

Do you enjoy any of the following activities?

- Thinking creatively
- Interacting with computers
- Interpreting the meaning of information for others
- Processing information
- Getting information
- Making decisions and solving problems
- Updating and using relevant knowledge
- Analyzing data or information
- Communicating with supervisors, peers, or subordinates
- Estimating the quantifiable characteristics of products, events, or information

If so, being a physicist may be the job for you!

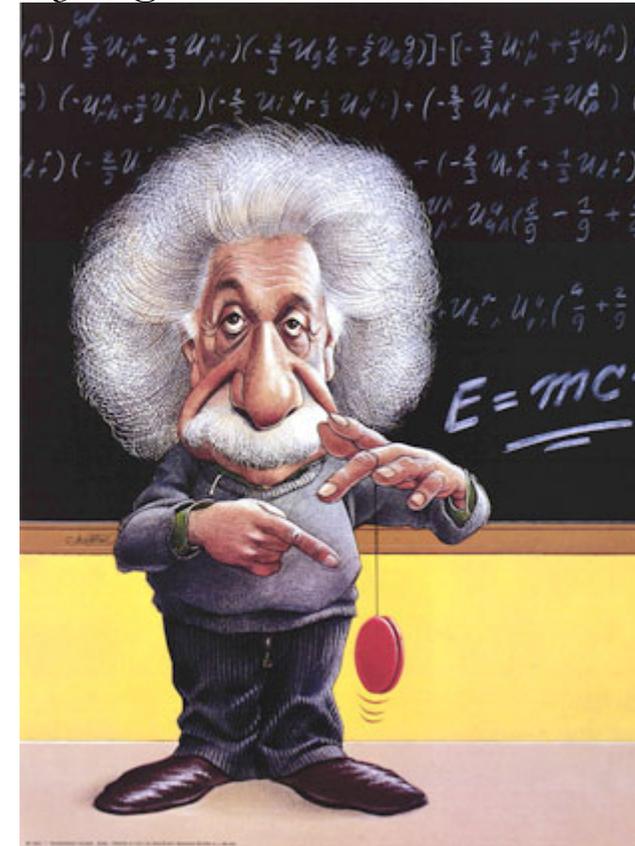


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Ms. Minck Science, per. 6

PHYSICIST

OCCUPATIONAL
INFORMATION

- *By Megan Buchanan*



Are you considering a career as a physicist?

WHAT DO PHYSICISTS DO?

There are different kinds of physicists, but some of the common tasks include:

- Performing complex calculations as part of the analysis and evaluation of data, using computers;
- Describing and expressing observations and conclusions in mathematical terms;
- Analyzing data from research conducted to detect and measure physical phenomena;
- Reporting experimental results by writing papers for scientific journals or by presenting information at scientific conferences;
- Designing computer simulations to model physical data so that it can be better understood;
- Collaborating with other scientists in the design, development, and testing of experimental, industrial or medical equipment, instrumentation and procedures;
- Direct testing and monitoring of contamination of radioactive equipment, and recording of personnel and planet area radiation exposure data;

-Observing the structure and properties of matter, and the transformation and propagation of energy, using equipment such as masers, lasers, and telescopes, in order to explore and identify the basic principles governing these phenomena;

-Developing theories and laws on the basis of observation and experiments, and apply these theories and laws to problems in areas such as nuclear energy, optics, and aerospace technology; and

-Teaching physics to students

WHAT KIND OF EDUCATION WILL I NEED?

A bachelor's degree is the minimum. A master's degree is good, but it is not required.

WHAT ELSE SHOULD I KNOW?

It is helpful to have a strong math background and familiarity with computers. Computer familiarity is especially important to have if you are a theoretical physicist, because they use computers a lot, to make calculations.

In addition to math you obviously need to have knowledge of physics, meaning physical principles, laws, their interrelationships, and applications to understanding fluid, material and atmospheric dynamics, and mechanical, electrical, atomic and sub-atomic structures and processes.

WHAT RESOURCES WILL I NEED?

Experimental physicists work in laboratories so they need lots of lab equipment such as lasers, monochromators, scanning probe microscopes, and signal generators. They also need plenty of liquid nitrogen to cool things down.

Theoretical physicists primarily use computers. Some of the software they use includes: analytical or scientific software, computer aided design software, development environment software, graphics or photo imaging software, and object or component oriented software.