INQUIRY AND QUESTIONING STRATEGIES FOR EFFECTIVE SCIENCE LEARNING

by:
Bliselda D. Bicaldo
Teacher III – Jose C. Payumo Jr. Memorial High School

"Tell me and I forget, show me and I may remember, involve me and I learned." (Benjamin Franklin) The final part of this sentence captures the core of inquiry-based learning: INVOLVEMENT LEADS TO UNDERSTANDING. If we let our students explore things by themselves, the result is better learning. Based on studies, we retain 75% of what we do/ compared to 5% of what we hear and 10% of what we read. That means that retention rate increases when students are engaged or involved in classes.

"Inquiry" is defined as "a seeking for truth, information, or knowledge - seeking information by questioning." In Inquiry Learning Approach starts with a question (Higher Level question) that require students to think deeply, to investigate, to search for an answer. An Inquiry Approach is a teaching approach used in the science classroom. It engages students in active learning activities that promote inquiry, data analysis, and critical thinking; it includes hands-on activities.

Here are the stages that make up the Inquiry Process:

Ask. A formulated question or set of questions related to the topic of inquiry; it can be asked by either the teacher or the student(s).

Investigate. Once a question is posed, investigating the topic is what the students are encouraged to do. This involves experiment to collect information or data.
Create. When enough information related to the topic of inquiry is gathered, documenting and organizing data follows. This helps the students make connections with new learning and prior learning.

Discuss Students share their ideas with each other. They compare notes and discuss conclusions.

Reflect. They take time to look back and think about the initial question, to come up with the conclusion. Has a solution been found? Do their findings proved their hypothesis? “Do new questions come into light?” What might those questions be?”

When investigating, students greatly develop and apply a number of skills such as observing, experimenting, working collaboratively measuring, sorting and classifying, recording, analyzing, and working safely as they explore objects, materials and/or events.

Students “DO” science rather than having it done to them. The world of science is about observation, investigation, and wondrous discovery. Learning becomes meaningful when they’ll get the chance to explore the topic more deeply on their own.

Reference: