

2010 GSDSEF Category Descriptions

The GSDSEF Category descriptions have been adapted from the Intel ISEF Handbook. The Scientific Review Committee will review final category placement and changes will be made as necessary.

1. Animal Sciences – Study of animal behavior, classification, development, pathology, taxonomy; animal ecology, animal genetics, animal husbandry, circadian rhythms, cytology, entomology, herpetology, histology, ichthyology, ornithology, paleontology, physiology, studies of invertebrates, etc.
2. Behavioral and Social Sciences – Human behavior; social and community relationships; anthropology, archaeology, circadian rhythms, educational testing, ethnology, learning, linguistics, perception, psychology, sociology, urban issues, etc.
3. Biochemistry – Chemistry of life processes; enzymes, food chemistry, hormones, metabolism, molecular biology, molecular genetics, photosynthesis, protein chemistry, etc.
4. Chemistry – Study of nature and composition of matter and laws governing it; fuels; inorganic chemistry, organic chemistry (other than biochemistry), physical chemistry; materials, metallurgy, pesticides, plastics, soil chemistry, etc.
5. Computer Science – Study and development of computer hardware; programming languages; networking and communications; robotics control systems; simulations/ virtual reality or computations science (including data structures, encryption, coding and information theory); algorithms, artificial intelligence, data bases, graphics, software engineering, etc.
6. Earth & Planetary Science – Climatology, geography, geology, geophysics, meteorology, mineralogy, oceanography, paleontology, physiography, seismology, speleology, tectonics, etc.
7. Engineering – Electrical & Mechanical – Computer engineering, controls, electrical engineering, mechanical engineering, robot mechanics, solar electric generation, thermodynamics, etc.
8. Engineering – Energy & Transport – Aerodynamics, aerospace and aeronautical engineering, alternative fuels, automotive & marine vehicle development, fossil fuel energy, heating & refrigeration, renewable energies, solar heating, wind energy, etc.