

Knowing What Your Project Category Is

2019-20

Earth Science & Environmental Science (Follows the Scientific Discovery Process)

Earth science is the study of, but not limited to, volcanoes, earthquakes, weathering, erosion, and deposition; soils, rocks, fossils, minerals, crystals; ocean water, fresh water, and the water cycle; weather, weather instruments, air, wind, clouds, humidity, cold, air pressure, climate, astronomy, moon, sun, tides, planets, asteroids, meteors, stars, galaxies, heat, smog, particles in the air, global temperatures, particles in the water, and pollutants of sorts.

Life Science (Follows the Scientific Discovery Process)

Life science is the study of, but not limited to, human, animal, plant, insect, and microorganism behavior; forest, desert, tropical, grassland, wetland and other environments and their effects on living organisms; and food chains, plant cycles, life cycles, and ecosystems.

Chemistry (Follows the Scientific Discovery Process)

Chemical science is the study of but not limited to solids, liquids, gases; decomposition and the change of matter (physical and chemical changes); and the mixture and uses of chemicals.

Physics, Astronomy, & Mathematics (Follows the Scientific Discovery Process)

Physics is the study of but limited to simple machines, gravity, forces (push and pull), weight, magnets, electricity, speed, flight (lift), motion, heat, light, and sound. Astronomy is the study of planets, stars, galaxies and other objects in space. Projects may deal with experimenting with rotation, revolution, seasons, tides, gravity and motion, light, brightness and color of stars, micrometeorites, space particles, and asteroid collisions. Math projects have to do with, new proofs, geometric studies, distances of objects in space, mathematical formulas, and using mathematical calculations to prove ideas.

Consumer Science and Product Testing (Follows the Scientific Discovery Process)

Consumer science is the study of, but not limited to, testing new invented products, testing products we use and eat everyday--shampoo, detergents, soaps, diapers, stain removers, popcorn, cereals, gum, soda pop, potato chips, paper towels, bandages, etc. This makes the public aware of products that might not perform the way companies say they will perform.

Engineering (Follows the Engineering Design Process)

Engineering is the designing, building, and testing of a made-at-home product (prototype). It has to have a purpose. It is the invention category of the science fair. It is to be built and work according to the requirements set up by the student. After it is built it needs to be tested to see if it works according to the requirements set up. If it doesn't work, the student needs to go back, make adjustments, and retest. Adjustments need to be made until it works. The product results have to be useful, and it connects to real world understanding. **The prototype cannot be made from a kit or copied from an existing product.**

Computer Science (Follows the Computer Design Process)

Computer science is the designing and writing a program code for a computer. The program code is to be written and work according to the requirements set up by the student. After the program code is written, it needs to be tested to see if it works properly on the computer according to the requirements set up. If it doesn't work properly, the student needs to go back and make adjustments and retest. Adjustments need to be made until it works properly. The results have to be useful, and it applies the value of the program to real world situations.