Teach Challenging Science Concepts through Inquiry

Engage Students' in Grades 6 to 8 in Critical Thinking, Collaboration, and Research

"...excellent curriculum support... **Recommended.**"



Pathways: Science uses a consistent, easy-to-implement inquiry approach to help students understand difficult but essential earth, life, and physical science concepts. Lessons immerse students in thinking like scientists by making predictions, collecting evidence from a wide variety of sources-curated videos, images, text, graphs, and interactives-drawing conclusions, and writing evidence-based arguments. Each standards-correlated lesson is accompanied by a complete set of teacher resources, including simple methods for assessing student progress. Perfect for STEM!

SUBJECTS	STANDARDS-CORRELATED LESSON EXAMPLES
Earth Systems	The Earth's structure, the ocean, weather, and related phenomena.
Energy	Simple machines, electricity, types of energy, magnets, heat and temperature, and conservation.
Force and Motion	Velocity and acceleration, effects of gravity, the forces of action and reaction, and buoyancy.
Genetics and Evolution	Genes, DNA, and chromosomes, inheritance of traits, plant and animal diversity, mutations.
Light and Sound	Color, how light travels, radiation, reflection and refraction, the nature of sound.
Living Systems	Cells, body system interactions, respiration, photosynthesis, plant stems, plant mass
Matter	Mass, density, properties and nature of matter, solids, liquids, and gases, solutions
The Environment	Ecosystems, energy resources, food chains and food webs, global warming, predators and prey
The Nature of Science	Laws and theories in science, scientific models, theories and hypotheses in science
The Universe	Earth's seasons, solar and lunar eclipses, stars, the moon and its phases

The Predict—Investigate—Conclude Process Builds Key Science Knowledge!



Predict

All solutions are mixtures, but not all mixtures are solutions! Look at the mixtures shown below. Then classify each substance by placing it in the correct category Solution Not a Solution Using ideas from the activity you just completed, state one characteristic of a **solution**. Based on what I just did, I think . rass is a solid solution made of two othe solids: copper and zinc. The metals form an even mixture when they are heated to a very high temperature

Conclude

What happens to a substance when it dissolves in a liquid?

Students make predictions about each lesson's main concept to uncover their prior knowledge. They are asked to critically analyze their thinking around challenging topics in multiple ways, helping to bring any misconceptions to the surface.

Students dig for evidence from multiple sources to support or contradict their predictions. As they collect and evaluate evidence, students build research and critical thinking skills essential to success in Science and English/Language Arts.

throughout the water and cannot be separated from the water afterward.

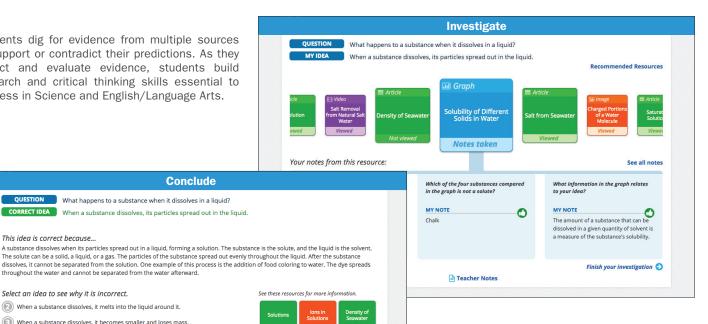
(When a substance dissolves in liquid, it changes into a different substance

When a substance dissolves, it melts into the liquid around it. When a substance dissolves, it becomes smaller and loses mass.

OUESTION

This idea is correct because ..

Select an idea to see why it is incorrect.



Ideal for informal assessment, "Conclude" gives students an opportunity to demonstrate how they have revised their understanding of the topic.



"Pathways lets me differentiate because it's meant for everyone. Every single topic is a match with what we are teaching."

-Colleen Tombs, 8th Grade Science Teacher, Rahway (NJ) Middle School

(800) 621-3900 | contact@eb.com | britannicalearn.com/science

©2017 Encyclopædia Britannica, Inc. Britannica, Encyclopædia Britannica, Britannica Digital Learning, Pathways: Science, and the Thistle logo are trademarks of Encyclopædia Britannica, Inc. All rights reserved.