



Glue this side into your notebook.



# EVOLUTION

- CHECKLIST KEY**
- I could teach this.
  - I somewhat get it.
  - I've heard of it.
  - I need to learn this.

## THE THINGS I SHOULD KNOW BEFORE 8<sup>th</sup> GRADE:

- Fossils provide a point of comparison between living and extinct organisms.
- Both biotic and abiotic factors affect the survival of organisms.
- Living things have physical traits that enable them to live in different environments.

## THE MOST BASIC IDEAS TO KNOW AFTER THE UNIT:

- The Earth is 4.6 billion years old.
- Diversity of species occurs through gradual processes over many generations.
- Fossil records provide evidence that changes have occurred in number and types of species.
- Fossils can show information both about life and the environment.
- Environment and conditions can affect how beneficial a trait will be for the survival and reproductive success of an organism or entire species.
- Most species (99%) that have been alive have become extinct due to environmental changes.

## I KNOW...

a.	<input type="checkbox"/> what the geologic record means  <input type="checkbox"/> what the fossil record means
b.	<input type="checkbox"/> how sexual reproduction leads to diversity in a species  <input type="checkbox"/> how the environment could influence the variation in a species  <input type="checkbox"/> that organisms can behave and look different in appearance than their distant ancestors due to the many generations it takes for variations to occur in the species, NOT in an individual's lifetime
c.	<input type="checkbox"/> that most species (NOT just animals) that have existed (99%) are now extinct, from both gradual and sudden changes

## I CAN...

a.	<input type="checkbox"/> use both the geologic record and the fossil record to interpret Earth's history of life ( <i>including extinction, biodiversity, and the diversity of species</i> )  <input type="checkbox"/> use both the geologic record and the fossil record to interpret what the environment of Earth was like at the time of deposition and how the environment of Earth has changed
b.	<input type="checkbox"/> predict the beneficial, neutral, and harmful changes to organisms and the conditions that may have influenced the changes ( <i>including populations in isolation versus other populations; sudden changes versus gradual changes in environment</i> ) when looking at data for a species  <input type="checkbox"/> predict how variations in a species can allow some individuals of a species to survive when the environment changes  <input type="checkbox"/> interpret data of population traits/characteristics over time as the environment changes
c.	<input type="checkbox"/> interpret graphs to explain the history of species

## VOCABULARY

<input type="checkbox"/> geologic record	<input type="checkbox"/> genetic variation	<input type="checkbox"/> traits	<input type="checkbox"/> genes
<input type="checkbox"/> fossil record	<input type="checkbox"/> natural selection	<input type="checkbox"/> population	<input type="checkbox"/> diversity within a species
<input type="checkbox"/> evolution	<input type="checkbox"/> extinction	<input type="checkbox"/> organism	<input type="checkbox"/> individual
<input type="checkbox"/> species	<input type="checkbox"/> generation	<input type="checkbox"/> biome	<input type="checkbox"/> isolation
<input type="checkbox"/> sexual reproduction	<input type="checkbox"/> ancestor	<input type="checkbox"/> biodiversity	<input type="checkbox"/> fossil