



Integrating Technology in the Science Classroom

Students should not only be introduced to technology to access information but to supplement learning. Students should also be presented with content that can be applied to their own world and be found interesting.

I. Technology and Content Standards

There are content standards, both state and national, that are set for teachers to teach students. There are many organizations that promote national curriculum standards for science.

A. ISTE

B. National Committee for on Science Education

NCSE has compiled the grades to best fit the national standards.

C. NETS-T

D. AAAS

The American Association for the Advancement of Science (AAAS) has encouraged problem-based and student-centered approaches by using technology in the science classroom.

II. Authentic Learning Strategies Incorporating Technology

A teacher's goal should not be to teach students to memorize facts, but to gain knowledge. Technology greatly enhances this.

A. Hardware and Software

There are many different hardware and software tools available for use by both the teacher and student.

B. Levels of Cognition

As a teacher, technology that is incorporated into the classroom should focus on the different levels of cognition.

III. Technology and Creative Thinking Skills Instruction

A. Digital Tools

Digital cameras and digital microscopes are both valuable tools that can be used in a science classroom.

B. WebQuest

IV. Technology and Creative thinking Instruction

Technology is only showing a video, but using other types of technology to enhance learning.

A. Internet Based Lessons

Podcasts and Internet based lessons can provide students with a new way to be "in the classroom"

B. Hands on

It is not only important for teachers to use technology in an innovative way but provide students with hands-on activities that foster instruction.