

# **Science Overnight**

## **Private Science Overnight Themes**

Each of Science Museum Oklahoma's private Science Overnights includes a live science show, a Kirkpatrick Planetarium show, and access to all of the museum's permanent exhibits.

Groups can choose from the following themes:

- Hunger Games
- Star Wars
- Grossology (Biology)
- Chemistry

- Evening with Einsten/Night with Newton (Physics)
- Crime Scene Investigation
- Wizard Science

## **Hunger Games**

Enter the world of Katniss Everdeen — full of science fiction and fantasy! Brush up on your archery skills and learn the art of survival. Learn to camouflage yourself in order to trick those who might be hunting you (or those you may be hunting). Help to defeat the Capitol and bring peace back to this fragmented world of tomorrow.

#### Sample Activities:

- Bow Making
- Camouflage (science of disguise and concealment)
- Knots, Traps, and Survival Straps Bracelets
- Animal Encounters
- Survival Pack and Compass Challenge Course
- Disorientation Challenge

• Water Filtration

## **Star Wars**

Dress as your favorite Jedi Knight and jump to hyperspace as you head to a galaxy far, far away. Join SMO as we go deep into the science of light sabers and explore the forces of both Isaac Newton and Yoda! May the Force be with you!

#### Sample Activities:

- Cryogenics: the effects of extreme cold on organic materials
- Robotics Challenge
- Build a miniature lightsaber

- Mini Land Speeder (Engineering Challenge)
- Parachutes and Gliders
- Use the Force (of static electricity)
- Giant Hovercraft rides

# **Grossology (Biology)**

Grossology, the science of really gross things — we combine solid science with disgusting fun! This icky, sticky hands-on experience teaches us how much snot our body makes a day, how diapers DOO what they DOO, what you are made of, and how you perceive things!

## Sample Activities:

- Poop on a Stick
- Edible Insect Treats
- Human Physiology Experiments
- Make your own Snot
- Science of Diaper Goo
- Blood Typing

## Chemistry

Channel your inner Mad Scientist with mind blowing chemical reactions! Partake in wild experiments that are hot, cold, colorful, or explosive! Learn about the composition of our world, and how some simple changes can have big consequences. This night is sure to be a BLAST!

### Sample Activities:

- Liquid Nitrogen Experiments
- Pennies to Gold
- Bleeding Paper (acids and bases)
- Volcanoes & Elephant Toothpaste
- Dust of Doom
- Slime and Oobleck

## "Evening with Einstein"/ "A Night with Newton" – (Physics)

Ready to dodge frostbite with a non-Newtonian fluid and discover the Leidenfrost effect? Can YOU survive 300,000 volts of electricity? Attempt the mastery of simple machines, rockets and bubbles as your group has a shockingly good time exploring the world of physics!

## Sample Activities:

- Parachutes and Gliders (the physics of flying and falling)
- Van De Graff Generator (static electricity)
- Dry Ice and Liquid Nitrogen Demos
- Science of Non-Newtonian Fluids: Oobleck
- Reaction Rockets
- Circuit Science (build a flashlight, circuit blocks, etc.)

## Crime Scene Investigation, a Night of Forensic Fun!

Oh no! A crime has been committed at Science Museum Oklahoma, and we need your help to solve it! We will lift fingerprints, extract DNA, interrogate suspects, and much more! The science of solving crimes awaits you. Pack your magnifying glass and your badge, because we have a case to crack!

#### **Sample Activities:**

- Lifting and Identifying Fingerprints
- Impressions analysis
- DNA Extraction
- Blood Type Analysis

- Coding and Decoding Secret Messages
- Eyewitness Testimony

## **Wizard Science**

Your letter has arrived by owl and it's time to learn to be a wizard! Join us at Science Museum Oklahoma as we explore the science of magic — we will concoct our own potions, play wizard sports, work on our care of almost magical creatures class, and much more. Be sure to use your wands wisely – you don't want to end up in detention!

### Sample Activities:

- Spell Programming
- Magic Messages (disappearing/invisible ink)
- Care of Almost Magical Creatures
  Class
- Levitation Science
- Frozen wizard drinks
- Wizard Sport Practice
- Dueling