

# CSI Lessons

Title	Time	Summary
<b>Are We Cool or What?</b> 2 <sup>nd</sup> – 4 <sup>th</sup> Grade	<b>3 days;</b> <b>45 min.</b> <b>per day</b>	Using temperature probes, students measure and compare temperatures, change variables, interpret and summarize graph results.
<b>Heart Rate and Exercise</b> 2 <sup>nd</sup> and 5 <sup>th</sup> Grade	<b>3 days;</b> <b>45 min.</b> <b>per day</b>	Using heart rate monitors, students measure and compare standing and stepping heart rates, analyze data and graph results.
<b>Sock It to Me</b> 4 – 6 <sup>th</sup> Grade	<b>3 days;</b> <b>60 min.</b> <b>per day</b>	Using temperature probes and digital microscopes, students investigate what happened and what can be done to prevent further injuries, after a bitter snowstorm catches some skiers by surprise.
<b>On the Surface</b> 5 <sup>th</sup> and 6 <sup>th</sup> Grade	<b>3 days;</b> <b>45 min.</b> <b>per day</b>	Using temperature probes and digital microscopes, students investigate the causes of a malfunctioning space suit.
<b>Hold Everything! Comparing Insulators</b> 3 <sup>rd</sup> and 4 <sup>th</sup>	<b>3 days;</b> <b>45 min.</b> <b>per day</b>	Using temperature probes, students will compare cold temperatures from two different cups, and determine which cup is a better insulator.
<b>The Heat is On!</b> 5 <sup>th</sup> and 6 <sup>th</sup> Grade	<b>3 days;</b> <b>60 min.</b> <b>per day</b>	Using a variety of probes, students will conduct controlled investigations to explore the relationships between heat and temperature, Celsius and Fahrenheit, and matter. A Stem and Leaf plot and a double-bar graph will also be created from the data gathered.



# Mobile Lab Guidelines

- This is teacher training as well as student training; therefore it is *mandatory* that the teacher **is present and participating** *at all times* during the lessons (in accordance with Grant guidelines).
- Please avoid teacher absences during Mobile Lab days.
- One lab per school per year is available, for up to one week. **Please have students ready to work in pairs.**
- **One grade level** may schedule CSI lessons for the week, **or** one grade level can schedule a multimedia project (PowerPoint, iMovie).
- Note the total time each lesson takes, and plan your schedule accordingly. Please include a ten-minute break between lessons.
- Due to the nature of the equipment, we will need to stay in one room during the entire day.
- Please provide a safe and secure environment for overnight equipment storage.
- Bathroom breaks *before* the lessons are helpful.
- We will be covering a multitude of Arizona State Standards, especially in the areas of Math, Science, and Technology. Many teachers extend the lesson with a Written Language activity. Let us know if you need any ideas!

