Science Fair Categories with Suggested Topics

Behavioral and Social Sciences

Human and animal behavior, social and community relationships: psychology, sociology, anthropology, archaeology, ethology, ethnology, linguistics, learning, perception, urban problems, reading problems, public opinion surveys, educational testing, etc.

Biochemistry

Chemistry of life processes: molecular biology, molecular genetics, enzymes, photosynthesis, blood chemistry, protein chemistry, food chemistry, hormones, metabolism, etc.

Botany

Study of plant life: agriculture, agronomy, horticulture, forestry, plant taxonomy, plant physiology, plant pathology, plant genetics, hydroponics, algae, etc.

Chemistry

Study of nature and composition of matter and laws governing it: physical chemistry, organic chemistry (other than biochemistry), inorganic chemistry, materials, plastics, fuels, pesticides, metallurgy, soil chemistry, etc.

Computer Science

Study and development of computer software and hardware and associated logical devices: artificial intelligence, algorithms, data bases, networking and communications, computer graphics, computational science, programming languages, operating systems.

Consumer Science (6th throught 8th grade ONLY)

Testing and the comparison of consumer products for their intended use: consumer science draws from fields such as economics, sociology, psychology, law, and business

Earth and Space Sciences

The study of the earth and the universe: geology, mineralogy, physiography, oceanography, meteorology,

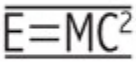
climatology, astronomy, geology, serology, seismology, geography, weather, paleontology, geophysics, tectonics, and planetary science.

Engineering

Technology projects applying scientific principles to manufacturing and practical uses: civil, mechanical, aeronautical, chemical, electrical, photographic, sound, automotive, marine, heating and refrigerating, transportation, environmental engineering, etc.

Environmental Sciences

Interdisciplinary academic field of the physical and biological sciences applied to the study of the environment, and the solution of environmental problems: air pollution and air quality, bioremediation, soil contamination and soil quality, ecosystems management, water pollution and water quality, environmental engineering, forestry, land use management, recycling, waste management.



Mathematics

Development of formal logical systems or various numerical and algebraic computations, and the application of these principles: calculus, geometry, abstract algebra, number theory, statistics, complex analysis, probability.

Medicine and Health

Study of disease and health of humans and animals: dentistry, pharmacology, pathology, ophthalmology, nutrition, sanitation, pediatrics, dermatology, allergies, speech and hearing, etc.

Microbiology

Biology of microorganisms: bacteriology, virology, protozoology, fungi, bacterial genetics, yeast, antibiotics, antimicrobials, etc.

Physics

Theories, principles and laws governing energy and the effect of energy on matter: solid state, optics, acoustics, particle, nuclear, atomic, plasma, superconductivity, fluid and gas dynamics, thermodynamics, semi-conductors, magnetism, quantum mechanics, biophysics, etc.

Science Fair Categories with Suggested Topics

Zoology

Study of animals: animal genetics, ornithology, ichthyology, herpetology, entomology, animal ecology, paleontology, cellular physiology, circadian rhythms, animal husbandry, cytology, histology, animal physiology, invertebrate neurophysiology, studies of invertebrates, etc.