

## Mystery of the Crooked Cell

### Goal 1.0 Skills and Processes

- 1.2.7 *The student will use relationships discovered in the lab to explain phenomena observed outside the laboratory.\**
- 1.2.6 The student will identify appropriate methods for conducting and investigation (independent and dependent variables, proper controls, repeat trials, appropriate sample size, etc.).
- 1.3.1 The student will develop and demonstrate skills in using lab and field equipment to perform investigative techniques<sup>NTB</sup>.
- 1.3.2 The student will recognize safe laboratory procedures.
- 1.3.3 The student will demonstrate safe handling of the chemicals and materials of science<sup>NTB</sup>.
- 1.3.4 The student will learn the use of new instruments and equipment by following instructions in a manual or from oral direction<sup>NTB</sup>.
- 1.4.2 The student will analyze data to make predictions, decisions, or draw conclusions.
- 1.5.1 The student will demonstrate the ability to summarize data (measurements/observations).
- 1.5.4 The student will use tables, graphs, and displays to support arguments and claims in both written and oral communication.
- 1.5.5 The student will create and/or interpret graphics. (scale drawings, photographs, digital images, field of view, etc.)
- 1.7.5 Students will investigate career possibilities in the various areas of science.

### Goal 3.0 Concepts of Biology

- 3.3.2 *The student will illustrate and explain how expressed traits are passed from parent to offspring.\**
- 3.1 The student will carry out scientific investigations effectively and employ the instruments, systems of measurement, and materials of science appropriately.
- 3.1.1 The student will be able to describe the unique characteristics of chemical substances and macromolecules utilized by living systems (specifically proteins).
- 3.2.1 The student will explain processes and function of related structures found in unicellular and multicellular organisms (transportation of materials – role of circulatory system).
- 3.3.3 The student will explain how a genetic trait is determined by the code in a DNA molecule.
- 3.3.4 The student will interpret how the effects of DNA alteration can be beneficial or harmful to the individual, society, and/or the environment.

\* Italicized CLG's are the primary focus of the laboratory activity.