

# Alternative Assessment—Unit 4.1

## Modeling Variation

### Grade 8 Science

#### Overview

Students model a cell with six chromosomes. They manipulate the model to show the formation of sex cells, fertilization, and zygote inheritance. They record the variations they create.

#### Content Standards

GLE 0807.5.4 Explain why variation within a population can enhance the chances for group survival.

GLE 0807.Inq.5 Communicate scientific understanding using descriptions, explanations, and models.

Learning Outcome: Manipulate models to determine the relationship between sexual reproduction and inherited variations.

#### Materials

Pairs of related but different objects such as colored paper clips, beads, paper strips, or pipe cleaners

#### Resources

See Tennessee Holt Science and Technology, Grade 8, TE p. 72 for a complete description of this assessment.

#### Assessment Rubric

Criteria	Advanced	Proficient	Below standard
Science content	Provides a clear comparison using appropriate scientific terminology; demonstrates a deep understanding	Provides an explanation using some scientific terminology correctly; some details unclear	No explanation or the explanation cannot be understood; inappropriate use of scientific terminology
Data	Effectively used scientific representations and notations to organize and display data	Gathered and recorded data	Data not recorded or not complete or not recorded in a manner that could be understood