



SCIENCE DISSECTED

Interactive Science Notebooks

As Science Teachers, we understand that note-taking is a necessary skill needed to be successful within the sciences and across all disciplines. Teachers are often frustrated with students' inability (or lack of motivation) to take meaningful notes. Not only are students confused about what to write down, but once the notes are taken, they are often filed never to be looked over again. Students must be taught how to take high-quality notes and how to organize them for future reference as a study tool and resource in order to increase their understanding of science concepts.

Writing provides a medium for discovery and processing of scientific concepts, as well as a tool for the student to communicate his level of understanding to the teacher. The use of a science notebook can greatly assist students with the organization of information by providing a structure which teaches students to think, record, and reflect as a scientist. One accepted method of notebook organization is the *Interactive Notebook*. The Interactive Notebook supports an organization of content into three parts; **IN question**, **THROUGH section**, and **OUT question**.

IN Question – whether you call it an essential question, daily opener, or bell assignment, the purpose of the IN Question is to focus student attention on the science topic of the day. The question can be used as a pre-assessment to determine what students already know about the topic of study or as a formative assessment check of previously covered material. In either case, the teacher must check to ensure the student response is completed prior to any class or group discussion. Once students have written their answers, class or group discussion may occur. Students are encouraged to make additions and corrections to their answer in order to construct a complete response.

THROUGH Section – here is where students record their learning experiences from your lesson. This area can have many different “looks” depending on your objective, but will include items such as laboratory investigations, lecture notes, small-group or individual activities. This is the area where students are engaged in recording, organizing, critiquing, and summarizing information based upon the requirements of the lesson. Additionally, teacher handouts, student generated artifacts, diagrams, and graphic organizers, are incorporated in this section to further assist students in completing the experience.

OUT Question – analogous to the “ticket out the door” exercise, is designed to show what the student now knows and understands as a result of the learning experience. The teacher can use these responses to implement future lessons targeted at actual student needs in order to more fully develop the concept. This type of assessment does not have to be a burden to the teacher. By randomly checking 3-5 student responses to the OUT question, the teacher will likely acquire a feeling for the level of mastery students have or identify points that have need of further refinement.

Taking useful notes is critical to student success. Embracing that students need to be taught effective note-taking and organizational skills and providing a forum where these skills are modeled and practiced will increase their chance for success, not only within science, but across all disciplines.

Graphic Organizer for Interactive Notebook

Header Info	
IN question	THROUGH section Can be multiple pages...
OUT question	