

CATEGORIES FOR JUDGING

Exhibits are arranged in two divisions. SENIOR, for students in the 9th, 10th, 11th, and 12th grades, and JUNIOR, for students in the 6th, 7th, and 8th grades.

Within these two divisions, the projects are grouped into the following subject areas:

1. ANIMAL SCIENCES: Development, ecology, genetics, animal husbandry, pathology, physiology, and systematics.
2. BEHAVIORAL & SOCIAL SCIENCES: Clinical, developmental, cognitive and physiological psychology, and sociology.
3. BIOCHEMISTRY: General and structural biochemistry, and metabolism.
4. CELLULAR AND MOLECULAR BIOLOGY: Cellular and molecular biology, cellular and molecular genetics, and immunology.
5. CHEMISTRY: Analytical, inorganic, organic, physical, and general chemistry.
6. COMPUTER SCIENCE: Algorithms, data bases, AI, networking and communications, computational science, computer graphics, software engineering, programming languages, computer and operating systems.
7. EARTH AND PLANETARY SCIENCE: Climatology, weather, geochemistry, mineralogy, paleontology, geophysics, planetary science, and tectonics.
8. ENGINEERING (Materials & Bioengineering): Biological, civil, chemical, industrial, processing, material science.
9. ENGINEERING (Electrical & Mechanical): Electrical, computer, controls, mechanical, thermodynamics, solar, robotics.
10. ENERGY & TRANSPORTATION: Aerospace and aeronautical engineering, alternative fuels, fossil fuel energy, vehicle development, renewable energies.
11. ENVIRONMENTAL SCIENCES: Air pollution and air quality, soil contamination and soil quality, water pollution and water quality.
12. ENVIRONMENTAL MANAGEMENT: Bioremediation, ecosystems management, environmental engineering, land resource management, forestry, recycling, waste management.
13. MATHEMATICAL SCIENCES: Algebra, analysis, applied mathematics, geometry, probability and statistics.
14. MEDICINE & HEALTH SCIENCES: disease diagnosis and treatment, epidemiology, genetics, molecular biology of diseases, physiology and pathophysiology.
15. MICROBIOLOGY: Antibiotics, bacteriology, microbial genetics, and virology.
16. PHYSICS AND ASTRONOMY: Astronomy, atoms, molecules, solids, biological physics, instrumentation and electronics, magnetism and electromagnetism, nuclear and particle physics, optics, lasers, masers, theoretical physics, theoretical or computational astronomy.
17. PLANT SCIENCES: Agriculture, agronomy, ecology, genetics, photosynthesis, plant physiology, plant systematics, evolution.