li></ul>
Questions about an initial question or issue	<ul style="list-style-type: none"><li>• <i>Why is this question important?</i></li><li>• <i>Is this question easy or difficult to answer?</i></li><li>• <i>Why do you think that?</i></li><li>• <i>What assumptions can we make based on this question?</i></li><li>• <i>Does this question lead to other important issues and questions?</i></li></ul>

Assumption questions	<ul style="list-style-type: none"> <li>• <i>Why would someone make this assumption?</i></li> <li>• <i>What is _____ assuming here?</i></li> <li>• <i>What could we assume instead?</i></li> <li>• <i>You seem to be assuming_____.</i></li> <li>• <i>Do I understand you correctly?</i></li> </ul>
Reason and evidence questions	<ul style="list-style-type: none"> <li>• <i>What would be an example?</i></li> <li>• <i>Why do you think this is true?</i></li> <li>• <i>What other information do we need?</i></li> <li>• <i>Could you explain your reason to us?</i></li> <li>• <i>By what reasoning did you come to that conclusion?</i></li> <li>• <i>Is there reason to doubt that evidence?</i></li> <li>• <i>What led you to that belief?</i></li> </ul>
Origin or source questions	<ul style="list-style-type: none"> <li>• <i>Is this your idea or did you hear it from some place else?</i></li> <li>• <i>Have you always felt this way?</i></li> <li>• <i>Has your opinion been influenced by something or someone?</i></li> <li>• <i>Where did you get that idea?</i></li> <li>• <i>What caused you to feel that way?</i></li> </ul>
Implication and consequence questions	<ul style="list-style-type: none"> <li>• <i>What effect would that have?</i></li> <li>• <i>Could that really happen or probably happen?</i></li> <li>• <i>What is an alternative?</i></li> <li>• <i>What are you implying by that?</i></li> <li>• <i>If that happened, what else would happen as a result? Why?</i></li> </ul>
Viewpoint questions	<ul style="list-style-type: none"> <li>• <i>How would other groups of people respond to this question? Why?</i></li> <li>• <i>How could you answer the objection that _____ would make?</i></li> <li>• <i>What might someone who believed _____ think?</i></li> <li>• <i>What is an alternative?</i></li> <li>• <i>How are _____ and _____'s ideas alike? Different?</i></li> </ul>

## Socratic Questioning Example

This questioning dialogue would take place after the unit had been introduced and was well underway.

Teacher: What is happening to our global climate?

Vipul: It's getting warmer.

Teacher: How do you know it's getting warmer? What evidence do you have to support your answer?

Vipul: It's in the news all of the time. They are always saying that it's not as cold as it used to be. We have all of these record heat days.

Teacher: Has anyone else heard of this kind of news?

Diya: Yeah. I have read about it the newspaper. They call it global warming, I think.

Teacher: Are you saying that you learned about global warming from newscasters? Are you assuming they know that global warming is occurring?

Hema: I heard it too. It's terrible. The ice caps in the Arctic are melting. The animals are losing their homes. I think the newscasters hear it from the scientists that are studying the issue.

Teacher: If that is the case and the scientists are telling the newscasters, how do the scientists know?

Chandan: They have instruments to measure climate. They conduct research that measures the Earth's temperature.

Teacher: How long do you think scientists have been doing this?

Gopal: Probably 100 years.

Chandan: Maybe a little more than that.

Teacher: Actually, it's been studied for about 140 years. Since about 1860.

Hema: We were close.

Teacher: Yes. How did you know that?

Gopal: I just figured that seems like when instruments were available and scientists had the means to measure climate like that.

Teacher: So, looking at the last 100 year's climate on this graph, what can we say about the earth's climate?

Raja: The 20th century has become much warmer than previous centuries.

Teacher: Can we hypothesize why?

Raja: One word: pollution.

Teacher: What are you assuming when you say that pollution is the cause for the temperatures to rise?

Hema: Carbon dioxide from cars causes pollution and chemicals from factories.

Pradip: Hair spray causes dangerous chemicals to get into the atmosphere.

Teacher: Okay. Let's take a minute to review what we've discussed so far.

View the Unit Plan, [Literature e-Circles](#) to see a Socratic Seminar in practice.