Proposed Eckerd Curriculum & MOSI Partnership

Partner to Create a Rigorous & Relevant Companion
Product for the E3 Curriculum

Integrating Earth Science, Life Science, Physical Science, and the Social Sciences with Math, Technology and 21st Century Design to explore career fields in real-world contexts

Aligned with the E3 Curriculum



1	2
3	4

The E3 Curriculum is organized into four broad themes or clusters of related ideas. Academic standards are selected from across academic subject areas to support all four themes. All students are required to complete a Career Success Portfolio involving exploration and personal choice-making. Hands-on inquiry and applied learning scenarios are utilized.

Partnership Product Ideas ...

- Mobile Interactive Career Exhibit
- 4 theme-Related Teaching Trunks
- E3 CD ROM or Website
- Live e-Conferencing with Experts in the Field
- -- Any partnership project for consideration should include hands-on materials, video demonstrations and/or print collateral with professional development to enhance the teaching of math and science.
- -- Local career contacts should be provided for EYA states of service in addition to FL

Broad Goals

For Students: To increase knowledge of science math and technology career fields, and to better prepare youth for the integration of higher order skills in the workplace and in college environments.

For Teachers: To increase math and science knowledge of teachers and to model math integration as key to precise scientific inquiry (Lab Notebooks/Project Management)

For Partners: To model exemplary practice and enhance the hands-on applications of math and science understandings in real-world problemsolving and product development.

Salient Features

- Concrete Connections to Current & Future Careers
- Focused on the Integration of Higher Level Math: Algebras, Geometry & Trigonometry
- Embeds Real-World Digital Literacy Skills in Career-Related Problem-Solving Tasks
- Demonstrate a Structured System of Inquiry, and Teaches Transferable Project Management Skills
- Aligns to National Math, Science and Technology Standards
- Partnership will capitalize on EYA's experiential and applied learning core
- Professional Development will include a Distance Training feature for Regions







Partnership Opportunities

MOSI/IMAX- ASCT Membership



Association of Science Technology (ASCT) Partnerships

Participation <u>Guidelines and locations</u> for May1, 2009 through October 31, 2009 for over 250 networked science museums offering discounts or opportunities.



MOSI-ASCT Locations of Interest in support of

EYA's Regional Training Network & ED-TV Online

www.eckerd.org



EYA REGION I:

New England Consortia Region

- Boston Children's Museum & Waterfront Estuary Project
- Worcester <u>Ecotarium</u> Museum of Science & Nature
- Starhop Museum in Concord, NH

EYA REGION II:

Eastern North Carolina (Coastal Region), Western North Carolina (Mountain Region) Eastern TN, Smokey Mountain Area & North GA

 <u>Science Works of Winston-Salem</u> — Partnership Location Teacher Science GUIDE

EYA REGION III:

Florida Panhandle Southern GA

- Challenger Learning Center of Tallahassee
- The Mary Brogan Science Museum Tallahassee

Central and Southern Florida

Museum of Science and Industry PRIMARY Partnership



** IMAX Schedule:

ALL Locations Related E3 Curriculum Resources

Wild Ocean!

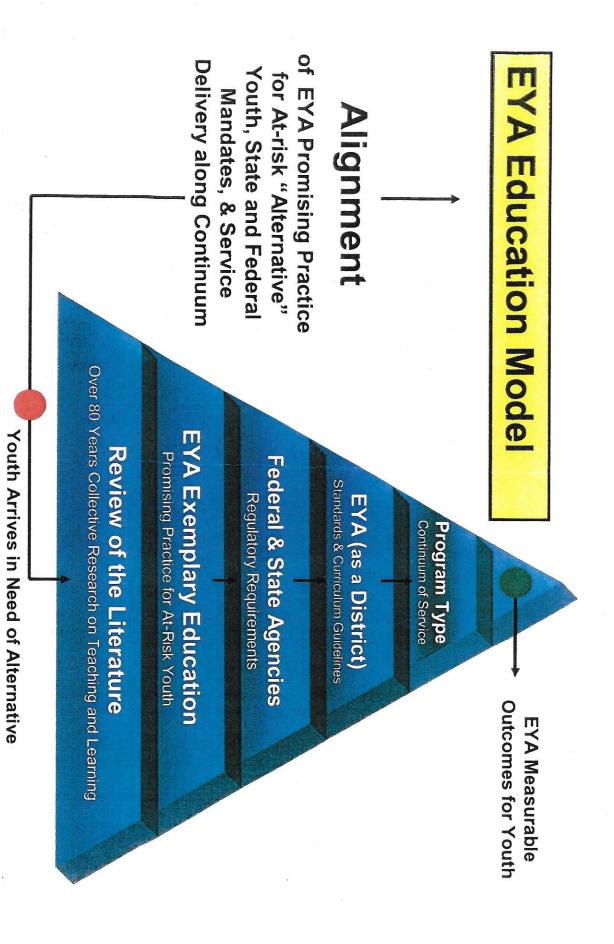
TEACHER GUIDE

• International Space Station

TEACHER GUIDE

Human Body

TEACHER GUIDE

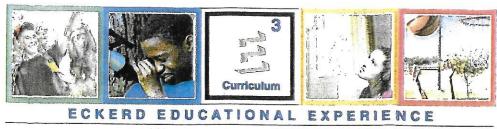


EYA Education Model

Exemplary Education
One Standard of Excellence for All

Principles of EYA's Quality Educational **Programming Guidelines**

- Excellence in Education for all Students
- **Broad Applications for all EYA Program Types**
- Specific to the "Alternative Student" Profile
- in Theory and Practice* Based on more than 80 years of Educational Research
- **Built on Promising Practices**
- and Related EYA Accreditation Standards Comply with FL, GA, TN Legislative Mandates,



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E3 Theoretical Assumptions

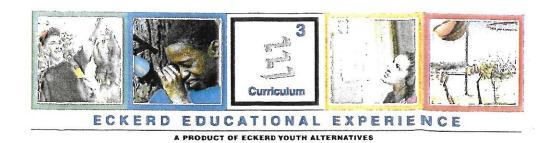
The E3 system is designed to help programs with the planning and delivery of integrated academic units to meet the needs of multi-age and mixed ability groups at risk of dropping out of school.

Prior to developing the E3 systems, a review of the literature identified a body of work spanning nearly eighty years and highlighting researchers and practitioners, such as Dewey, Glasser, Rogers, Kagen & Kagen, Schmuck & Schmuck, Lung and others, who have structured a firm foundation upon which to build our service delivery model.

We have grouped the review of these foundational theories and best-practice strategies into the following "4 C's of Implementation" that we will reference throughout the E3 training:

The Four C's

- Community Culture
- Customer Care
- Core Concepts
- CIA Cycles



E3 Culture & Community

- Community of Caring Relationships
- Climate extends an "Invitation to Learn"
- Safe and Supportive. Risk-taking
- Personal Integrity, Responsibility and Mutual Respect
- Visible Models of Positive Group Process
 Interactions: Healthy Problem-Solving
 "Tugging at Ideas... NOT people"
- Traditions, Routines, Rituals & Celebrations in Place for the Good of the Group
- Collegial and Collaborative Working Culture with time routinely scheduled for professional teaming & development

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E3 Customers Who is Dropping Out?

Risk Factors from School Experience

- Absent 20 or more times during the previous school year
- Retained in at least one grade
- Low grades (Cs and Ds or below)
- Disciplinary problems, disruptive behavior or violence
- · Has attended five or more schools during a lifetime

School-Caused Risk Factors

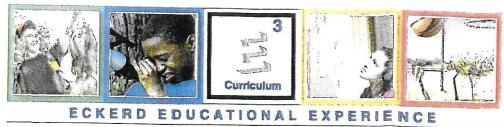
- Ineffective discipline system; Retention and/or suspensions to control
- Negative school climate
- Disregarding student learning styles; Passive instructional strategies
- Lack of relevant curriculum

Personal or Psychological Characteristics

- External locus of control (i.e., being in agreement with others' perceptions -- believed or actual -- of their individual ability, worth, or value)
- · At least one disability
- Poor peer support
- Depression or other emotional problems
- Substance Abuse

Adult and Family Responsibilities of Student & Family History

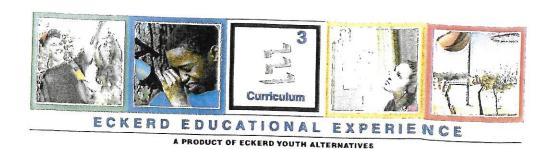
- Has a child
- Must work to help support the family
- Single parent home, permissive parents and poor parent-child relationship
- Family receives public assistance; Neither parent nor guardian is employed
- Primary language of the family is not English
- A sibling has dropped out of school; Parent(s) did not graduate from high school



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E3 System: Foundational Core Concepts

- Integrated Academic Studies
- Comprehensive Ongoing Assessment
- Student-Centered Hands-On Projects
- Social-Emotional Coaching & Models
- 21st Century Technology Integration
- Differentiation & Choice-Making
- Collaborative Teaming & Professional Development
- Visual, Oral/Aural, Dramatic, Kinesthetic, &
 Written Celebrations of Learning
- Civic Responsibility & Service
- Career-Readiness Skills & Exploration of Career Clusters



E3 CIA Cycles & Assessment-Driven Decisions

Curriculum

- Start by Unpacking the Standards
 - Know Your Group
 - Know the Course Descriptions & Requirements
 - Become Familiar with the Academic Themes & the E3 Four Square by Quarter

Assessment

- Select Ongoing Measures of Mastery (considering the above)
 - Know the E3 VODKI Learning Projects, Value of Portfolios, Peer and Self Evaluation & Conferencing
 - Know the limits of Criterion-Referenced Tests with Your Specific Group (pre-post, Chapter Quiz, Scantron sheets, etc.)
 - Get to the DEEPER Understandings: Inquiry, Higher-Order Questioning, Critical Thinking, Metacognition

Instruction

- Choose from "What Works" At-Risk Alternatives the above)
 - Know how to differentiate by content, by process, by product and by environment (dining hall education, mini-lessons at site, group learning games, lag-time activities, literacy centers, Art Studio, portable videos on iPod)
 - RIGOROUS Up front TEAM PLANNING
 - o "Build-In" Adaptations & Modifications, Multiple Intelligence, Learning Styles
 - Students take Responsibility: Choices, Choices
 - Real-World Career Connections and Portable Workplace Skills