ASTEC Charter School Weekly Lesson Plan

Name: Jill Carson Class: Biology Date: 10-01-12

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|  |  | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| **1**  **6** | Standard or Pass Skill:  Objective:  Bell work  Anticipatory  set:  Lesson Line:  Product/Evaluation  Closure/Exit  Activity #: | 1.1 The Cell, 1.1 Cell Structures and Functions, 1.2 Differentiation of cells  Recognize the differences between prokaryotic and eukaryotic cells. Recognize the differences between animal and plant cells. Understand the function of the organelles in these different cells.  What are the components of the cell theory?  Cell Model: TW show students cell models created by previous students. Remind students of project requirements and due date.  SW participate in Interactive Cell Structure Review with built in quizzes.  <http://www.wiley.com/legacy/college/boyer/0470003790/animations/cell_structure/cell_structure.htm>  SW participate in Active Art-Cell  <http://www.phschool.com/webcodes10/index.cfm?fuseaction=home.gotoWebCode&wcprefix=cbp&wcsuffix=3072>  Participation in interactive cell structure review for daily activity grade.  **Repeat the anticipatory set to review and engage the learner**  **6, 11, 12** | 1.1 The Cell, 1.1 Cell Structures and Functions, 1.2 Differentiation of cells  Understand the relative sizes of objects, including the cell, sketch and identify the function of cell structures; compare eukaryote to prokaryote cells; compare plant and animals cells  What are the components of the cell theory?  Cell Model: TW show students cell models created by previous students. Remind students of project requirements and due date.  SW in pairs complete the Cells Alive-Internet Lesson Parts A, B, and C.  <http://www.biologycorner.com/worksheets/cellsalive.html>  Finish Parts A, B, and C of Cells Alive Internet Lesson. Project Grade  **Repeat the anticipatory set to review and engage the learner**  **6, 11, 12, 13** | 1.1 The Cell, 1.1 Cell Structures and Functions, 1.2 Differentiation of cells  Understand the relative sizes of objects, including the cell, sketch and identify the function of cell structures; compare eukaryote to prokaryote cells; compare plant and animals cells  What are the components of the cell theory?  Cell Model: TW show students cell models created by previous students. Remind students of project requirements and due date.  SW in pairs complete the Cells Alive-Internet Lesson Parts D.  <http://www.biologycorner.com/worksheets/cellsalive.html>  TW display EOI Test and Item Specifications on smartboard. SW work through questions related to Standard 1-The Cell  <http://ok.gov/sde/sites/ok.gov.sde/files/Core-TISpec-Biology.pdf>  Complete Cells Alive Part D for project grade. Participate in Item Specs for part of daily grade  **Repeat the anticipatory set to review and engage the learner**  **6, 11, 12, 13** | 1.1 The Cell, 1.1 Cell Structures and Functions, 1.2 Differentiation of cells, 1.3 Specialized Cells,  Recognize the various organelles in plant and animal cells. Understand the function of the organelles. Recognize the differences between plant and animal cells.  What are the major differences between plant and animal cells?  Cell Model: TW show students cell models created by previous students. Remind students of project requirements and due date.  SW work on Cell Model Project- creating a 3D representation of a plant or animal cell using Styrofoam balls, clay/play-doh, etc…  Students to follow rubric to gage progress.  **Repeat the anticipatory set to review and engage the learner**  5, 11, 18-art (I will be absent) | 1.1 The Cell, 1.1 Cell Structures and Functions, 1.2 Differentiation of cells, 1.3 Specialized Cells,  Recognize the various organelles in plant and animal cells. Understand the function of the organelles. Recognize the differences between plant and animal cells.  What are the major differences between plant and animal cells?  Cell Model: TW show students cell models created by previous students. Remind students of project requirements and due date.  SW finish work on Cell Model Project- creating a 3D representation of a plant or animal cell using Styrofoam balls, clay/play-doh, etc…  SW setup Osmosis Lab- Observing Osmosis, “How does osmosis occur in an egg cell?” SW complete Day 1 and record info and date in table.  Cell Model for Project grade, Lab setup for part of daily activities grade.  **Repeat the anticipatory set to review and engage the learner**  5, 11, 18-art |

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|  |  | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| **3**  **4**  **7** | Standard or Pass Skill:  Objective:  Bell work  Anticipatory  set:  Lesson Line:  Product/Evaluation  Closure/Exit  Activity #: | Explain the structure and function of ecosystems and relate how ecosystems change over time.  Describe ways that human activity can later effect biogeochemical cycles as well as food webs and energy pyramids.  What abiotic and biotic factors can interfere with the process of photosynthesis? What biogeochemical cycle would be affected when photosynthesis is altered?  Virtual Farm Activity  Guided Practice-SW work in pairs to complete ‘Nitrogen, Farms, Fish, Bears, and Salmon’  SW complete guided practice as part of daily activity grade  **Repeat the anticipatory set to review and engage the learner**  3, 6, 11, 13 | Explain the structure and function of ecosystems and relate how ecosystems change over time.  Describe ways that human activity can later effect biogeochemical cycles as well as food webs and energy pyramids.  In what ways are humans dependent on the nitrogen cycle working correctly?  Virtual Farm Activity  Practice-SW in groups complete ‘Pesticide Spraying’ lab report  SW complete Independent Practice for lab report grade  **Repeat the anticipatory set to review and engage the learner**  **9, 11** | Explain the structure and function of ecosystems and relate how ecosystems change over time.  Explain how the acquisition and use of resources, urban growth, and waste disposal can accelerate natural change and impact the quality of life.  What is global warming? What do you think is the cause of global warming?  Cartoon Motivation:SW look at the cartoon: What do you think they are hinting at in this cartoon? SW infer from the cartoon that global warming is the main topic. This will lead to a brief intro to how human affect biogeochemical cycles and the atmospheric issues associated.  Teacher guided notes with imbedded interactive activities ‘Atmospheric Issues’  Notes for part of daily activity grade  **Repeat the anticipatory set to review and engage the learner**  **3, 6, 11, 12** | Explain the structure and function of ecosystems and relate how ecosystems change over time.  Explain how the acquisition and use of resources, urban growth, and waste disposal can accelerate natural change and impact the quality of life.  What is pollution? In what ways can you limit pollution?  None-I will be absent  SW individually complete handouts ‘Food Web II’ and ‘Biomes Concept Map’  Handout for part of daily activity grade  **Substitute will collect handouts**  18-seat work for substitute | Explain the structure and function of ecosystems and relate how ecosystems change over time.  Describe ways that human activity can alter biogeochemical cycles (e.g., carbon dioxide and nitrogen  cycles) as well as food webs and energy pyramids (e.g., pest control, legume rotation crops vs. chemical fertilizers)  How does your actions directly or indirectly impact the world? (i.e., turning off light when you leave the room, running water while you are not using it?, etc….  Ball of yarn: connections  Opportunities to relearn: SW will sit an a large circle, index cards will be given to students, they will create a web to illustrate how the terms are connected, TW hand ball of string to student and ask them to think of a way the term on the card is related to another card, SW explain the connection and then holding on to the string pass the ball to that student, this continues until all terms are connected, those who don’t have a card are to describe the connections that are not in the web.  Relfection paper for part of daily activity grade  **Repeat the anticipatory set to review and engage the learner**  5, 6, 7, 11 |

Indicate all that apply: 1. Lecture 4. Demonstration 7. Role Play 10. Teacher-Centered 13. Computer 16. Flip Cameras

2. Overhead 5. Hands-on 8. Drama 11. Student-Centered 14. Responders 17. Digital Camera

3. Discussion 6. Simulation 9. Experiment/lab 12. SMART Board 15. NEO2 18. Other