Syllabus Mapping:

**NYS Living Environment Regents Exam**

**Science and the Living Environment**

JoVE Core Chapter 1: Scientific Inquiry
- 1.3 The Scientific Method

JoVE Science Education: Lab Manual — Introductory Biology
- Scientific Method

**Mechanisms of Genetics**

JoVE Core Chapter 1: Scientific Inquiry
- 1.1: What is Biology?

JoVE Core Chapter 2: Chemistry of Life
- 2.15 pH

JoVE Core Chapter 3
- Macromolecules

JoVE Core Chapter 4
- Cell Structure and Function

JoVE Core Chapter 7
- Metabolism

JoVE Core Chapter 8
- Cellular Respiration

JoVE Core Chapter 9
- Photosynthesis

JoVE Science Education: Lab Manual — Introductory Biology
- Physiology of the Circulatory System
- Cell Structure
- Enzyme Activity

**Homeostasis and the Human Body**

JoVE Core Chapter 12: Circulatory and Pulmonary Systems
- 12.14 Sex-linked Disorders
Reproduction

JoVE Core Chapter 10
- Cell Cycle and Division

JoVE Core Chapter 11
- Meiosis

JoVE Core Chapter 25
- Reproduction and Development

JoVE Science Education: Lab Manual — Introductory Biology
- Cell Division
- Microbial and Fungal Diversity

Genetics

JoVE Core Chapter 13
- DNA Structure and Function

JoVE Core Chapter 14
- Gene Expression

JoVE Core Chapter 15: Biotechnology
- 15.1 What is Genetic Engineering?

JoVE Science Education: Advanced Biology — Genetics
- An Overview of Gene Expression
Evolution

JoVE Core Chapter 1: Scientific Inquiry
- **1.1 What is Biology?**
- **1.7 Taxonomy**
- **1.8 Phylogeny**

JoVE Core Chapter 30
- **Speciation and Diversity**

JoVE Core Chapter 31
- **Natural Selection**

JoVE Science Education: Lab Manual — Introductory Biology
- **Genetics of Organisms**
- **Artificial Selection**
- **Evolutionary Relationships**
- **Extinction**
- **Microbial and Fungal Diversity**
- **Animal Diversity**
- **Plant Diversity**

Ecology

JoVE Core Chapter 27
- **Ecosystems**

JoVE Core Chapter 28
- **Population and Community Ecology**

JoVE Core Chapter 29
- **Biodiversity and Conservation**

JoVE Science Education: Lab Manual — Introductory Biology
- **Energy Dynamics**