

TEACH COMPLETE NGSS LESSONS!

Science World's articles and skills sheets combine to give you comprehensive Next Generation Science Standards (NGSS) lesson plans.

THE THREE DIMENSIONS OF NGSS

- 1 Science and Engineering Practices: Things that scientists and engineers do to make discoveries and solve problems
- 2 Crosscutting Concepts: Concepts that span all scientific disciplines, including biology, chemistry, earth science, physics, and engineering
- 3 Core Ideas: Fundamental scientific concepts

STANDARDS

NGSS:
Practice: Asking Questions and Defining Problems

Crosscutting Concept:
 Structure and Function

Core Idea: ETS1.A:
 Defining and Delimiting an Engineering Problem

COMMON CORE:
Writing Standards: 2. Write informative/explanatory texts to examine and convey complex ideas and information clearly.

TEKS:

8.6B, P.4C,



ARTICLES	NEXT GENERATION SCIENCE STANDARDS LESSON	READING AND WRITING STANDARDS	ONLINE MATERIALS
HANDS-FREE RIDE p. 8 Lexile 1070	PRACTICE: Asking Questions and Defining Problems CROSSCUTTING CONCEPT: Structure and Function CORE IDEA: ETS1.A: Defining and Delimiting an Engineering Problem	WRITING STANDARDS: 2. Write informative/explanatory texts to examine and convey complex ideas and information clearly.	→ Autonomous-vehicle video → Engineering activity → Graphing activity → Analyzing-data activity → Analyzing-models activity
THE SCIENCE OF S'MORES p. 12 Lexile 940	PRACTICE: Constructing Explanations and Designing Solutions CROSSCUTTING CONCEPT: Stability and Change CORE IDEA: PS1.B: Chemical Reactions	LITERACY IN SCIENCE: 9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.	→ S'mores video → Engineering activity → Communicating-ideas activity → Hands-on activity → Analyzing-data activity
EXTREME SCHOOL COMMUTES p. 14 Lexile 1060	PRACTICE: Planning and Carrying Out Investigations CROSSCUTTING CONCEPT: Stability and Change CORE IDEA: ESS2.A: Earth Materials and Systems	LITERACY IN SCIENCE: 9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.	→ Geography video → Hands-on activity → Analyzing-data activity → Math activity → Paired-text activity
MONKEY TROUBLE p. 20 Lexile 1020	PRACTICE: Constructing Explanations and Designing Solutions CROSSCUTTING CONCEPT: Cause and Effect: Mechanism and Prediction CORE IDEA: LS2.C: Ecosystem Dynamics, Functioning, and Resilience	READING INFORMATIONAL TEXT: 8. Delineate and evaluate the argument and specific claims in a text.	→ Human-animal conflicts video → Designing-solutions activity → Analyzing-models activity → Map activity → Paired-text activity



TEACHER TO TEACHER: Tips for using *Science World* in the classroom

Kathy Casteel, a teacher at C.W. Stanford Middle School, in Hillsborough, North Carolina, says: The Cool Jobs articles (found on p. 18 of this issue) are a great way for students

to explore science careers. I use the articles as a starting point for a science "job fair" project. Students create a tri-fold brochure using information from the articles and their own research. I print out

the completed brochures and set them out on a display stand, then students spend a class period perusing each other's brochures and learning more about a variety of science careers open to them.