Academy of Richmond County

Teacher: Mrs. Appajodu Subject: Science Course: Biology Date(s): September 8th to Sept. 12th

Standards:

- SB5 a: Explain how the fossil record provides evidence for evolution.
- SB5 e: Analyze how different organisms have evolved over time based on fossil evidence.
- SB6: Analyze and interpret data to construct explanations.
- SB6: Engage in argument from evidence.

	Pre-Teaching **Learning Target** **Success Criteria**	**Activation of Learning** ***(5 min)***	**Focused Instruction** ***(10 min)*** ****I DO***	**Guided Instruction** ***(10 min)*** ****WE DO***	**Collaborative Learning** ***(10 min)*** ****YOU ALL DO***	**Independent Learning** ***(10 min)*** ****YOU DO***	**Closing** ***(5 min)***
Monday 09/08/2025	Students will be able to analyze fossil evidence to infer evolutionary relationships among species. Students will complete a worksheet where they will analyze provided fossil evidence, draw conclusions about evolutionary relationships, and present their findings to the class.	DO NOW! - "How can we determine the evolutionary relationships between different species using fossils?"	• Explain how scientists use fossils to identify common ancestors. • Present examples of fossils from different eras and their importance. EVIDENCE OF EVOLUTION.pptx	• Divide students into small groups and provide each with a set of fossil images. • Provide students with activity sheets and clear guidelines to perform the activity. • Monitor discussions and provide feedback to ensure understanding.	Evidence of Evolution Lab 1. Evidence of Evolution Lab.pdf		Review questions on today's topic.
Tuesday 09/09/2025	Students will be able to explain how environmental factors can drive evolutionary change, specifically focusing on the impact of fossils. Students will create a visual presentation that illustrates the relationship between environmental limitations, fossil evidence, and evolutionary changes in a specific species. They will include examples and evidence to support their claims, evidence and explaining its significance.	Think-Pair-Share: "How do you think environmental changes can affect the evolution of a species?" (Instruction- Write 3 key points on the above question)	Evidence of Common Ancestry and Diversity PHYLOGENY.pptx	<u>Cladogram Activity</u> • Assign students to research a specific species and create a visual presentation that connects environmental limitations to evolutionary changes observed in fossil records. • Set clear expectations for the presentation including the need for evidence and claims supported by research. 2. cladogram-student-es			"Exit ticket"- students must write down one new thing they learned about the connection between environmental factors and evolution.

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Wednesday 09/10/2025	Students will be able to engage in argument from evidence regarding the synthesis of fossil evidence and the environmental limitations that affect fossil records. Students will participate in a debate where they provide evidence to support their arguments about how environmental factors limit the fossil record synthesis.	Probing Question - "If you were a paleontologist, what environmental factors would you consider when interpreting fossil evidence?"	• An interactive lecture using visuals, including diagrams of fossilization and the geological time scale. • Encourage students to take notes and ask questions.	• Assign students to write a reflective essay where they argue how environmental limitations impact fossil evidence synthesis. • Provide a rubric outlining expectations for argument clarity, use of evidence, and understanding of concepts. Wednesday - Env.limitations& fossil			Share one new insight you gained about fossil evidence and environmental factors.
Thursday 09/11/2025	Students will work collaboratively to analyze fossil evidence, identify patterns of similarity and difference, and construct hypotheses about evolutionary relationships. Students will participate in a debate where they provide evidence to support their arguments about how environmental factors limit the fossil record synthesis.	Recap the previous day activity and continue with day-2 rubrics 4. Fossil Evidence Activity.docx	Group Work: • Examine the fossils carefully. Identify key features that change over time (limb structure, skull shape, size, teeth, etc.) Record observations in a comparison chart. • Infer the order of evolutionary change and construct a cladogram Rubrics: • Accurate identification of traits and fossil evidence – 3 POINTS • Logical reasoning behind the cladogram – 2 POINTS • Clarity of written report – 3 POINTS • Group Presentation – 2 POINTS • Collaboration within the group – 2 POINTS • Cladogram and other documentation – 3 POINTS				Share findings in a short class presentation (3–5 minutes).
Friday 09/12/2025	Students will be able to explain the various evidence that support the theory of evolution and analyze how environmental limitations influence the survival and adaptation of species. Students can identify and describe key evidence of evolution such as fossil records, comparative anatomy, and genetic similarities. They can analyze how environmental limitations can drive evolutionary changes over time.	Test on Evidence of Evolution and environmental limitations on fossil evidence TEST Evidence of Evolution.pdf					Mind map to summarize the content.