



2007-2008 New York City Metro Junior Science and Humanities Symposium

JSHS CATEGORIES OF COMPETITION

The organization of the final six (6) sessions at the National JSHS is based upon a review of all abstracts and the area of research suggested by the student. Student presenters must state on the abstract the major discipline and the sub-discipline of their research. The six (6) major disciplines in which awards will be made are:

Environmental science; Earth and Space Science

Engineering

Physical Sciences, including chemistry, physics, and astronomy

Life sciences

Medicine and Health; Behavioral and Social Sciences

Mathematics and Computer Science

The categories are further defined to assist students in choosing categories of competition and to better align judges in the proper sessions. Regional symposia may or may not choose to use these descriptive categories at the regional competition.

1. Environmental science; Earth and Space Science

Earth and space

Climatology, meteorology

Geochemistry

Geophysics

Planetary science

Tectonics

Environmental science

Environmental analysis-Pollution (air, soil, water) Environmental management, including bioremediation, ecosystems, land resource management, recycling, waste management)

2. Engineering

Aerospace and aeronautical engineering Bioengineering (consider Medicine & Health)

Chemical engineering

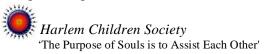
Civil engineering

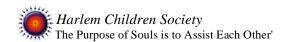
Electrical engineering (consider Mathematics and computer science)

Energy (consider multiple categories dependent upon research question)

Industrial engineering

Materials engineering (consider Physical sciences—chemistry) Robotics Software engineering







3. Physical Sciences, including chemistry, physics, and astronomy

Physics and astronomy

Astronomy

Physics-solid state, acoustics, electromagnetism, optics, particle, nuclear, atomic, plasma, superconductivity, fluid and gas Theoretical physics, Theoretical or computational astronomy

Chemistry

Analytical chemistry
Inorganic chemistry
Organic chemistry (other than biochemistry) Physical chemistry
Chemistry-materials, plastics, fuels, metallurgy

4. Mathematics and computer science -

Mathematics

Mathematics-theoretical Mathematics-applied Probability and statistics

Computer science

Algorithms, databases Artificial intelligence Networking and communications Software engineering Computer systems

5. Medicine and health/Behavioral sciences (includes study of diseases, pharmacology, physiology, pathology

Medicine & Health

Diseases, study of and molecular biology of diseases Epidemiology

Genetics

Physiology,

Pathophysiology

Pharmacology

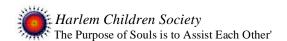
Biochemistry

General biochemistry

Chemistry of life processes – metabolism, molecular biology, molecular genetics,

Harlem Children Society

'The Purpose of Souls is to Assist Each Other'





enzymes, blood chemistry, protein chemistry, food chemistry, hormones

Behavioral sciences

Cognitive psychology Developmental psychology Physiological psychology Sociology

6. Life sciences, including general biology (i.e. animal sciences, plant sciences, ecology) and molecular/cellular, biochemistry, genetics

Biochemistry—Structural biochemistry
Microbiology – biology of microorganisms – bacteriology, virology, protozoology, fungi, bacterial, genetics, yeast, Molecular/cellular—including genetics, immunology

General biology

Animal science (developmental biology, ecology, genetics, pathology, physiology) Plant science (developmental, ecology,

Genetics, photosynthesis, plant physiology)

Pollution and impact upon ecosystems

