



JERSEYSTEM

LAB 101: Intro to Chemistry

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Syllabus Details

- Lesson 1: Engineering - Build the "best" marble roller coaster
- Lesson 2: Microscopy - Use microscopes to explore the environment and their building blocks
- Lesson 3: Reactions - Develop optimal conditions to produce Elephant's toothpaste.
- Lesson 4: Molecules - Act as atoms to create molecules, and learn to use 3D models
- Lesson 5: Solutions and Polymers - Explore concepts of crystals, polarity, mixtures, solutions, and viscosity
- Lesson 6: Proteins: Measure the physical strength and chemical activity of proteins
- Lesson 7: Surfactants - Learn about non-polar materials, soaps, and emulsions
- Lesson 8: DNA - Extract and compare DNA from different organisms.
- Lesson 9: Chromatography - Employ analytical techniques to study chemical mixtures and solutions.
- Lesson 10: Field Trip - Visit local area labs and technical conferences to see chemistry in action.

Program Structure (2hrs)


15 Min	Introduce concept and procedures
45 Min	Experimentation
15 Min	Discussion
30 Min	Follow up experimentation and demonstration
15 Min	Presentation and wrap up


NJ Science Standards

- MS-PS1-1
Develop models to describe the atomic composition of simple molecules and extended structures.
- MS-PS1-2
Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.
- MS-PS1-3
Gather and make sense of information
- MS-PS1-6
Undertake a design project

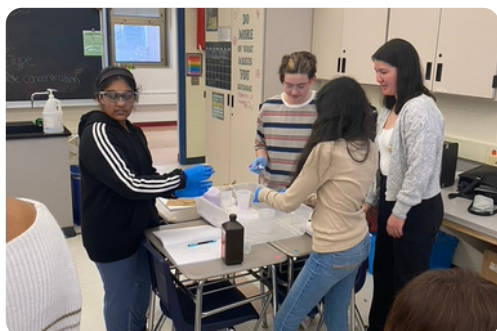
LET'S TALK!

 jerseystem.org/contact-us

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Active Learning



Field Trip



Industry Speaker