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Participating School Districts and Private Schools

Bickleton	East Valley
Cle Elum-Roslyn	
Easton	Ellensburg
Granger	Grandview
Highland	Mabton
Mt. Adams	Prosser
Selah	Sunnyside
Toppenish	Union Gap
Wahluke	Wapato
West Valley	Yakima
Zillah	
St. Joseph Marquette	
St. Paul Cathedral School	

*Serving.
 Delivering.
 Inspiring.*

The Science Education Cooperative at ESD 105 provides a hands-on, inquiry-centered science education program for our region’s kindergarten through 6th grade students. This collaborative and cost effective program helps students learn science by *doing* science, not just by reading about it. The co-op combines curricula aligned with Washington state and National Science Education standards with hands-on science kits containing all the necessary equipment and materials for their classroom. As a result, teachers are able to lead their students in acquiring the type of knowledge that will prepare them for their future of living, learning, and working in a society increasingly shaped by science and the technology-driven economy of the 21st century.



Why teach science this way?

Inquiry-centered science is based on research that confirms children learn best by doing. Students in this project are challenged to study science the same way scientists do: by reviewing their knowledge, making and testing predictions, observing, recording and sharing test results. Science literacy means more than understanding scientific concepts – it also means having critical thinking skills needed to evaluate information and make important decisions in both public and private life.

How the co-op benefits teachers



A key component of the Science Education Co-Op is to provide teachers initial and ongoing **professional development in 19 different physical science, earth science and life science modules**. The co-op’s cost-effective system provides approximately 54 hours of professional development designed to deepen teachers’ science content understanding to help them effectively lead inquiry-centered learning.

- The Science Education Co-op benefits participating schools’ financial resources and time by sharing classroom resources and teachers’ training needs.

- Teachers use curricula that has been adopted by districts region-wide and is supported by the National Science Foundation.
- Master trainers for each grade level unit are being developed to sustain future training needs.
- The knowledge acquired through these trainings can be applied to other core areas such as reading and writing.



Did you know?

Students learning through inquiry-based science show **increased achievement** in reading, writing, and math!



Watch us grow into middle schools!

Beginning in 2007-2008, ESD 105 offers initial use training for **middle school inquiry-based instructional materials**. We have formed a **Secondary Science Leadership Cadre** from teachers and administrators who attended the National Academy for Curriculum Leadership. This group is helping design a professional development plan for secondary science for the region.

Training is offered in:

- Energy Machines and Motion
- Catastrophic Events
- Organisms: Micro to Macro
- Human Body Systems
- Properties of Matter
- Earth in Space

The Science Kits

Each science kit supports a classroom of **30 students** and contains all the materials and equipment for a particular module. Each classroom/grade level uses three kits per year in a sequenced, coordinated rotation. Materials such as butterflies, soil, batteries, vinegar, and baking soda are used in 19 different science kits to provide students hands-on experiences at science investigations. Students ask questions, make and test predictions, then record, reflect on, and share their findings.



How the science kit program works:

- We pool together kits owned by districts and now share them region-wide.
- We jointly purchase new science kits to be used by all members, and purchase disposable materials in bulk.
- The Science Resource Center at Yakima’s Davis High School stores and distributes the co-op’s kits and materials. Streamlined ordering, shipping, and inventory management from this centralized facility means school districts don’t have to perform this work on their own.
- We provide expert staff to plan trainings and offer program support for all members so districts don’t need to hire their own coordinators.

**Science Education Co-op
K-6 Inquiry-based Science Curriculum**

Grade Level	Physical Science	Earth Science/ Technology	Life Science
K			LIFE CYCLE OF BUTTERFLIES
1st	SOLIDS & LIQUIDS	WEATHER	COMPARING & MEASURING
2nd	BALANCING & WEIGHING	SOILS	ORGANISMS
3rd	CHEMICAL TESTS	ROCKS & MINERALS	PLANT GROWTH & DEVELOPMENT
4th	ELECTRIC CIRCUITS	LAND & WATER	MICROWORLDS
5th	FOOD CHEMISTRY	MOTION & DESIGN	ECOSYSTEMS
6th	FLOATING & SINKING	MAGNETS & MOTORS	EXPERIMENTS WITH PLANTS