



Henry County
Schools

Ahead of the learning curve.

Science SOL Environmental Education Science Fair





Science SOL

- www.pen.k12.va.us
- Started testing 1998
- Accountability is a good thing!

Science SOL continued...

- Science SOL Strands (K-6)
 - Scientific Investigation, Reasoning, and Logic
 - Force, Motion, and Energy
 - Matter
 - Life Processes
 - Living Systems
 - Interrelationships in Earth/Space Systems and Cycles
 - Earth Patterns, Cycles, and Change
 - Resources
- Science SOL strands for 7th grade Life Science through high school Physics are more specific for respective subject matter.
- All grade levels include Scientific Investigation!
Approximately 20% of SOL test questions are from this strand!

Effective SOL Coverage

- Teachers are encouraged to go beyond the SOL!
- Rather than covering SOL in a sequential or fragmented manner, covering many SOL in “one shot” under a conceptual umbrella is more effective!
- Covering SOL in an interdisciplinary manner is also more effective!
- Henry County examples – Trout in the Classroom (TIC), Virginia Save Our Streams (VA SOS), Science Fairs

Trout in the Classroom (TIC)



Ahead of the learning curve.

- There are currently trout tanks in more than 20 classrooms in Henry County.
- Trout eggs come from the hatchery in October of each school year.
- Students monitor and log environmental factors of tanks weekly.
- Ongoing classroom instruction includes life cycle of trout, ecological relationships, and environmental stewardship.
- Students write reflections about trout experiences and many create trout-related artwork.
- Trout fry are released in May of each school year.







Virginia Save Our Streams (VA SOS)



Meaningful Watershed
Educational Experience (MWEE)



Meaningful Watershed Educational Experience (MWEE)

- *Every student will experience a meaningful* bay or stream outdoor experience before graduating from high school.*
- **"Meaningful" defined – Experiences:*
 - *are investigative or project-oriented*
 - *are richly structured and based on high-quality instructional design*
 - *are an integral part of the instructional program*
 - *are part of a sustained activity*
 - *consider the watershed as a system*
 - *involve external sharing and communication*
 - *are enhanced by natural resources personnel*
 - *are for all students*



Biological Monitoring Results (Math Connection)

LPM VA SOS

Leatherwood Creek

Muddy Bottom Method

Quality Reading – 24

Acceptable

FCM VA SOS

Reed Creek

Rocky Bottom Method

Quality Reading – 8

Borderline

Unacceptable



Science Fairs

- Excellent way to effectively cover Scientific Investigation!
- Henry County – elementary
- Fewer “volcanoes” and more manipulation of variables
- Students and judges discuss projects
- Move toward district-wide, regional, state, national, international



Thank You!

- Dr. David Jones
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- Virginia Department of Game and Inland Fisheries – Ann Regn, Kris Jarvis
- Virginia Department of Education – Paula Klonowski
- Countless others who support our efforts!



Contact Information

Donna S. Hicks
Secondary Curriculum Specialist
Henry County Schools
P.O. Box 8958
Collinsville, VA 24078
Phone – 276-634-4767
Fax – 276-634-4719
dhicks@henry.k12.va.us

