



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
2008 Volume VI: Depicting and Analyzing Data: Enriching Science and Math Curricula through Graphical Displays and Mapping

Displaying Populations: Jellybeans, Paper, and People

Guide for Curriculum Unit 08.06.02

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At the turn of century, six billion humans hovering around a 1% increase per year since 1990, have graced the planet. The human population is expected to reach nine billion by 2050. (TakingItGlobal, 2008). These figures are staggering to imagine, informative in a table and best represented pictorially in a graph. Students who are knowledgeable about their environment are more likely to make intelligent choices that contribute to world health (Guthrie, 2005). The New Haven Biology curriculum-embedded tasks are formative assessments designed to determine if students have grasped and can apply curricular materials. In the last unit just before the CAPT exam, Population Dynamics, students examine data displays of populations and are asked to present interpretations. The task is to complete and deliver a presentation that compares population pyramids of a developing country and a developed one. The focus of this unit is to provide the teacher with methods and activities that will help the student establish connections to this curriculum and enhance both learning and application of the task on human population dynamics. This unit is designed to show students the many ways in which data can be displayed. The unit will emphasize importance and simplicity in graphic displays. References to some pertinent information on how charts and graphs explain data will be provided. Students will learn how experts have used charts, tables and graphs to portray their data to make a point and look at careers involving data display. All lessons will be adaptable for any ability level.

(Developed for Biology, grade 10; recommended for Biology, grade 10)

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