

The What Can We Make? Family Make

Make something light up, blink and dazzle us with your Inventive use of up-cycled materials and LED's. We have the LED's, batteries, and a closet full of creative opportunities. We have made some glowing eyed bugs, robots, and light tube examples. But what we're really interested in is what you can invent with these materials. Your project can be very small or truly epic. We will photograph your creation and post to our education blog and face book during pulse festival to showcase the creativity at the museum.

LED light-emitting diode.

A light-emitting diode, LEDs are used as indicator lamps in many devices such as key chain lights and remote controls, and are increasingly used for other lighting. The First LEDs emitted low-intensity red light, but modern versions are available in a wide variety of colors, with very high brightness. LEDs have many advantages over incandescent lights including lower energy consumption, longer lifetime, improved robustness, smaller size, and faster switching.

In the Gallery:

Students visiting Telfair Museums *Leo Villareal* exhibition will be introduced to the work of the most prominent light sculpture of this generation and a pioneer in the use of light emitting diodes (LED) and computer-driven imagery. The LED Villareal uses dance in patterns driven by micro controllers (small simple computers on a chip). The Computers run programs that are established according to certain algorithms. An algorithm in its simplest form is a way of achieving an outcome in a step by step manner. Students experience algorithms whenever they follow step by step instructions. A few examples are recipes, board game rules, shampoo instructions. Students can create their own algorithms for activities, and a good place to start is in the Melaver studio with the LED *wcwm?* Family Make.

In the studio:

We will have plenty of examples laid out to show you some of the potential and our studio assistant can help you find the materials you need. Have your student establish an algorithm, a list of step by step instructions, for whatever they want to build and then follow and adjust those instruction as they are executed and altered through creation.

The LED has two wires coming from it the short one is called a Cathode and is the negative while the longer wire is called the Anode and is the positive. Line those up with the positive and negative sides of one of our batteries and you will have light. The battery should last about a week but the LED will be good forever. The next question is what you will do with it.

Suggested Vocabulary

Color Field painting is characterized primarily by large fields of flat, solid color spread across areas of unbroken flat surfaces. The movement places less emphasis on gesture, brushstrokes and action in favor of an overall consistency of form and process.

Pattern is a type of theme of recurring events or objects, sometimes referred to as elements of a set of objects.

Algorithms are used for calculation, data processing, and automated reasoning. In simple words an algorithm is a step-by-step procedure for calculations.

To have **color** you must have **light**. People see in red, blue and green, so when light strikes a red apple, the green and blue wavelengths are absorbed by the object and the red is reflected. The study of **light** and the interaction of light and matter is termed optics. The observation and study of optical phenomena such as rainbows and the aurora borealis offer many clues as to the nature of light as well as much enjoyment.