

**METHODS OF
TEACHING PRIMARY SCHOOL
SCIENCE**

QUESTION AND ANSWER

Outline

- What is Question and Answer Method?
- Why do teachers ask questions?
- Why do students ask questions?
- How do we use the Question and Answer Method?
- What are the guidelines for effective use of the Question and Answer Method of teaching?
- Advantages of Question and Answer Method of teaching
- Disadvantages of Question and Answer Method of teaching

What is Question and Answer Method?

- The Question and Answer Method is a method of teaching in which the teacher gets students to examine and discover ideas, principles and facts by asking questions to which students give answers

Why do teachers ask questions?

- Find out what students already know.
- Reminds students of what they know.
- Stimulate the thinking power of students.
- Makes students draw logical conclusions.
- Helps students revise what they have learnt.

Why do students ask questions?

- To show relationship that exists between the teacher and students.
- To determine the level of understanding or intellectual ability of students.
- To show whether the teacher is communicating well or not. (E.g. is his/her voice clear? Is he/she systematic in his/her presentation?)
- To clear student misunderstanding of ideas on everyday occurrences.
- Learn more to satisfy their curiosity.

How do we use the Question and Answer Method?

- The correct way of using the Question and Answer Method is shown below:



How do we use the Question and Answer Method?

First phase is the Question

- A question is a sentence or phrase which asks for information
- The question should be well framed, specific and to the point.
- The wording of the question should portray what the teacher actually intended to achieve.

How do we use the Question and Answer Method?

The second phase of the question is the Pause

- Here the teacher must pause for sometime (3-5 secs) to give students ample time to think. If the time is too long the pupils will disturb in class and if it is too short they will not think and answer the question very well.

How do we use the Question and Answer Method?

The third phase of the Questioning Method is the Respondent stage.

- The teacher after a pause selects who is to give the reply. This is to give everybody the chance to answer questions in the class.
- The teacher should not call a student before asking a question. If this is done, the students will think that the question is directed to that particular student and not to all the other students. Thus the class will not pay attention.
- The ordering of the questioning should be systematic to stimulate the students to think, evaluate and draw conclusions.

How do we use the Question and Answer Method?

NOTE

- When students give correct answers, the teacher should react to it. He /she must say words or phrases to provide positive motivation.
- With wrong answers too, the teacher should recognize student effort.

Effective Questioning Practices

- Phrasing and Clarity
- Reinforcing Language
- Psychological Safety
- Sequencing and Balance

Phrasing and Clarity

- The phrasing and clarity of words used in formulating a question greatly influences its effectiveness
- A well-phrased question enables students to effectively understand the nature and scope of the question being posed
- Teacher questions should not be ambiguous

Reinforcing Language

- Replace general praise with specific description
- Name concrete, specific behaviours

Replacing General Praise with Specific Description

Instead of	Try
“Good job”	“ I noticed you did not miss the distinguishing features in your answer”
“This is A+ work”	“You paid attention to every detail in your answer”
“Nice”	“I see that all the materials have been mentioned nicely”

Naming Concrete, Specific Behaviours

Instead of	Try
“Nice job with your response”	“ I see you described the main ideas in your own words”
“I noticed how hard you worked”	“When you didn’t know the answer right away, you tried a different strategy”

Psychological Safety

- The teacher should strive to ensure that each student feels valued
- Students should be permitted to provide a full answer to the question without fear of penalty for an incorrect response
- Create an environment in which learners feel encouraged
- Do not erode students' sense of safety and self-worth
- Students should always be reminded that there may be several correct answers to questions and just because the answer did not match the instructor's, does not mean it was an incorrect response unworthy of discussion.

Sequencing and Balance

- Sequencing is asking questions in a patterned order with the purpose to elicit meaningful responses from the audience
- Balance is asking both convergent and divergent questions from multiple knowledge domains and at varying cognitive levels

Sequencing and Balance

- First, ask students lower-order questions to create a psychologically safe environment
- After a few simple questions to get students involved and interested, they move toward questions relating to material that is more analytical in nature

Sequencing and Balance

Achieving balance also requires:

- paying attention to the frequency at which questions are used relative to the amount of time spent presenting new information
- engaging students in other active-learning activities

What are the guidelines for effective use of the Question and Answer Method of teaching?

- Ask questions that are clear and precise.
- Distribute the questions widely around the class in an irregular manner.
- If a student gives an incorrect answer, restate the question or provide a hint (clue).
- Give positive motivation or reinforcement.
- Listen attentively to all responses.
- Ask questions before calling students to answer
- Pause after asking question.

Advantages of Question and Answer Method of teaching.

- Students become mentally involved throughout the lesson.
- Students realize their own mistakes when probing questions are asked. This leads to self-evaluation.
- It is an effective self-control device because when students know that they may be called upon anytime, they pay attention to what is going on in the class.

Disadvantages of Question and Answer Method of teaching.

- It is a slower method of dealing with information.
- Consistently answering question incorrectly may lead to lessened self -concept. (This means that the student will be demoralized)
- It is time consuming in nature.