



Barack Obama International Baccalaureate World School

Advanced Academics, Balanced Education, and Compassionate Global Citizenship

Category: _____ **#** _____ **Board Number:** _____

Judge: _____

Grading of Science Fair Projects (Total of 100 points)

Item (s)	Points total
Title , max 6pts <ul style="list-style-type: none">• Center of board• largest text by far on display• bold, attention grabbing Question , max 6pts <ul style="list-style-type: none">• Starts with How, What, When, Who, Which, Why, or Where. Contains one factor (variable) that you can change in your experiment. Hypothesis , max 4pts <ul style="list-style-type: none">• Clearly stated educated guess Materials , max 4pts <ul style="list-style-type: none">• List all materials used	20 points
Procedures <ul style="list-style-type: none">• Experiment Description	20 points
Data <ul style="list-style-type: none">• What did you observe as you did your project?• Include charts, tables, graphs, and/or pictures.	30 points
Research report <ul style="list-style-type: none">• Title• Table of contents• Report Text• Bibliography	20 points
Conclusion <ul style="list-style-type: none">• What did you learn?• What were the possible errors that may have occurred or did occur?• Relate your conclusion back to your hypothesis.• Was the hypothesis right or wrong	10 points

What will the judge ask me?

When the judge comes to your project:

—stand up, stick out your hand and say:

—“Hi, my name is _____ and my project is _____ (state your title)”.

—Then, BRIEFLY summarize the project in 1 minute (maybe 2).

—Then, say: “Do you have any questions?”

PRACTICE this with friends and family – it will help with the nervousness.

Some judges will be judging their first science fair, while others will have judged several fairs at varying levels. Nevertheless there are many common questions and, the more you have thought about them, the better your interview experience will be.

20 Questions you should expect:

- Where did you get this idea?
- How did you come up with this title?
- What research did you do?
- What was your hypothesis?
- Why did you think that would happen?
- What were your independent and dependent variables?
- What was your control?
- What did you measure and how?
- How did you calculate that result?
- Why did you choose that amount, (or measurement, or piece of equipment, etc.)?
- How did you replicate the experiment?
- What does that graph tell you?
- How variable were your results and what might explain the variability?
- What did you base that conclusion on?
- Why/How are your findings important?
- Who might want to know this information?
- What would be the next experiment you would do?
- What was the hardest part (or most fun, or most exciting, or most surprising, etc.)?
- Who helped you?
- If you had to do it all over again, is there anything you would do differently?

MSEF Categories

0100 Behavioral and Social Sciences

The science or study of the thought processes and behavior of humans and other animals in their interactions with the environment studied through observational and experimental methods.

0200 Biochemistry

The study of the chemical basis of processes occurring in living organisms, including the processes by which these substances enter into, or are formed in, the organisms and react with each other and the environment. (Analytical, Medicinal, Structural, General)

0300 Inorganic Chemistry

The study of the properties and reactions of inorganic and organometallic compounds. Studies exploring the science of the composition, structure, properties, and reactions of matter **not** involving biochemical systems or carbon.

0400 Organic Chemistry

The study of carbon-containing compounds, including hydrocarbons and their derivatives. Studies exploring the science of the composition, structure, properties, and reactions of matter not involving biochemical systems.

0500 Earth and Environmental Science

Studies of the environment and its effect on organisms/systems, including investigations of biological processes such as growth and life span, as well as studies of Earth systems and their evolution. (Atmospheric science, climate science, environmental effects on ecosystems, geosciences, water science)

0600 Animal Sciences

This category includes all aspects of animals and animal life, animal life cycles, and animal interactions with one another or with their environment. Examples of investigations included in this category would involve the study of the structure, physiology, development, and classification of animals, animal ecology, animal husbandry, entomology, ichthyology, ornithology, and herpetology, as well as the study of animals at the cellular and molecular level which would include cytology, histology, and cellular physiology. (Animal Behavior, Cellular studies, development, ecology, genetics, nutrition and growth, physiology, systematics and evolution)

0700 Medicine and Health

This category focuses on studies specifically designed to address issues of human health and disease. It includes studies on the diagnosis, treatment, prevention or epidemiology of disease and other damage to the human body or mental systems. Includes studies of normal functioning and may investigate internal as well as external factors such as feedback mechanisms, stress or environmental impact on human health and disease. (Cell, organ, and systems

physiology, genetics and molecular biology of disease, immunology, nutrition and natural products, pathophysiology)

0800 Microbiology

The study of micro-organisms, including bacteria, viruses, fungi, prokaryotes, and simple eukaryotes as well as antimicrobial and antibiotic substances.

(Antimicrobial and antibiotics, applied microbiology, bacteriology, environmental microbiology, microbial genetics, virology)

0900 Physics and Astronomy

Physics is the science of matter and energy and of interactions between the two. Astronomy is the study of anything in the universe beyond the Earth. (atomic, molecular and optical physics, astronomy and cosmology, biological physics, computational physics and astrophysics, condensed matter and materials, instrumentation, magnetics, electromagnetics and plasmas, mechanics, nuclear and particle physics, optics, lasers, and masers, quantum computation and theoretical physics)

1000 Engineering

Studies that focus on the science and engineering that involve movement or structure. The movement can be by the apparatus or the movement can affect the apparatus. (Aerospace and Aeronautical Engineering, civil engineering, computational mechanics, control theory, ground vehicle systems, industrial engineering-processing, mechanical engineering, naval systems)

1100 Computer Science and Math

The study or development of software, information processes or methodologies to demonstrate, analyze, or control a process/solution. The study of the measurement, properties, and relationships of quantities and sets, using numbers and symbols. The deductive study of numbers, geometry, and various abstract constructs, or structures. (Algorithms, cybersecurity, databases, human/machine interface, languages and operating systems, mobile apps, online learning, algebra, analysis, combinatorics, graph theory, game theory, geometry and topology, number theory, probability and statistics)

1200 Robotics and Intelligent Design

Studies in which the use of machine intelligence is paramount to reducing the reliance on human intervention. (Biomechanics, cognitive systems, control theory, machine learning, robot kinematics)

1300 Botany

Studies of plants and how they live, including structure, physiology, development, and classification. Includes plant cultivation, development, ecology, genetics and plant breeding, pathology, physiology, systematics and evolution. (Agriculture and agronomy, ecology, genetics and breeding, growth and development, pathology, plant physiology, systematics and evolution)