COURSE

Unit Title

Essential Question

In what ways do cells use energy to communicate with one another?

Why and in what ways do cells communicate with one another?

Understandings

*Students will understand that:*

Knowledge:

*Students will know:*

Skills:

*Students will be able to:*

Curriculum Standards

Describe the ways that cells can communicate with one another.

Explain how cells communicate with one another over short and long distances.

Describe the components of a signal transduction pathway.

Describe the role of components of a signal transduction pathway in producing a cellular response.

Describe the role of the environment in eliciting a cellular response.

Describe the different types of cellular responses elicited by a signal transduction pathway.

Explain how a change in the structure of any signaling molecule affects the activity of the signaling pathway.

Describe positive and/ or negative feedback mechanisms.

Explain how negative feedback helps to maintain homeostasis.

Explain how positive feedback affects homeostasis.

Mission Integration

(*Note: could be combined with performance task/design thinking culminating assessment)*

Performance Task or Design Thinking Culminating Assessment

Other Evidence (formative assessments, summative assessments)

*what homework and other out of class experiences are needed to equip students?*

Topic Overview

*Order of topics presented (Calendar)*

Learning Plan

*Learning Activities - What experiential or inductive learning will help students to explore the big ideas and questions to achieve desired understandings? for their expected performances?*

Resources