

Laboratory Notebook

A lab notebook is a primary record of research. Researchers use a lab notebook to document their hypotheses, experiments and initial analysis or interpretation of these experiments. The notebook serves as an organizational tool, a memory aid, and can also have a role in protecting any intellectual property that comes from the research.

Structure

The guidelines for lab notebooks vary widely between institution and between individual labs, but some guidelines are fairly common. The lab notebook is usually written in as the experiments progress, rather than a later date. Many say that lab notebook should be thought of as a diary of activities that are described in sufficient detail to allow another scientist to follow the same steps.

Legal aspects

To ensure that data cannot be easily altered, notebooks with permanently bound pages are often recommended. Researchers are often encouraged to write only with unerasable pen, to sign and date each page, and to have their notebooks inspected periodically by another scientist who can read and understand it. In addition, “white-out” or similar correction fluids are not used and any mistakes (spellings, calculations, etc.) are usually lined out, but not completely obliterated, so that even these are available for others to see. All of these guidelines can be useful in proving exactly when a discovery was made, in the case of a patent dispute, and to show authenticity.

Book

One type of book sometimes used for lab notebooks is a composition book. These are bound in a similar fashion to books, consisting of sheets about twice as wide as a single page, folded along the spine, and traditionally sewn together. Composition books are thus more durable than spiral notebooks or those with perforated pages. Unlike these, however, individual pages are not intended to be torn out of a composition book.

Format

The format for reporting in lab notebooks is included in the guidelines that describe writing lab reports. The main difference, as noted above, is that lab notebooks are working documents. They still, however, follow the same kind of pattern, including writing out the planned procedure prior to coming to the lab. The exact content will, of course, depend upon the specific experiment being performed at the time.