Mad Science Program Description:
In this introductory STEM program, kids explore a variety of introductory topics and learn about the wonders of both the life and physical sciences. They explore themes and answer questions like “What makes your hair stand up?”, “Is it a magnet or magic?”, and “Just what are carbs, anyway?”.

HARNESSING HEAT
Children learn about the science of heat and heat transfer. They get energized and learn about molecular motion by acting like hot and cool molecules. Things really heat up as children explore insulators and conductors, temperature-sensitive equipment, a tactile temperature test, and a sand-shaking experiment with frictional heat.

MISSION: NUTRITION
Children focus on nutrition and fitness, including the essential components of a healthy diet and lifestyle. They learn how to read nutrition labels, and sort foods according to their nutrient contents. An experiment with emulsions shows them how bile helps our bodies digest fats. Children conduct a variety of hands-on experiments to understand how food fuels our bodies.

LIGHTS... COLOR... ACTION!
In this investigation into optics, children explore the science of light and color. They observe how colored lights can blend to make white light, and how a prism can separate white light into colors. A hands-on chromatography investigation reveals how inks can be separated into pigments. Experiments with filters and UV light provide a deeper understanding of our vision and the electromagnetic spectrum.

MAGNETIC MAGIC
Magnetic Magic reveals the science behind the mysteries of magnetism. Children explore magnets and their properties, and learn about their forces of attraction and repulsion. They use magnetic wands, visualize magnetic fields, and magnetize paper clips. From exciting electromagnets to gravity-defying magnetic levitation, to the poles of the planet Earth, magnetic magic is all around us!

OPTICAL ILLUSIONS
Children explore the physics and psychology of optical illusions. They learn how our eyes can trick our brains as they observe and interact with objects that seem to change right before their eyes! Children manipulate flexible mirrors and explore the world with inverted vision. They explore the optics of classic mirror illusions, and experiment to create illusions of their own.

SONIC SOUNDS
By exploring the science of sound, children learn about sound waves and how our ears perceive them. They model the way sound moves through solids, liquids and gasses, and then experiment with making sound travel through different shapes and materials to create

cool sounds with different frequencies and tones. They interact with sound-sensitive lights, and re-engineer their voices with voice-distorting technology!

WATTS UP

Children discover the world of static electricity. They explore electroscopes, and experiment to make feathers levitate within a static field. From lightning storms to wireless lighting, the Van de Graaff generator reveals the exciting and invisible actions of electrons in a brilliant, hair-raising display!

SMELLY SCIENCE

The science of scents is in the air! Children will learn about our sense of smell and put their noses to the test as they experiment with the chemistry of aromas. From human nasal passages to animal adaptations, from enticing aromas to stinky stenches, the nose knows!