



Children of all ages will discover how hot and cold science can be as they take a journey through the world of Fire & Ice!

SUMMARY:

Join us for SAFE and scientific fun with fire and ice! Learn about the amazing properties of fire and combustion when we produce a flaming fireball! Then, cool off with spectacular demonstrations involving dry ice as we explore the science behind this amazing frozen gas. Children will be dazzled and entertained with foggy dry ice storms, piezo poppers and even a special Mad Science “burp” potion will amaze children as they learn about chemical reactions, air pressure and the states of matter. Get ready for some sizzlin’ excitement!

EDUCATIONAL VALUE:

This class introduces children to the physic facts on heat and states of matter. Children will be exposed to many ideas, including that fire needs three elements to burn: Heat, fuel, and oxygen. They will see paper that burns with no ashes as they learn about flammability and combustion. Children will understand that matter takes up space, and a vacuum may be created by using fire to burn up oxygen.

TAKE-HOME MESSAGE:

- 1 Fire needs heat, fuel and oxygen.
- 2 Dry ice goes from a solid to a gas, skipping the liquid phase.
- 3 Some fuels are more combustible than others.



NORTH CAROLINA ESSENTIAL STANDARDS:

- K.P.2 Understand how objects are described based on their physical properties and how they are used.
- 2.P.2.1 Give examples of matter that change from a solid to a liquid and from a liquid to a solid by heating and cooling
- 3.P.2 Understand the structure and properties of matter before and after they undergo a change.
- 3.P.3.2 Recognize that energy can be transferred from a warmer object to a cooler one by contact or at a distance and the cooler object gets warmer.
- 4.P.2.1 Compare the physical properties of samples of matter (strength, hardness, flexibility, ability to conduct heat, ability to conduct electricity, ability to be attracted by magnets, reactions to water and fire).
- 4.P.3.1 Recognize the basic forms of energy (light, sound, heat, electrical, and magnetic) as the ability to cause motion or create change.
- 5.P.2.3 Summarize properties of original materials, and the new material(s) formed, to demonstrate that a change has occurred.
- 5.P.3 Explain how the properties of some materials change as a result of heating and cooling.
- 6.P.2 Understand the structure, classifications and physical properties of matter.
- 6.P.3.1 Illustrate the transfer of heat energy from warmer objects to cooler ones using examples of conduction, radiation and convection and the effects that may result.