

## SLO Student Learning Objectives

### Section 1 : Classroom Context

1a. Name	Amber N. Bollinger	1b. School	Exeter Township Senior High School
1c. District	Exeter Township School District	1d. Class/Course Title	Accelerated Biology
1e. Grade Level(s)	10	1f. Total # Of Students	24
1g. Typical Class Size	24	1h. Class Frequency	Daily for one semester
1i. Typical Class Duration	90 minutes		

### Section 2 : Goal

2a. Goal Statement

Compare the processes and outcomes of mitotic and meiotic nuclear divisions.

2b. PA Standards

#### View PA Core Standards

Bio.B.1.1 Describe the three stages of the cell cycle; interphase, nuclear division, cytokinesis.

Bio.B.1.1.1 Describe the events that occur during the cell cycle: interphase, nuclear division (i.e., Mitosis or Meiosis), cytokinesis.

Bio.B.1.1.2 Compare the processes and outcomes of mitotic and meiotic nuclear divisions.

2c. Rationale

PA Academic Standards for Science and Technology and Engineering Education identify the concepts of cellular division including meiosis and mitosis as big ideas necessary for Biology education.

### Section 3 : Performance Measures

#### Onion Cell Mitosis Laboratory & Mitosis/Meiosis Assessment

**3b. Type:** District-designed Measures and Examinations Student Projects

**3c. Purpose:** To measure comprehension of the processes and outcomes of mitotic and meiotic nuclear divisions.

**3d. Metric:** Mastery

**3e. Frequency:** Administered once per student per semester.

**3f. Adaptation:** Gifted

**3g. Resources:** Prepared onion root cell slides Microscopes Mitosis Assessment Meiosis Assessment Scantron Lined Paper Pencils

**3h. Scoring:** Onion Cell Mitosis laboratory guidelines Assessment answer key

**3i. Personnel :** Certified biology teacher can administer and score all performance indicator tasks.

**3j. Reporting :** Scores will be reported in skyward for the assessment and laboratory

### Section 4 : Performance Indicators

**Performance Measure: Onion Cell Mitosis Laboratory & Mitosis/Meiosis Assessment**

**Performance Indicator # 1**

4a. PI Targets: All Student Group: Students earn an average of 80% or higher on the Onion Cell Mitosis Laboratory

**Performance Indicator # 2**

4a. PI Targets: All Student Group: Students achieve an average of 80% or higher on both the Mitosis Assessment and Meiosis Assessment.

**Section 5 : Teacher Expectations**

5a. Level

Failing	
0	to 69 %
of student will meet the PI targets	

Needs Improvement	
70	to 79 %
of student will meet the PI targets	

Proficient	
80	to 89 %
of student will meet the PI targets	

Distinguished	
90	to 100 %
of student will meet the PI targets	

Teacher Signature: \_\_\_\_\_ Date: \_\_\_\_\_ Evaluator Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Final Rating**

5b.i Rating

- Failing
- Needs Improvement
- Proficient
- Distinguished

5b.ii.  
Notes/Explanation

Teacher Signature: \_\_\_\_\_ Date: \_\_\_\_\_ Evaluator Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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