Biological Sciences: Experiments that involve living things or once living things. Examples include: Animal Science, Biochemistry, Biotechnology Techniques, Cellular & Molecular Biology, Genetics & Genomics, Human Biology & Health, Mammalian Biology, Medical Biotechnology, Medicine & Health Science, Microbiology, Plant Biology, Zoology.

Environmental Sciences / Ecology: Experiments that involve the environment and the relationships of living things to each other and/or to the environment. Examples include: Studies of organisms in their habitat, relationships between various organisms, and studies on how people's actions affect the environment.

Physical Sciences: Experiments involving non-living things, math, computer, and engineering. Examples include: Aerodynamics, Hydrodynamics, Astronomy, Chemistry, Crystal Growth, Cooking, Evaporation, Music, Photography, Digital Photography & Video, Physics, Sports Science, Civil Engineering, Electricity & Electrical Circuits, Energy & Power, Environmental Engineering, Materials Science, Mechanical Engineering, Solar Power, Computer Science, Probability and Computer Games.

Earth Sciences: Experiments involving the earth and physical phenomena. Examples include: Geology, Astronomy, Ocean Sciences, Weather & Atmosphere.

Behavioral / Social / Health Sciences: Experiments involving health, psychology, or consumer/product testing. Examples include: Perception studies, aptitude and attitude surveys, product comparisons, and various exercise studies.

Software / Technology: Projects involving developing a software program or app. Examples include: Internet of Things, Microcontrollers, Networking, Data Communications, Optics, Sensors, Algorithms, Cybersecurity, Databases, Apps.

Device / Engineering / Product: Projects involving designing and building a device or a product. Examples include: Arcade game, bridge, bubble machine, water filter, launcher, mini hovercraft.

STEM Fair **Project Categories**

What is the STEM Fair? Where do I start?

CCMMS STEM FAIR

JUDGING & AWARDS

The purpose of the STEM Fair is to give students the opportunity to put the Engineering Design Process or the Scientific Method into practice while learning to work collaboratively in a design team. Choose a project from one of the project categories found on the left and do one of the following: Conduct an Experiment

- Develop a Software Application, Build a device or Create a Product

Follow the Engineering Design Process or the Scientific Method which provide a set of steps to go from identifying a problem or a need, to creating and developing a solution that solves the problem or meets the need.

1. ASK

The

Design

3. PLAN

5. IMPROVE

4. CREATE

• Test It Out!

Observation The 2. IMAGINE **Scientific Engineering** phalysis Method **Process**

Experiment

The day of February 11th, students will set up and present their projects to judges from NCSU and Centennial Campus Partners. The judges will recognize the top projects. Winners will receive a certificate and a chance to visit NCSU for a learning experience in the Spring.

STEM Fair Date

February 11, 2020 at CCMMS Register your project by Thursday, January 30, 2020. Winners will be announced the same day, after the fair. Visit, http://bit.ly/CCMMSSTEMFair2020 to register. If working in a group, only 1 person needs to register.

Design Teams

Design Teams consist of 1-3 students collaboratively working together.

Budget

Projects should cost \$20 or less.

Resources

www.sciencebuddies.org www.ncsciencefair.org www.sciencevideos.com