Evolution Unit Choice Board

Directions: You must choose one box of tasks for each category. You will end up choosing three boxes total (One from history, one from evidence, and one from natural selection). Please reference ch. 10-12.

HISTORY	EVIDENCE	NATURAL SELECTION
-Trace the history of the theory by summarizing the findings of these key scientists: Linnaeus, Buffon, Erasmus Darwin, Lamarck, Charles Darwin. You must also define these theories: gradualism, catastrophism, punctuated equilibrium. -You must define the following terms: convergent evolution, divergent evolution, adaptive radiation, biodiversity, speciation, geographic isolation, molecular clock.	-Explain how fossil and biochemical evidence support the theory. You must include a discussion of fossil age, radioisotope dating, relative dating, extinction and structures that support the theory (analogous, homologous, and vestigial).	-Relate natural selection to changes in organisms. You must include a discussion of evolutionary fitness and types of selection (stabilizing, directional, disruptive). -Recognize the role of evolution to biological resistance (pesticide and antibiotic resistance). You must locate a scholarly article that addresses one of the following: Malpeque Bay oyster beds, pesticide resistance in insects, antibiotic resistance, or mutations in viruses and the effects on vaccines. After you locate the article, you must write a summary of how it relates to evolution.
HISTORY	**EVIDENCE**	**NATURAL SELECTION**
-Create a timeline that shows the history of the theory of evolution with the theories from Linnaeus, Buffon, Erasmus Darwin, Lamarck, Charles Darwin. Be sure to include these key theories on your timeline: gradualism, catastrophism, and punctuated equilibrium. -Create a matching quiz where students must pair the correct terms and definitions of these words: convergent evolution, divergent evolution, adaptive radiation, biodiversity, speciation, geographic isolation, molecular clock.	-Write a report that provides students with examples of evidence for the theory of evolution. In your report, you need to explain these terms: fossil age, radioisotope dating, relative dating, extinction, analogous, homologous, and vestigial structures.	-Create a Power Point or Prezi presentation that addresses evolutionary fitness, stabilizing, directional, disruptive types of selection. - You must locate 5 websites that addresses one of the following: pesticide resistance in insects or antibiotic resistance in bacteria.
HISTORY	**EVIDENCE**	**NATURAL SELECTION**
-Use Quizlet or some other free quiz website to create a quiz about these key evolutionary theorists: Linnaeus, Buffon, Erasmus Darwin, Lamarck, Charles Darwin and the 3 major theories: gradualism, catastrophism, punctuated equilibrium. -Create a fill-in-the-blank worksheet that addresses these terms: convergent evolution, divergent evolution, adaptive radiation, biodiversity, speciation, geographic isolation, molecular clock.	-Create a picture book that includes pictures of evidence for the theory of evolution with a brief explanation of each picture. Be sure to include these fossil age, radioisotope dating, relative dating, extinction, analogous, homologous, and vestigial structures.	-Sketch graphs that compare stabilizing, directional, disruptive selection. -Describe what it means for an organism to be evolutionary fit. -Choose one example of an organism that is known to show biological resistance to some factor and create a PSA to inform people about it.

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