

Evolution Unit 9



I CAN -

- 1. Describe the theory of evolution.
- 2. Explain how natural selection leads to adaptations.
Provide an example of natural selection
- 3. Discuss how natural selection has led to a variety of related organisms with similar yet different traits.
- 4. Discuss how natural selection produces changes in population rather than in individuals and why.
- 5. Explain how limited environmental resources results in a change in a population due to natural selection.
- 6. Explain how inherited variation results in differential reproductive success leading to natural selection.
- 7. Explain how producing more offspring than can survive results in differential reproductive success leading to natural selection.
- 8. Define speciation.
- 9. Explain how natural selection can lead to speciation
- 10. Describe the importance of reproductive isolation in speciation
- 11. Explain how genetic drift affects evolution and variation within a population. Provide an example of genetic drift
- 12. Explain how gene flow affects evolution and variation within a population. Provide an example of gene flow
- 13. Explain how mutations affect evolution.
- 14. Explain how the fossil record supports the theory of evolution.
- 15. Sequence the fossils by age when given a fossil record.
- 16. Explain how biogeography supports the theory of evolution.
- 17. Define homologous, analogous, and vestigial structures.
- 18. Analyze anatomical homologies to determine the evolutionary relationship
- 19. Define convergent and divergent evolution
- 20. Analyze developmental (embryological) homologies to determine the evolutionary relationship
- 21. Analyze molecular homologies (both amino acid and nucleotide) to determine the evolutionary relationship
- 22. Given a cladogram or phylogenetic tree, I can identify common ancestry and the relationship of species
- 23. Describe endosymbiotic theory.

Test Date:

Wednesday,

Feb. 20

Vocabulary

- 1) Natural Selection
- 2) Adaptation
- 3) Species
- 4) Diversity
- 5) Competition
- 6) Gene Frequency
- 7) Evolution
- 8) Variation
- 9) gene pool
- 10) genetic drift
- 11) gene flow
- 12) Speciation
- 13) Reproductive isolation
- 14) Punctuated equilibrium
- 15) Gradualism
- 16) Anatomical Structure
- 17) Homologous Structure
- 18) Stasis
- 19) Analogous Structure
- 20) Embryology
- 21) Vestigial Structure
- 22) Convergent Evolution
- 23) Divergent Evolution

Calendar

Monday 1/28	Tuesday 1/29	Wednesday 1/30	Thursday 1/31	Friday 2/1
Topic: Speciation Activities: Lizard Activity By the end of the period I can: 1, 2, 3, 5, 8, 9	Topic: Natural Selection Activities: Pre-Assessment, Natural Selection By the end of the period I can: 1, 2, 3, 4, 5, 6, 7	Topic: Natural Selection Activities: Natural Selection Lab By the end of the period I can: 1, 2, 3, 4, 5, 6, 7, 8, 9	Topic: Other Evolutionary Mechanisms Activities: Notes, Sup Aid - NS By the end of the period I can: 1, 2, 3, 4, 5, 6, 7, 8, 9	Topic: Other Evolutionary Mechanisms Activities: Moth/Bird Simulation for NS By the end of the period I can: 11, 12
Monday 2/4	Tuesday 2/5	Wednesday 2/6	Thursday 2/7	Friday 2/8
Topic: Other Evolutionary Mechanisms Activities: Chart – Drift & Flow By the end of the period I can: 11, 12, 13	Topic: Drift & Flow Activities: Genetic Drift Gene Flow Lab By the end of the period I can: 8, 9, 10, 11, 12, 13	Topic: Evidence for Evolution Activities: Molecular Homologies, embryology, fossils Sheet By the end of the period I can: 10, 11, 12, 13, 14, 15, 16, 20	Topic: Evidence for Evolution Activities: Anatomical Homologies and Cladograms Practice By the end of the period I can: 17, 18, 19, 20, 21, 22, 23	Topic: Evidence for Evolution Activities: Biogeography, Practice homology ID By the end of the period I can: 16, 17, 18, 19, 20, 21, 22, 23
Monday 2/11	Tuesday 2/12	Wednesday 2/13	Thursday 2/14	Friday 2/15
Topic: Evolution Activities: Quiz – Mid Assessment Patterns of Evolution By the end of the period I can: 1 - 22	Topic: Cladograms Activities: Cladograms Notes and practice By the end of the period I can: 1-22	LAD Topic: Endosymbiotic Theory Activities: Videos By the end of the period I can: 23 CAMPUS FIELD TEST ENGLISH Review in classes that meet Student Holiday
Monday 2/18	Tuesday 2/19	Wednesday 2/20	Thursday 2/21	Friday 2/22
..... Student Holiday	Topic: Evolution Activities: Review By the end of the period I can: 1-23 Evolution Exam

**** This is a tentative calendar and subject to change.

Put Glue Here for Notebook

	Pre-assessment Questions	<u>I don't fully understand this</u>	Mid-assessment Questions	<u>I fully understand this</u>	Post-assessment Questions	<u>I fully understand this well enough to explain it to others</u>
1. Describe the theory of evolution.	Can you?					
2. Explain how natural selection leads to adaptations. Provide an example of natural selection	4, 14					
3. Discuss how natural selection has led to a variety of related organisms with similar yet different traits	3, 13					
4. Discuss how natural selection produces changes in population rather than in individuals and why.	3, 7					
5. Explain how limited environmental resources results in a change in a population due to natural selection.	3, 14					
6. Explain how inherited variation results in reproductive success.	2					
7. Explain how producing more offspring than can survive results in reproductive success lead to natural selection.	17					
8. Define speciation.	Can you?					
9. Explain how natural selection can lead to speciation.	4					
10. Describe the importance of reproductive isolation in speciation (why species can't interbreed)	18					
11. Explain how genetic drift affects genetic variation within a population. Provide an example of genetic drift.	19					
12. Explain how gene flow affects genetic variation within a population. Provide an example of gene flow	13					
13. Explain how mutations affect evolution.	12, 15					
14. Explain how the fossil record supports the theory of evolution.	Can you?					

15. Sequence the fossils by age when given a fossil record.	9					
16. Explain how biogeography supports the theory of evolution.	20					
17. Define homologous, analogous, and vestigial structures.	Can you?					
18. Analyze anatomical homologies (body structures) to determine the evolutionary relationship	8, 10					
19. Define convergent and divergent evolution	Can you?					
20. Analyze developmental (embryological) homologies to determine the evolutionary relationship	16					
21. Analyze molecular homologies (both amino acid and nucleotide) to determine the evolutionary relationship	11					
22. Given a cladogram or phylogenetic tree, I can identify common ancestry and the relationship of species	1, 5, 6					
23. Describe Endosymbiotic Theory	Can you?					

What was my score on the unit pre-assessment? _____ / 100%

What was my score on the unit mid-assessment? _____ / 100%
 (Did I show improvement? _____)

What was my score on the unit post-assessment? _____ / 100%

How much did I grow (post – pre) _____ / 100%

Put Glue Here for Notebook

Evolution Unit

Reflection Pond

In the pond, reflect on your progress. Write about why you did not make as much progress on a specific area as you would have liked. What content in the TEK are you still uncomfortable with (refer to the actual TEK wording for detail about the TEK)? Be specific. Reflect on your strengths. Write about why were you successful on that content.



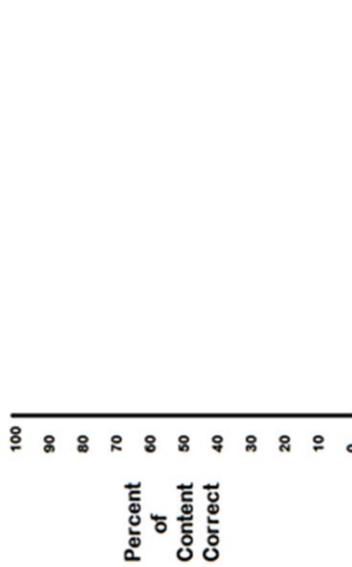
Strengths:

Weaknesses:

Reflection (why, how to improve, questions)



Where I Ended



B.7(F) Genetic Drift, Gene Flow, Mutation, Recombination

B.7(E) Natural Selection/Adapations

B.7(D) Factors of Natural Selection

B.7(C) Change in Populations

B.7(B) Fossil Record

B.7(A) Evidence for Evolution

Standard	I CAN Number(s)
B.7(A)	14-22
B.7(B)	14, 15
B.7(C)	4
B.7(D)	1-10
B.7(E)	2-3
B.7(F)	11-13