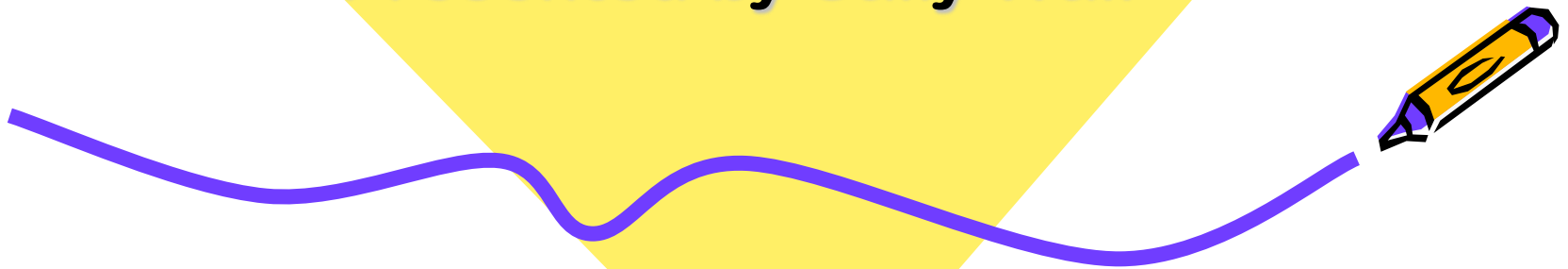




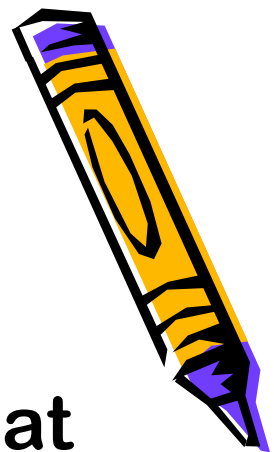
Environmental Education in Schools

Presented by Sally Wall



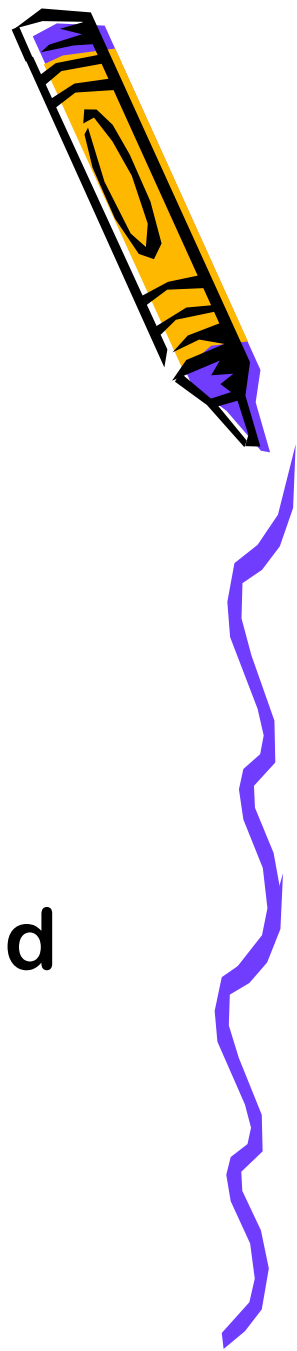
What are TEKS?

- They are one of the many acronyms that education has.
- It stands for Texas Essential Knowledge and Skills.
- This tells each subject area what they should be teaching and what they will be tested over.
- They should be based on National Standards.



What's Going on in the Schools

- New TEKS in Math, Science and Language Arts have been put in place.
- Social Studies just approved and will start next year.
- You can go to the TEA website and get copies of these.
<http://www.tea.state.tx.us/>



Subjects that EE hits.

- We all know that true EE is multidisciplinary. Unfortunately that knowledge has not made it to most school administrators.
- In elementary- science and then tie in with any other main subject such as language arts-writing.





- **Journaling in any grade/subject is always good.**
- **Middle school will be science. Seventh grade has Texas History so maybe there.**
- **High school-hard to get field trips. Generally will be through science-possibly in the upper level science capstone science classes.**



No Child Left Behind for Teachers



- This changed the face of funding and testing in the state.
- Teacher requirements-they should be considered “highly qualified” in their field of study.



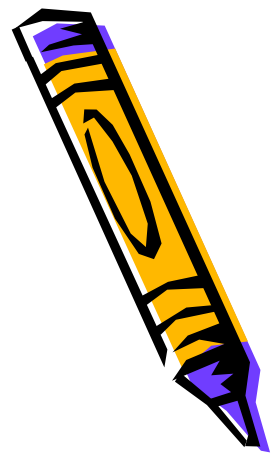


- This means professional development for teachers now must be content or pedagogy.
- Why reinvent the wheel? Use good EE programs that are recognized by educators such as Project Learning Tree and Project WILD. You can do these activities in the field with students.



High Stakes Testing

- The TAKS (Texas Assessment of Knowledge and Skills) will go away after this year.
- This test will be replaced by the STAAR (State of Texas Assessment of Academic Readiness)
- For elementary the science test will be given in 5th grade over 3rd-5th TEKS.



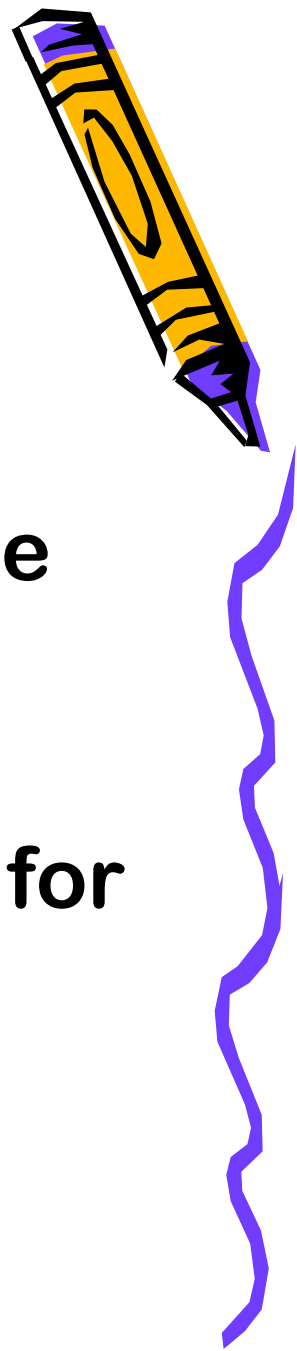


- In middle school the test will be given in 8th grade over 6-8th grade TEKS.
- In high school each course will have an end of course exam.



What does this mean to you?

- Any offerings for teachers in professional development must be content or pedagogy.
- You must get a number from the State Board of Education (SBEC) for the professional development to count for the teacher.



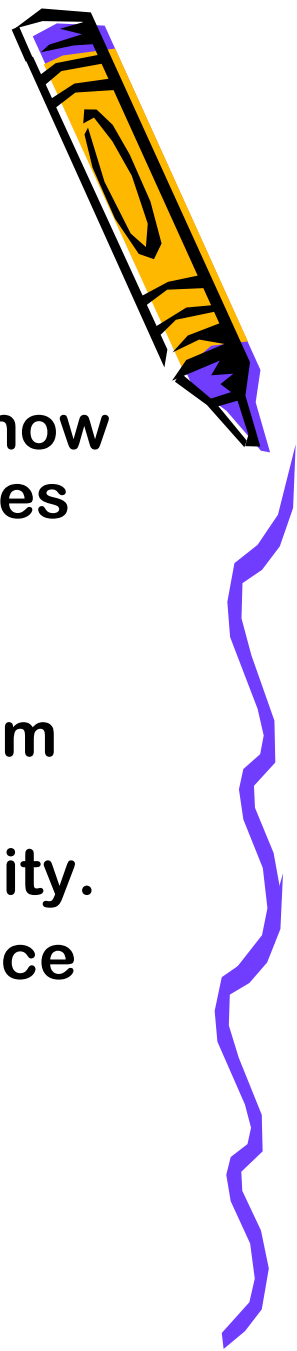
SBEC Application



- Look for CPE (Continuing Professional Education) form and fill it out if you do not already have it.
- You can Google it-easier to get to.
- If you can offer GT credit that is even better. Generally you will have to go to TAGT (Texas Association of the Gifted and Talented) and fill out forms to get recognized and be able to give this credit.



No Child Left Behind for Students



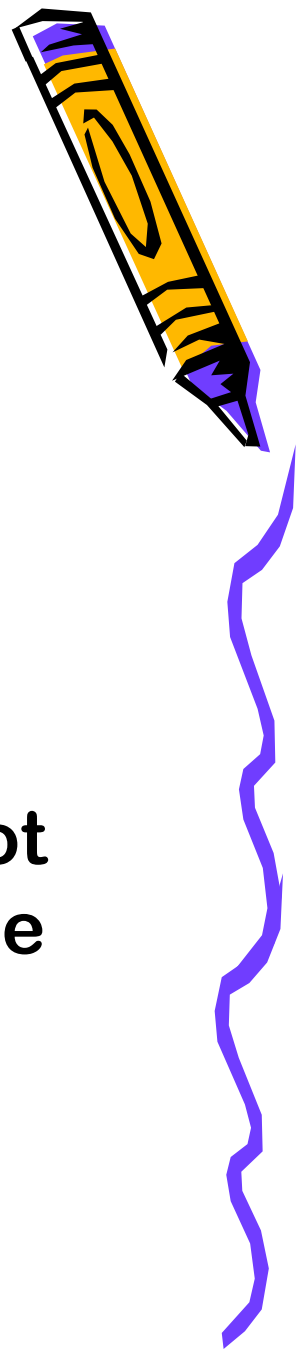
- You must connect it to the TEKS, TAKS and now STAARS. The more TEKS and TAKS objectives you can meet the better.
- Target at risk groups.
- If you do not meet the TEKS and your program will not help test scores then highly unlikely teachers can bring their students to the facility.
- Money is tight-you can give them free entrance or lessons but what about buses and substitutes?



Title schools are deemed so by demographics (low socio-eco). Many places get money for these schools to go on a field trip.

Many schools have low students that would benefit from a field trip experience but they are not a Title school.

Many middle schools are low but are not a Title school-it is harder to become one at this level.



Building on Content Knowledge



- Many low socio-economic students do not have nature experiences-if you can give students this hands-on experience then it will help the teachers justify the field trip.
- Socio-economic status is determined by the number of students receiving free and reduced lunches.



Other Problems-If you can solve they will come.



- I have to take all 300 students in my grade level from my school if I take a field trip. Can you handle this?
- It is May-TAKS (soon to be STAAR) is over, the birds are singing and I have the first two weeks of the month, along with the rest of the schools in the state to take a field trip. Can you handle this?

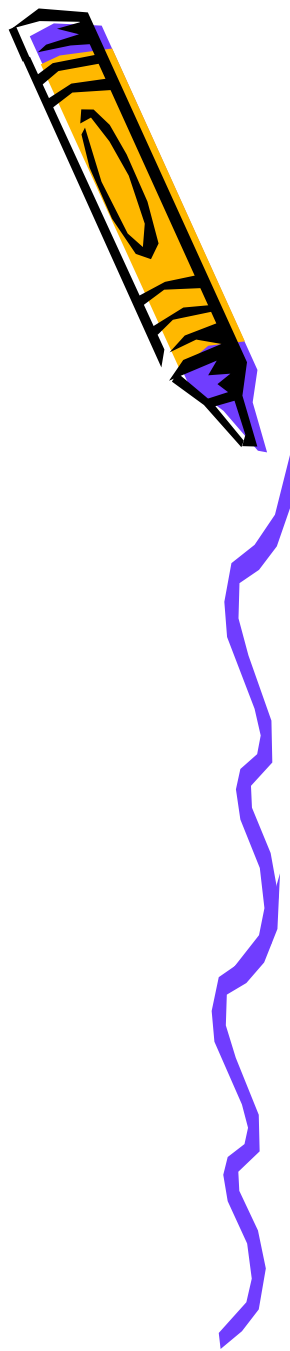




- I can't get enough parents to go-can you furnish chaperones?
- I don't have any funds for field trips, do you? Or can you reduce the cost of the field trip?



**What
Else?**





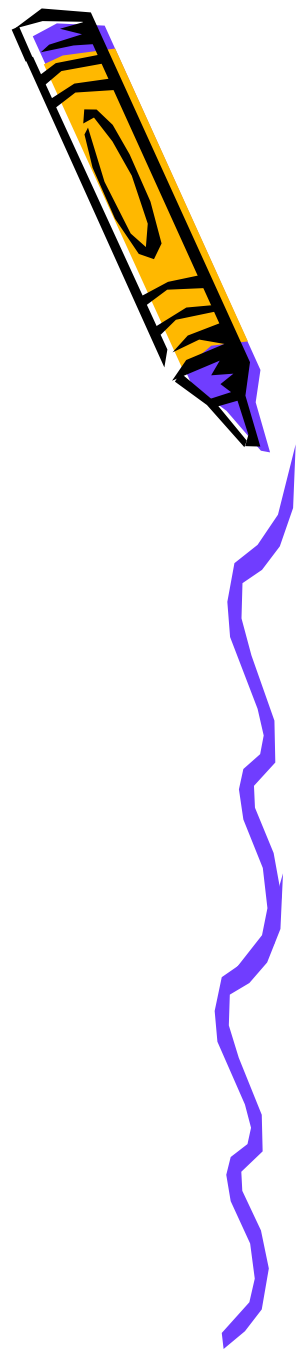
**EE Curriculum
modified from**

Brenda G. Weiser, Ed. D.
University of Houston-Clear Lake
School of Education



Key Components to Consider

- Target audience
- Content/subject you are going to address
- Texas Essential Knowledge and Skills (TEKS) to be addressed
- Instructional Strategies



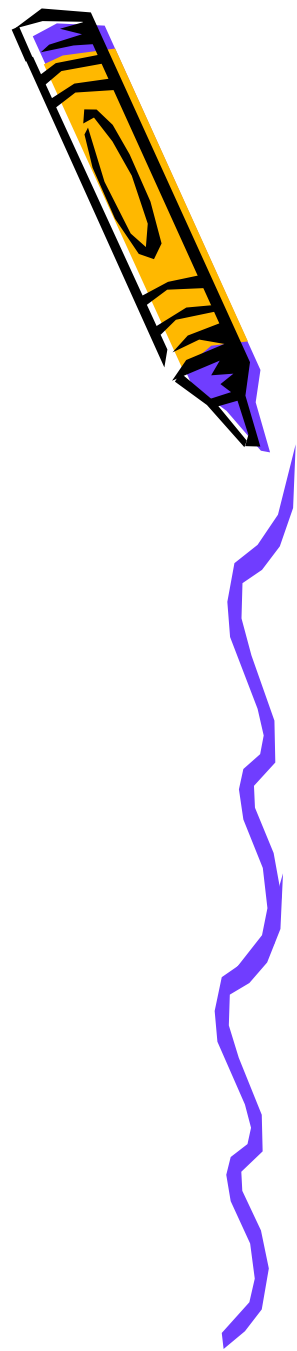
More Key Points

- **Management**
- **Assessment**
- **Learning styles and characteristics**
- **Materials needed**



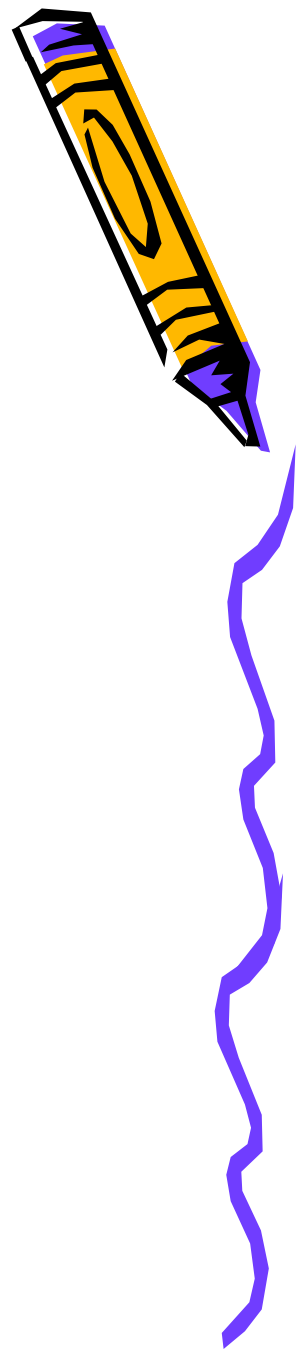
Other Considerations

- **Differentiated Instruction**
 - Language-minority students
 - Gifted and talented student
 - Multicultural factors
 - Students with special needs
 - Strategies for adapting activities/lessons for students
- **Gender bias**



Learner Characteristics

- Cultural considerations
- Special learning needs
- Learning styles
 - Visual
 - Auditory
 - Tactile/Kinesthetic
- Cognitive, social, physical, and affective developmental stages

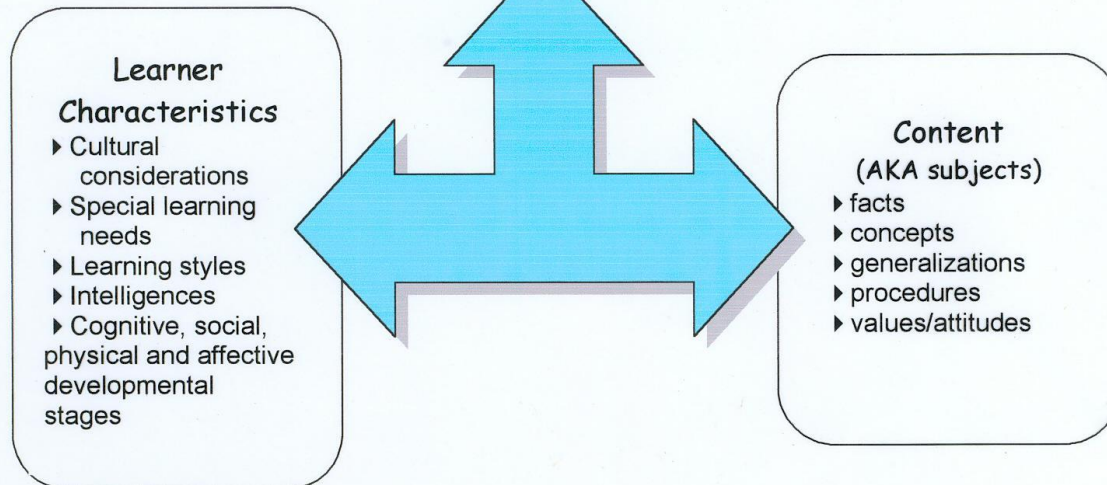
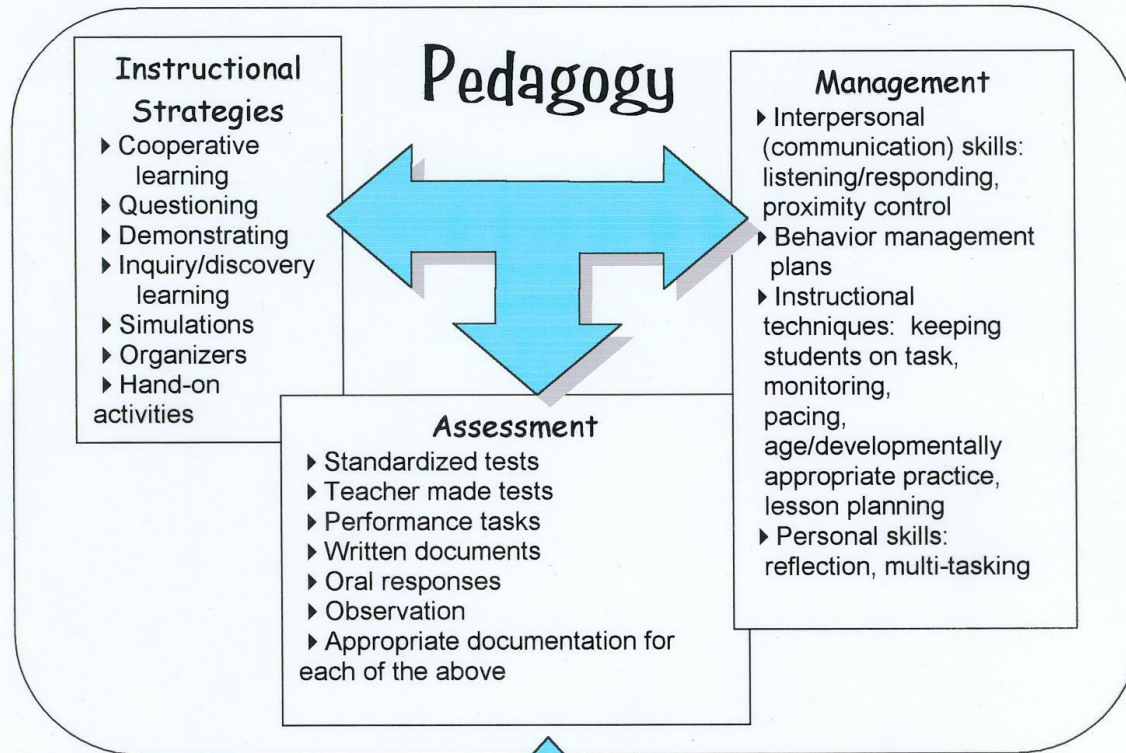
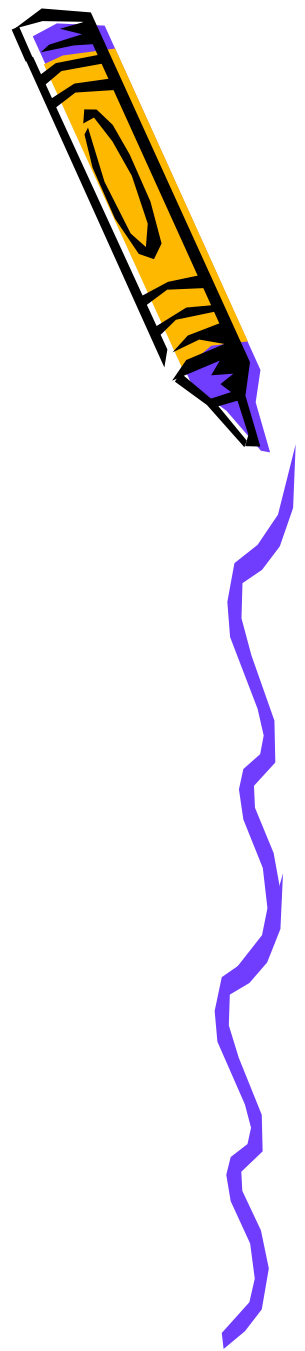


Content (AKA Subjects)

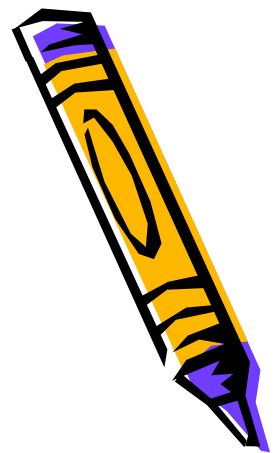
- Make sure your facts are accurate
- Concepts you are teaching – tie into the appropriate grade level and TEKS
- Work with the teacher before you go out to the school or develop a program, curriculum.



Some things every pre-service teacher should know



EE Education



- What standards are you using?
- Science lessons are based on National Science Standards
- There are EE standards and teachers will start looking for proof of meeting these. If you say you meet these standards then it make your program/facility that much more marketable.



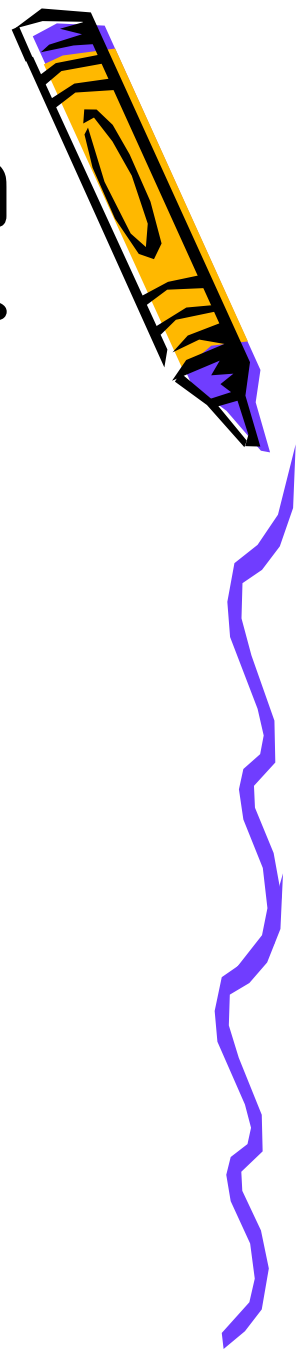
National Project for Excellence in Environmental Education Key Documents

- **Environmental Education Materials:
Guidelines for Excellence**
 - set of recommendations for developing and selecting environmental education materials
- **Excellence in Environmental Education -
Guidelines for Learning (K-12)**
 - guidance for fostering and gauging environmental literacy in kindergarten through twelfth grade



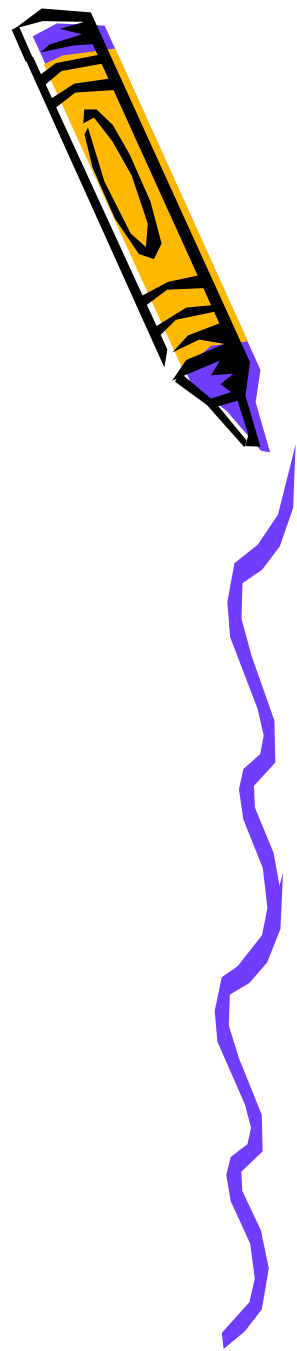
Environmental Education Materials: Guidelines for Excellence

How do I use these
guidelines?

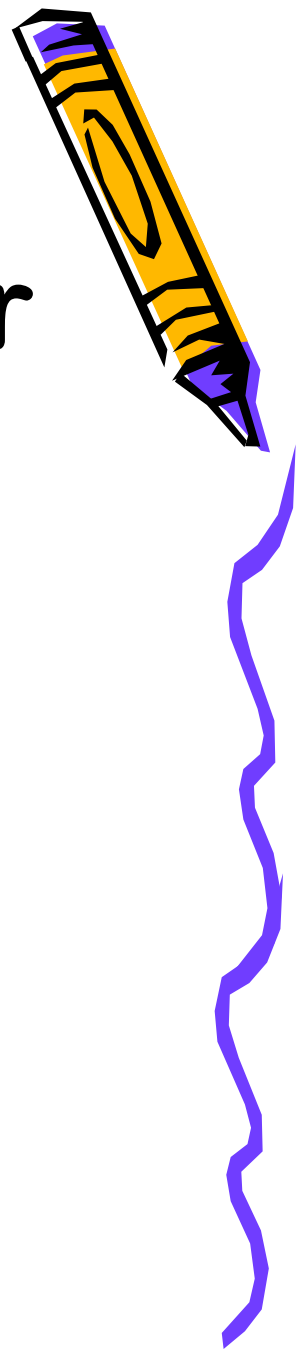


Sponsored By:

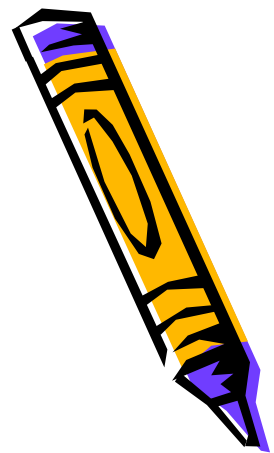
- [NAAEE](#)
- U.S. EPA
- Northern Illinois University
- EETAP
- National Fish and Wildlife Foundation
- NEETF
- U.S. Fish and Wildlife Service



**Setting a standard for
high-quality
environmental
education in schools
and other learning
settings.**

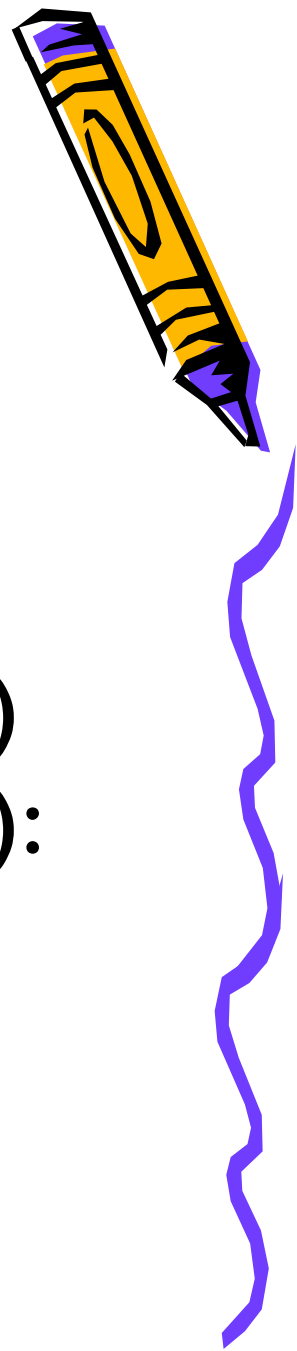


Promoting excellence in environmental education



NPEEE Five Primary Products

- **Materials Guidelines**
- **Guidelines for Learning (PreK-12)**
- **Guidelines for Learning (PreK-12):
Executive Summary & Self-
Assessment Tool**



5 Products Cont.

- **Guidelines for the Preparation and Professional Development of Environmental Educators**
- **Nonformal Environmental Education Programs**
- **Early Childhood Guidelines**

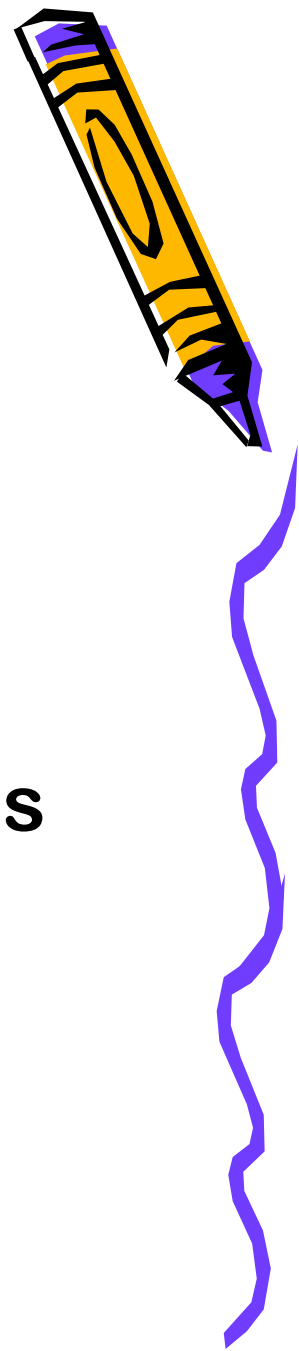


NPEEE Additional Resources

- **Materials Workbook: Bridging Theory & Practice**
- **The Environmental Education Collection – A Review of Resources for Educators (Volumes 1-3)**
- **The Biodiversity Collection – A Review of Resources for Educators (Published by World Wildlife Fund)**



Essential Underpinnings of Environmental Education



- **Six Critical Criteria**
 - Systems
 - Interdependence
 - The importance of where one lives
 - Integration and infusion
 - Roots in the real world
 - Lifelong learning

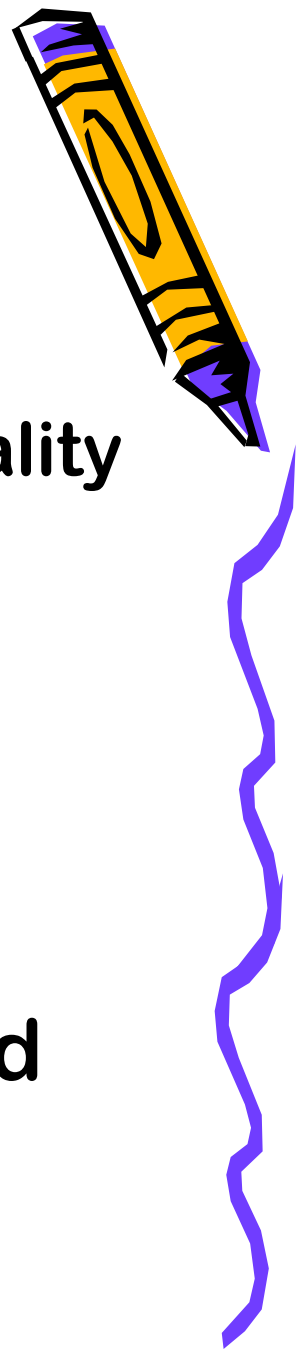


Environmental Education

Materials: Guidelines for Excellence



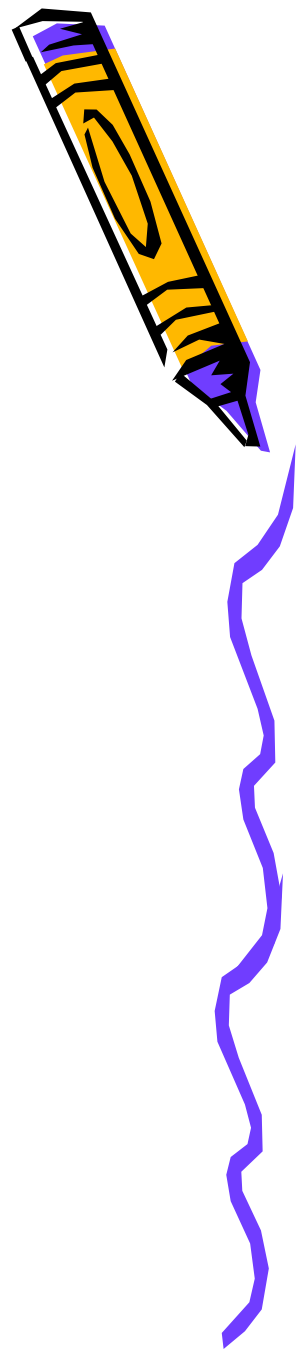
Materials: Guidelines for Excellence



- **A Resource That Provides:**
 - Recommendations for selecting quality EE materials
 - Tools for evaluating a wide array of materials
 - Guidance for developing new EE materials
- **Developed through a broad-based review and comment process**



Materials: Guidelines for Excellence

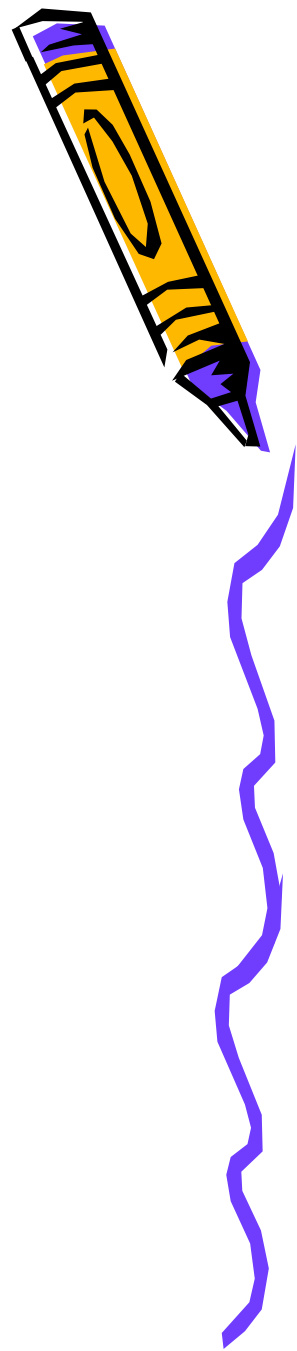


Six Key Characteristics

- 1) Fairness and accuracy
- 2) Depth
- 3) Emphasis on Skills Building
- 4) Action Orientation
- 5) Instructional Soundness
- 6) Usability

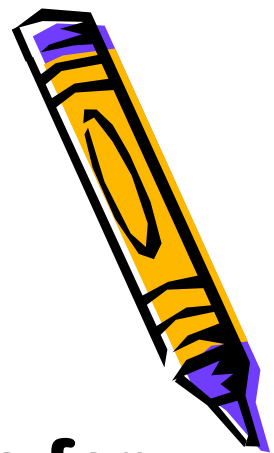


Excellence in Environmental Education: Guidelines for Learning (PreK-12)

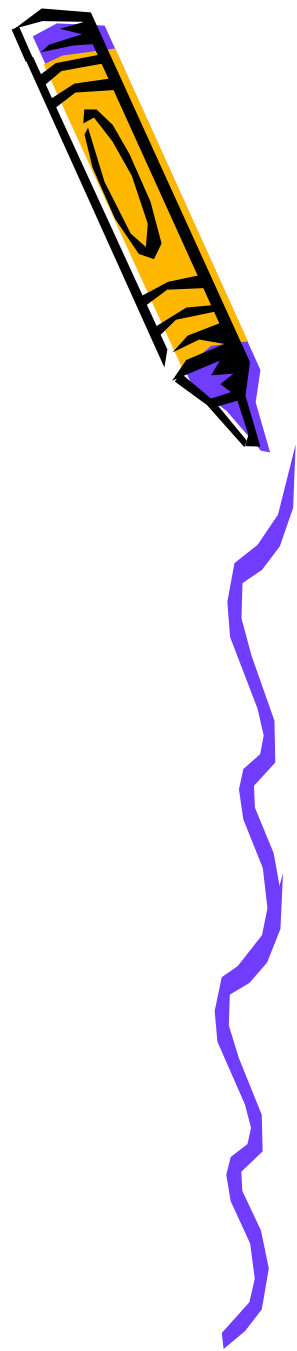


Guidelines for Learning (PreK-12)

- A Resource That Provides:
 - A common, voluntary set of guidelines for EE
 - Expectations for achievement in 4th, 8th and 12th grades
 - A framework for EE programs and curricula
 - Demonstrations on how EE can be used to meet traditional standards
 - A definition of the aims of EE

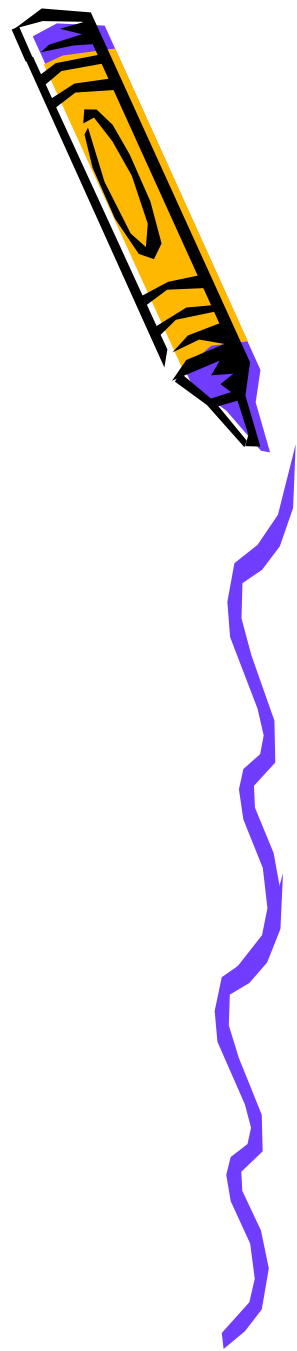


Excellence in Environmental Education: Guidelines for Learning (PreK-12) Executive Summary & Self- Assessment Tool



Executive Summary & Self-Assessment Tool

- Provides an easy reference to Excellence in Environmental Education: Guidelines for Learning (PreK-12) in the same four strand structure
- Developed through a broad-based review and comment process

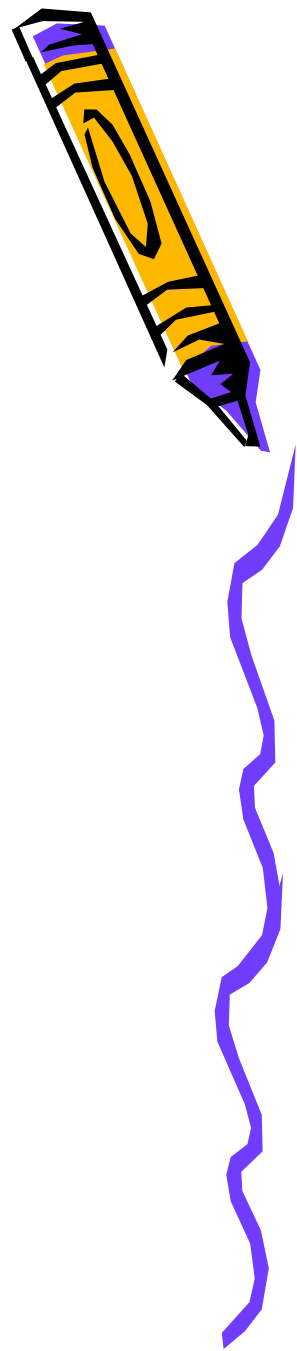


Guidelines for the Preparation and Professional Development of Environmental Educators



Guidelines for Preparation and Professional Development

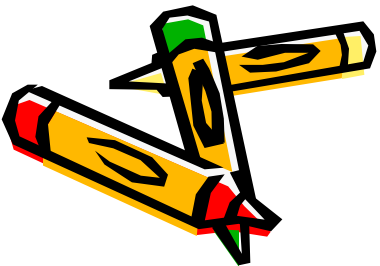
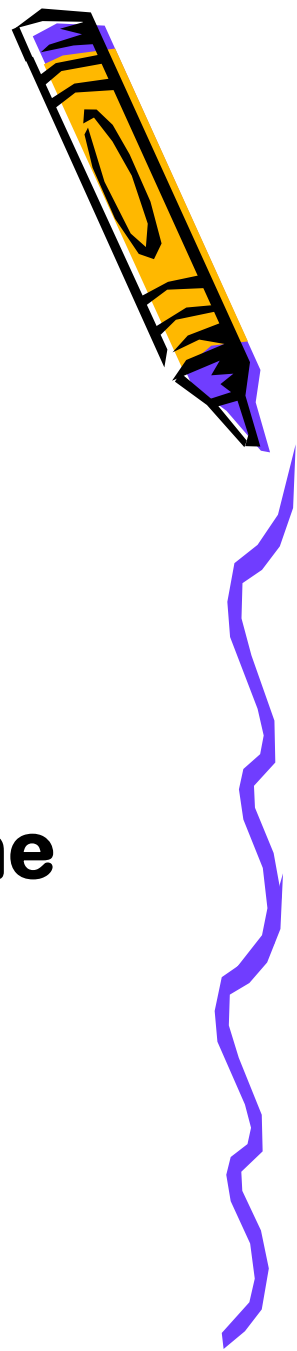
- A resource that provides a set of recommendations about the basic knowledge and abilities educators need to provide high-quality EE
- Developed through a broad-based review and comment process



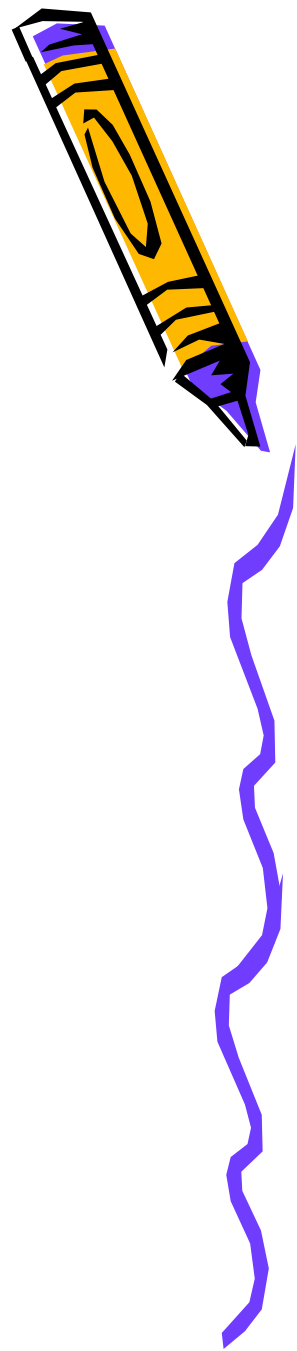
Guidelines for Preparation and Professional Development

Six Themes

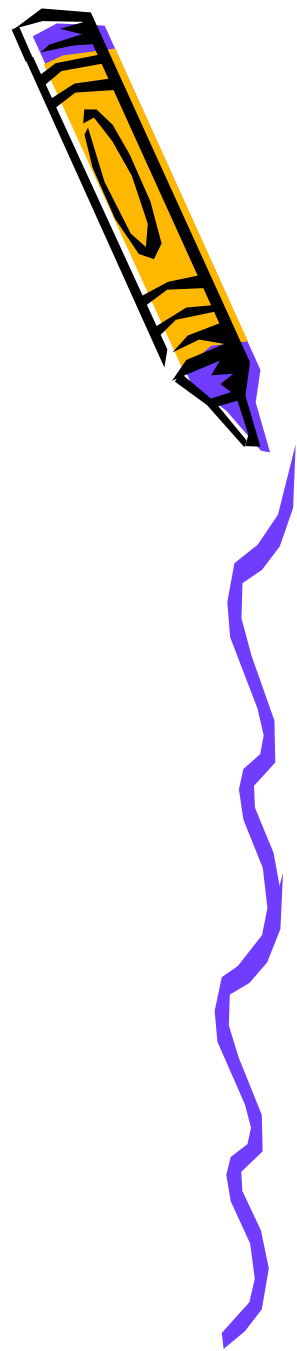
- 1) **Environmental Literacy**
- 2) **Foundations of Environmental Education**
- 3) **Professional Responsibilities of the Environmental Educator**



- 4) Planning and Implementing Environmental Education Programs**
- 5) Fostering Learning**
- 6) Assessment and Evaluation**



Nonformal Environmental Education Programs: Guidelines for Excellence



Nonformal Environmental Education Programs

- **A Resource That Provides:**
 - **Recommendations for developing and administering high quality nonformal EE programs**

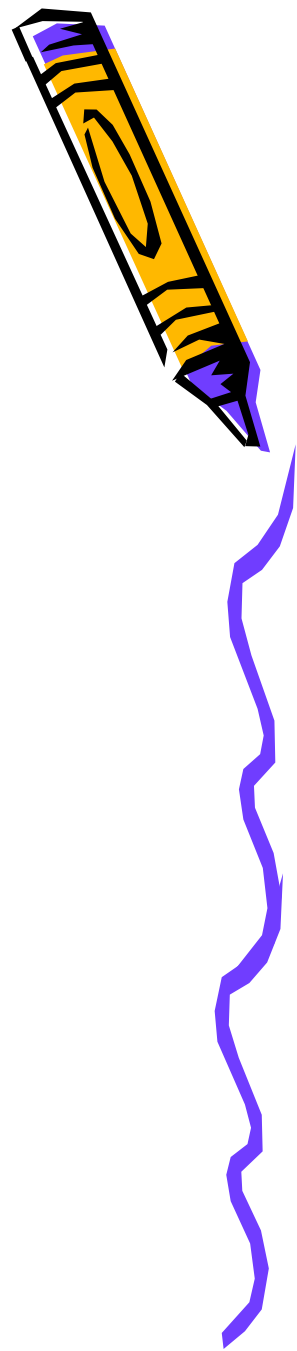




- A tool that can be used to ensure a firm foundation for new programs or to trigger improvements in existing ones**
- Developed through a broad-based review and comment process**



Nonformal Environmental Education Programs

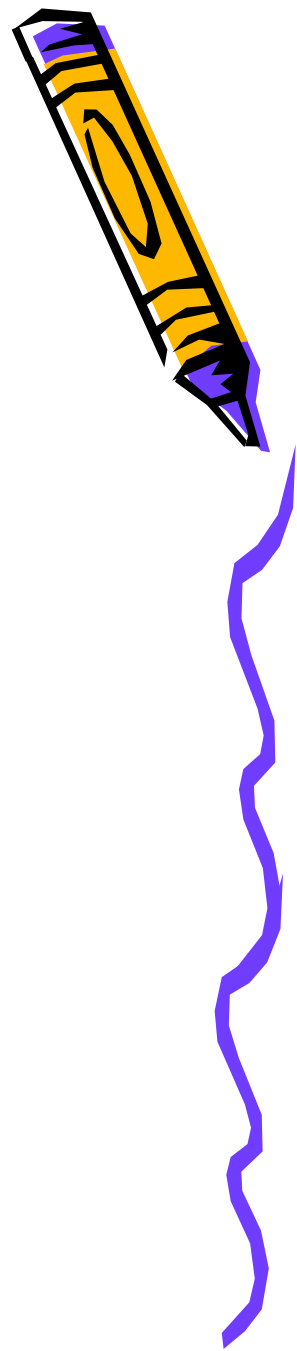


Six Key Characteristics

- 1) Needs Assessment**
- 2) Organizational Needs and Capacities**
- 3) Program Scope and Structure**



- 4) Program Delivery Resources**
- 5) Program Quality and Appropriateness**
- 6) Evaluation**







**For more information on the
Guidelines or to download your own
copy, go to NAAEE.org, Project for
Excellence in EE**

