



STEM AND POPULATION EDUCATION

ABOUT STEM EDUCATION:

STEM is the integration of courses, programs, or linked learning opportunities using an interdisciplinary approach through exploration, discovery and problem solving.

STEM Programs help students develop skills in:

- DATA ANALYSIS
- INTERDISCIPLINARY THINKING
- LITERACY AND READING COMPREHENSION
- TECHNICAL LITERACY
- INQUIRY
- PROBLEM SOLVING
- CAUSE AND EFFECT RELATIONSHIPS

POPULATION EDUCATION

A PROJECT OF POPULATION CONNECTION

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HOW DOES POPULATION EDUCATION FIT INTO A STEM CURRICULUM?

Science, Technology, Engineering, and Mathematics (STEM) education is a teaching philosophy focused on integrating student-centered inquiry, innovation, and science in a cross-curricular manner into the general education setting. Population Education is a perfect match for a STEM curriculum because it connects science, technology, engineering, and mathematics to real-world environmental and social issues.

WHAT CONCEPTS RELATED TO POPULATION EDUCATION ALIGN WITH STEM LEARNING GOALS?

Population Education has the potential to integrate seamlessly into a variety of STEM initiatives. Population issues incorporate STEM concepts and learning objectives into areas of learning where science is typically excluded such as English language arts and social studies by connecting social issues to data and ecological trends.

Population Education aligns with STEM education by providing students with instruction that is:

- **Hands on:** *Interactive and engaging.*
- **Relevant:** *Relates to real-world issues and solutions.*
- **Action Driven:** *Inspires and empowers students to take action in solving environmental issues.*

For example, secondary students could examine age structure graphs and determine what the long-term population trends would be for a given nation based on the data provided.

WHAT RESOURCES ARE AVAILABLE TO HELP INTEGRATE POPULATION EDUCATION INTO THE STEM CURRICULA?

Population Education offers a variety of classroom resources, lesson plans, and professional development opportunities to help teachers meet the learning goals outlined by the National Science Teachers Association (NSTA) and the National Council of Teachers of Mathematics (NCTM). In Population Education lessons, students use real-world data and hands-on scenarios to apply concepts of math, science, social studies, and English language arts to analyze and assess contemporary environmental challenges. Sample topics include: carrying capacity, natural resource use, environmental health and quality, and population growth trends. Lesson plans and resources are available on the Population Education website and through professional development opportunities offered nationwide each year.