disciplines | employment and funding | people | scientific communication

9-12

The direction of scientific research is affected by informal influences within the culture of science itself, such as prevailing opinion on which questions are most interesting or which methods of investigation are most likely to be

The early Egyptian, Greek, Chinese, Hindu, and Arabic cultures are responsible for many scientific and mathematical ideas and technological inventions. Modern science is based on traditions of thought that came together in

The strongly held traditions of science, including its commitment to peer review and publication, serve to keep the vast majority of scientists well within the bounds of ethical professional behavior. Deliberate deceit is rare and

Science disciplines differ from one another in what is studied, techniques used, and outcomes sought, but they share a common purpose and philosophy, and all are part of the same scientific enterprise. Although each discipline provides

Because science is a human activity, what is valued in society influences what is valued in science.

Funding influences the direction of science by virtue of the decisions that are made on which research to support. Research funding comes from various federal government agencies, industry, and private foundations.

The dissemination of scientific information is crucial to its progress. Some scientists present their findings and theories in papers that are delivered at meetings or published in scientific journals. Those papers enable scientists to

Scientists' nationality, sex, ethnic origin, age, political convictions, and so on may incline them to look for or emphasize one or another kind of evidence or interpretation.

6-8

Scientists' personal interests and viewpoints can influence the questions they investigate.

Accurate record-keeping, openness, and replication are essential for maintaining an investigator's credibility with other scientists and society.

No matter who does science and mathematics or invents things, or when or where they do it, the knowledge and technology that result can eventually become available to everyone in the world.

Important contributions to the advancement of science, mathematics, and technology have been made by different kinds of people, in different cultures, at different times.

Scientists are linked to other scientists worldwide both personally and through international scientific organizations.

Until recently, women and racial minorities, because of restrictions on their education and employment opportunities, were essentially left out of much of the formal work of the science establishment; the remarkable few who

Scientists are employed by colleges and universities, business and industry, hospitals, and many government agencies. Their places of work include offices, classrooms, laboratories, farms, factories, and natural field settings ranging

Scientists differ greatly in what phenomena they study and how they go about their work.

3-5

Human beings have different interests, motivations, skills, and talents.

Doing science involves many different kinds of work and engages men and women of all ages and backgrounds.

Science is an adventure that people everywhere can take part in, as they have for many centuries.

Clear communication is an essential part of doing science. It enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.

K-2

Everybody can do science and invent things and ideas.

Describing things as accurately as possible is important in science because it enables people to compare their observations with those of others.

In doing science, it is often helpful to work with a team and to share findings with others. All team members should reach their own individual conclusions, however, about what the findings mean.