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| ***Standards:* SB6.a** *Construct an explanation of how new understandings of Earth’s history, the emergence of new species from pre-existing species, and our understanding of genetics have influenced our understanding of biology.* **SB6.b** *Analyze and interpret data to explain patterns in biodiversity that result from speciation.*   **SB6.c** *Construct an argument using valid and reliable sources to support the claim that evidence from comparative morphology (analogous vs. homologous structures), embryology, biochemistry (protein sequence), and genetics support the theory that all living organisms are related by way of common descent.*  **SB6.d** *Develop and use mathematical models to support explanations of how undirected genetic changes in natural selection and genetic drift have led to changes in populations 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 09/08/2025** | *C:\Users\thiyasr\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\FEF22E5.tmp*I I am learning how viruses evolve over time through mutation and selection.  I can describe how viral mutations lead to new strains. | Quick Write: 'Are viruses alive? Defend your claim.' | Think Aloud + Visuals: Compare virus vs. cell with diagrams. | Think/Pair/Share: Identify which traits viruses meet/fail. | Expert Groups: Create T-charts of 'Living vs. Non-living traits.' | Written Response: CER paragraph on whether viruses are living. | Exit Ticket: One-sentence summary + question. |
| **Tues day**  **09/09/2025** | I am learning how natural selection leads to antibiotic resistance in bacteria.. I can describe how viral mutations lead to new strains. | Engaging Video: Short influenza variants clip. | Demonstration/Analogy: Antigenic drift/shift with models. | Graphic Organizer: Flowchart mutation → new strain → population impact. | Socratic Seminar: 'Should viral evolution be considered evidence of life processes?' | Digital Portfolio: Summarize with diagrams uploaded to platform. | 3-2-1 Reflection: 3 learned, 2 connections, 1 question. |
| **Wednes day**  **09/10/2025** | I am learning how natural selection leads to antibiotic resistance in bacteria.  : I can explain how resistant populations emerge. | Notice/Wonder: Prompt with 'superbugs' news headline. | Worked Example: Resistant bacteria survival diagram. | Call & Response + Probing Qs: Predict outcomes of repeated use. | Debate: 'Antibiotic resistance is greatest threat to modern medicine.' | Choice Board: (a) Comic, (b) Article, (c) Infographic. | Exit Ticket: Define 'antibiotic resistance' in own words. |
| **Thurs day**  **9/11/2025** | I am learning how genetic drift changes populations by chance.  I can describe founder and bottleneck effects | Polls: 'Which influences evolution more – chance or selection?' | Think Aloud + Visuals: Simulation with colored beads. | Guided Simulation: Students run mini-drift activity. | Create Visuals: Diagram/storyboard of bottleneck/founder. | Independent Project: Write explanation connecting simulation to species. | Journaling: 'How does chance shape populations differently than adaptation?' |
| **Friday**  **09/12/202** | I am learning how new species form through speciation.  I can explain geographic isolation’s role in speciation. | Open-ended Question: 'How could one species split into two?' | Analogies: Isolation explained with real-world examples. | Reciprocal Teaching: Case study roles (summarizer, predictor, clarifier). | Stations: Analyze speciation case studies (Darwin’s finches, cichlids, island foxes). | Canvas Assignment: Mini-essay explaining speciation with evidence. | Nearpod Exit Poll: Choose most interesting mechanism this week and why. |