

12th Grade – Sample Math Lesson Starter 3

Sample Student Outcome: Students use statistics and probability knowledge, as well as critical thinking skills, to solve problems.

EXAMPLE: Stocking a Fish Pond – Copyright COMAP

Students develop understanding of basic measurements in order to describe populations and populated communities. Among these are population density, abundance of particular species, distribution of species, population size, and population age structures. Students model methods used by ecologists as well as environmental scientists (e.g., looking at a small portion of the population and make inferences about the whole, or comparing data taken after an environmental impact.) Students discuss the pros and cons of techniques for population estimation, understanding that no solution is foolproof.

MATH CONTENT STANDARD

Depending on how this lesson is developed, it can be aligned with various standards, such as:

F-LE.1. Distinguish between situations that can be modeled with linear functions and with exponential functions.

S-CP.5. Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations.

P21 SKILLS

- Environmental Literacy
- Critical Thinking
- Problem Solving
- Communication
- Creativity and Innovation

MATHEMATIC PRACTICE

- Reason abstractly and quantitatively
- Make sense of problems and persevere in solving them
- Construct viable arguments and critique the reasoning of others
- Look for and make use of structure
- Look for and express regularity in repeated reasoning



Source: COMAP <http://bit.ly/mTUTIt>