

# Bring the Power of Computer Models to your High School Science Curriculum with Science+C

***\$1,000 stipend for MA teachers who attend the 2023 Science+C Summer Institute!  
July 24 -28, Southbridge, MA.***



Science+C enhances your existing Biology, Chemistry or Physics core courses with units on computational modeling. The units were developed by teachers to meet NGSS standards to build and reinforce student science learning while introducing them to computing—and its importance in science! Teach your students valuable skills in computational thinking by using, decoding, and modifying computer models. **Science+C materials will be available free to all schools and teachers for the 2023/24 school year!**

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**Teachers - Sign up for our Summer Institute: <https://go.edc.org/SciencePlusCInterest>**

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## Science+C offers multiple benefits:

- 1 Science+C units embed computing skill development within the core science courses: **Biology, Chemistry, and Physics.**
- 2 The units within each course include lessons on **key science topics aligned to the NGSS**, while building **foundational computer modeling skills**. Students learn to create, innovate, and solve problems by using, decoding, and modifying computer models.
- 3 The computer modeling tool used in the units, NetLogo Web, was specifically designed for online use. Student materials will be provided online and are fully customizable to fit **remote and hybrid learning environments**.
- 4 **No previous computational modeling experience is required!** Step-by-step instructions and student and teacher workbooks, developed by experienced Science+C teachers and co-designers, are available online, for free, to prepare you to use best practices in integrating models and modeling into STEM classrooms.

Visit our website at [scienceplusc.org](https://scienceplusc.org) or email us at [SciencePlusC@edc.org](mailto:SciencePlusC@edc.org)

- **Science+C units include tools and techniques where students Use, Decode, and Modify computational models in support of the Code.org and Next Generation Science Standards.**
- **\$1,000 stipend available for the July 24-28 summer PD in Southbridge, MA**

## Science+C Units:

Introductory Unit for all 3 Subjects

- Epidemic: Introduction to Modeling and Simulation

Units for each subject area.

Note that teachers can choose how to sequence the units to best fit their courses.

### Biology+C Units

- Simple Ecosystems: Energy Flow in an Ecosystem
- Experimenting with Photosynthesis
- Enzymes: Food Digestion
- Homeostasis: Food Digestion
- Natural Selection: Natural Selection in Moths
- Genetics: Phenotypes and Genotypes
- Ecosystems Dynamics: Balancing an Ecosystem

### Chemistry+C Units

- Matter: Physical Change of Salt in Water
- Atomic Structure: Periodic Trends
- Chemical Reactions: Photosynthesis and Cellular Respiration
- Kinetics: Rate of Reactions
- Titration: Acid-Base Neutralization
- Redox: Electrolysis within a Battery

### Physics+C Units

- Kinematics I: Car on a Ramp
- Kinematics II: Motion of a Ball
- Simple Harmonic Motion: Mass on a Spring
- Mechanical Waves: Sound through Different Media
- Electricity: Series Circuits
- Nuclear Physics: Rutherford's Gold Foil Experiment



Visit [go.edc.org/SciencePlusCInterest](http://go.edc.org/SciencePlusCInterest) or scan the QR code for more information about the Summer Institute

