 SCILLSS Classroom Science Assessment Workshop

# High School Life Science Unpacking Tool Activity Directions

To complete the Unpacking Tool Activity, use the **HS Life Science** **Partially Completed Unpacking Tool**. To complete the tool for the given standard, sort the statements below into the appropriate dimension (SEP, DCI, CCC) and section (*Key Aspect* or *Prior Knowledge*) on the tool. Use the recommended resources listed in the PowerPoint presentation. Note the statements are organized by dimension below to support your work.

## Science and Engineering Practices

* Interpret data to provide evidence for phenomena.
* Compare and critique arguments on the same topic by evaluating the evidence and/or interpretations of facts.
* Use scientific reasoning to construct an argument.
* Use an argument to support a solution to a problem.
* Support or refute an argument/explanation based on an analysis of data for a phenomenon or a solution to a problem.
* Use empirical evidence to support an argument.
* Evaluate arguments about a solution to a scientific/engineering problem based on scientific concepts, principles, and big ideas.
* Use an argument to refute a solution to a problem.

**Disciplinary Core Ideas**

* Changes in environmental conditions may result in increases in the emergence of new species over time.
* Genetic variations in a population result in some organisms having more advantageous traits.
* Human induced changes in the physical environment may result in changes in the number of individuals of some species and emergence of new species over time.
* Members of a population that cannot adjust to change that is too fast or drastic, lose the opportunity for the species’ evolution.
* Human induced changes affect the physical environment.
* Changes in environmental conditions may result in the decline or extinction of some species.
* Naturally occurring changes affect the physical environment.
* Species can change over time in response to changes in environmental conditions through adaptation by natural selection acting over generations.

## Crosscutting Concepts

* Empirical evidence is required to differentiate between cause and correlation.
* Some cause and effect relationships are complex and can only be predicted using probability.
* Find the cause that underlies a phenomenon (e.g., a discovery of patterns or events that occur together with regularity) and provide evidence in support of the explanation.

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