

::: CLOSING THE CASE · SSA-STYLE QUIZ

The *Final Report*

5 questions · Florida Science Standards aligned · Do or Die

AGENT (STUDENT)

PERIOD

CASE DATE

STANDARDS

SC.7.L.15.3 — Explore the scientific theory of evolution by relating how t...**SC.7.L.15.2** — Explore the scientific theory of evolution by recognizing an...

:: Q1

SC.7.L.15.2

Which statement is true about evolution by natural selection?

- A It is a completely random process with no connection to the environment
- B It requires trait variation, differences in survival and reproduction, and inheritance of traits
- C It always produces a perfect adaptation for the environment
- D Organisms choose which traits to evolve

:: Q2

SC.7.L.15.2

A beach-mouse population becomes mostly light-colored after a predatory bird arrives. Why did the population change?

- A The dark mice changed their own fur color to avoid the bird
- B Light mice survived predation better and passed coat color to their offspring, so light coats became more common
- C The mice mutated to light fur on purpose when the bird appeared
- D The population decided together to adapt to the predator

:: Q3

SC.7.L.15.2

Coral populations are threatened by several environmental factors. Which of these is an ABIOTIC (non-living) factor?

- A Competitor species like algae crowding out the coral
- B Loss of the algal partners corals need to make food
- C An increase in ocean temperature or acidity
- D Disease-causing organisms spreading through the reef

:: Q4

SC.7.L.15.3

The Florida torrey tree is going extinct in a small part of north Florida. Which best explains why, in terms of adapting to a changing environment?

- A It adapted so well that it no longer needs to reproduce
- B It could not adapt to losing the animal that spread its seeds or to new fungal diseases, so its population keeps shrinking
- C Its environment never changed, so it simply got old
- D It moved to a new continent and outcompeted other trees

:: Q5

SC.7.L.15.3

Evolution can help organisms adapt, yet over 99% of species have gone extinct. Which best explains why so many populations FAIL to adapt?

- A Populations always have plenty of time and variation, so extinction is just bad luck
- B Adaptation can be blocked when there is not enough time, when the needed trait is not possible to build, or when there is not enough variation to select from
- C Extinction only happens during asteroid impacts and never otherwise
- D Species go extinct only when they choose not to evolve