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| ***StandardsSB4.B* Analyze and interpret data to develop models (i.e., cladograms and phylogenetic trees) based on patterns of common ancestry and the theory of evolution to determine relationships among major groups of organisms.** **Assessment: ☐ Quiz ☐ Unit Test ☐ Project ☐ Lab ☐ None** |
|  | **Pre-Teaching***C:\Users\thiyasr\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\FEF22E5.tmp* **Learning Target** **Success Criteria 1** **Success Criteria 2** | **Activation of Learning***(5 min)* | **Focused Instruction***(10 min)****\*I DO*** | **Guided Instruction***(10 min)****\*WE DO*** | **Collaborative****Learning***(10 min)****\*Y’ALL DO*** | **Independent Learning***(10 min)****\*YOU DO*** | **Closing***(5 min)* |
| * Do Now
* Quick Write\*
* Think/Pair/Share
* Polls
* Notice/Wonder
* Number Talks
* Engaging Video
* Open-Ended Question
 | * Think Aloud
* Visuals
* Demonstration
* Analogies\*
* Worked Examples
 | * Call/Response
* Probing Questions
* Graphic Organizer
* Digital Whiteboard
 | * Discussions\*
* Expert Groups
* Labs
* Stations
* Think/Pair/Share
* Create Visuals
 | * Written Response\*
* Digital Portfolio
* Presentation
* Canvas Assignment
* Choice Board
* Independent Project
* Portfolio
 | * Group Discussion
* Exit Ticket
* 3-2-1
* Parking Lot
* Journaling\*
* Nearpod
 |
| **Mon Day 10/06/2025** |  **LT:** I can describe the three domains and explain how they represent clades. **SC1:** I can identify traits that distinguish Archaea, Bacteria, and Eukaryotes. **SC2:** I can explain why clades reflect shared ancestry. | **KWL Chart – Students list what they know/want to know about domains.** |

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**Think Aloud – Teacher models comparing Archaea vs. Bacteria using examples.** |

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| **Graphic Organizer (Guided) – Class completes 3-domain Venn diagram.** |

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 | **Jigsaw Strategy – Groups become “experts” on one domain, then share.** |

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| **Quick Write – “Which domain would extremophiles belong to and why?”** |

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 | **Exit Ticket** – One unique trait per domain. |
| **Tues day****10/07/2025** | ** LT: I can interpret phylogenetic trees to explain evolutionary relationships.**** SC1: I can identify common ancestors from branching points.**** SC2: I can construct a simple cladogram based on traits.** |

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| **Anticipation Guide – Students agree/disagree with: “Humans are more closely related to mushrooms than bacteria.”** |

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| **Direct Instruction + Worked Example – Teacher models how to read a cladogram.** |

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| **Error Analysis – Students fix a mis-labeled cladogram with teacher.** |

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 | **Reciprocal Teaching – Groups analyze different cladograms, present findings** | **Choice Board – Students choose to draw, write, or digitally model a simple cladogram.** | **3-2-1 Summary** – 3 things learned, 2 connections, 1 question. |
| **Wednes day****10/08/2025** | ** LT: I can evaluate DNA, fossils, and morphology as evidence for clades.**** SC1: I can connect DNA evidence to evolutionary relatedness.**** SC2: I can argue why clades are more accurate than older classification systems.** |

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| **Notice/Wonder – Show fossil timeline + DNA similarity chart, ask: “What patterns do you notice?”** |

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 | **Modeling with Anchor Chart – Teacher builds evidence chart (DNA, fossils, morphology** |

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| **Collaborative Annotation – Students highlight and discuss a short reading on clades.** |

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| **Socratic Seminar – Debate: “Why did scientists replace the 5 Kingdoms system with 3 Domains?”** |

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 | **Written Response – “DNA evidence is the strongest support for clades because…** | **Peer Debrief – Students share one new insight with a partner.** |