

# Jr High Summer Institute 2010

Week 4  
July 26-July 30, 2010

In Nursing, students will learn the importance of handwashing, how to start an IV, perform a physical assessment including vital signs, witness a birth and assess a newborn. Also learn about the exciting world of laboratory medicine. Students will begin to understand the challenges of working in nanotechnology by first discovering the true scale of the nanometer, then they will investigate the hidden atomic forces of chocolate and use shape memory alloys to create a launcher for a balsa wood airplane. In the Biotechnology portion of class students will get a chance to work with their own DNA, do some crime scene investigating, sample the microbial environment and use a microscope.

<b>Nursing &amp; Science: Week 4 July 26th, 2010</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Instructor</b>
<b>8:00 - 9:00 a.m drop off</b>	drop off	drop off	drop off	drop off	drop off	Camp Counselor
<b>9:00 - 10:45 (1 hour 45 min) Block A</b>	Introduction to the Nursing Lab and High Fidelity Human Patient Simulators What is a Nurse? Handwashing 101	Assessing a Patient How to start an IV (intravenous) via a virtual computer simulation	Be a Nurse Workshop: Vital Signs and Human Patient Simulator Assessment (SimMan)	Noelle Gives Birth (Human Patient Simulator) Working in the Nursery: Assessing and Taking care of Babies (SimBabies)	The Exciting World of Laboratory Medicine	Dr. Diane Morrey
<b>10:45-11:05 (20 min) break</b>	20 min Break	20 min Break	20 min Break	20 min Break	20 min Break	Camp Counselor
<b>11:05 - 12:50 (1 hr 45 min) Block B</b>	Introduction to nanotechnology, working in the cleanroom	Building in nanoscale	Investigating Chocolate: View the atomic forces in various chocolate samples	Introduction to Nitinol, a shape memory alloy	Design airplane launcher using Nitinol	Dr. Kathy Flynn
<b>12:50 - 1:40 (50 min lunch)</b>	50 min Lunch	50 min Lunch	50 min Lunch	50 min Lunch	50 min Lunch	Camp Counselor
<b>1:40 - 3:25 (1 hr 45 min) Block C</b>	Lecture: Microbes - Friend or Foe? Demo: Microscopes Labs: Germs & Food	Lecture: Genetic Engineering Demo: pGLO Bacteria Name Writing Labs: Bacterial Transformation	Lecture: We are what we eat Demo: Enzymes Labs: Proteins, Fats & Carbs	Lecture: Water, the Universal Solvent Demo: Kool-Aid Ingredients, How do we "un-mix" them? Labs: Kool-Aid Science and DNA Spooling	Lecture: How to Catch a Thief Demo: Who-dun-it? Murder in the Classroom Labs: DNA Fingerprinting	Dr. Shane Ramey
<b>3:30 Pick-UP</b>	Pick Up	Pick Up	Pick Up	Pick Up	Pick Up	Camp Counselor