

DOING SCIENCE: THE PROCESS OF SCIENTIFIC INQUIRY

New York State Science Core Subject Learning Standards – The Living Environment: Intermediate Level

Lesson	Standard	Description
3	5	Compare the way a variety of living specimens carry out basic life functions and maintain dynamic equilibrium.
3, 4	7	Describe the effects of environmental changes on humans and other populations.

New York State English Language Core Subject Learning Standards: Intermediate Level

All lessons	1	Relate new information to prior knowledge and experience.
All lessons	1	Make distinctions about the relative value and significance of specific data, facts, and ideas.
All lessons	3	Analyze, interpret, and evaluate ideas, information, organization, organization, and language from academic and nonacademic texts.
1, 3, 4	3	Develop arguments with effective use of details and evidence that reflect a coherent set of criteria.

New York State Mathematics Core Subject Learning Standards: Intermediate Level

All lessons	1	Apply a variety of reasoning strategies.
All lessons	1	Make conclusions based on inductive reasoning.
3, 4	2	Understand, represent, and use numbers in a variety of equivalent forms (integer, fraction, decimal, percent, exponential, expanded and scientific notation).
3, 4	2	Understand and apply ratios, proportions, and percents through a wide variety of hands-on explorations.
1, 3	3	Add, subtract, multiply, and divide fractions, decimals, and integers.
3, 4	3	Apply concepts of ratio and proportion to solve problems.
3, 4	4	Represent numerical relationships in one- and two-dimensional graphs.

New York State Interdisciplinary Problem Solving Learning Standards: Intermediate Level

NEW YORK ALIGNMENT FOR NIH SUPPLEMENT DOING SCIENCE: THE PROCESS OF SCIENTIFIC INQUIRY

3, 4	1	Analyze science/technology/society problems and issues that affect home, school, or community, and carry out a remedial course of action.
1, 3, 4	1	Observe phenomena and evaluate them scientifically and mathematically by conducting a fair test of the effect of variables and using mathematical knowledge and technological tools to collect, analyze, and present data and conclusions.
3, 4	2	Participate in an extended, culminating mathematics, science, and technology project.
New York State Health Core Subject Learning Standards: Intermediate Level		
3, 4	1	Analyze the multiple influences which affect health decisions and behaviors.
3, 4	2	Demonstrate personal and social skills which enhance personal health and safety.
New York State Interconnectedness: Common Themes Learning Standards: Intermediate Level		
All lessons	2	Use models to study processes that cannot be studied directly.
1	2	Demonstrate the effectiveness of different models to represent the same thing and the same model to represent different things.
3, 4	5	Use simple linear equations to represent how a parameter changes with time.
3, 4	6	Use graphs of information for a decision-making problem to determine the optimum solution.