Lesson Plan Template

Day 1

Grade: High School	**Subject: Biology**
Materials: notebook	**Technology Needed:**
Instructional Strategies: □ Direct instruction □ Guided practice □ Socratic Seminar □ Learning Centers □ Lecture □ Technology integration □ Other (list) □ Peer teaching/collaboration/ cooperative learning □ Visuals/Graphic organizers □ PBL □ Discussion/Debate □ Modeling	**Guided Practices and Concrete Application:** □ Large group activity □ Independent activity □ Pairing/collaboration □ Simulations/Scenarios □ Other (list) □ Hands-on □ Technology integration □ Imitation/Repeat/Mimic Explain:
Standard(s) **HS-LS1-2** Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.	**Differentiation** **Below Proficiency:** **Above Proficiency:** **Approaching/Emerging Proficiency:** **Modalities/Learning Preferences:**
Objective(s) Students will be able to identify what makes a cell a cell. Students will be able to compare and contrast eukaryotic cells and prokaryotic cells. Students will be able to identify the different organelles of animal cells**.** **Bloom's Taxonomy Cognitive Level:**	
Classroom Management- (grouping(s), movement/transitions, etc.) Students will complete bell work independently. The other questions will be turn and talk with partner and whole group discussions.	**Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.)**

Minutes	**Procedures**
	Set-up/Prep:
5-7	**Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.)** **Bell work:** To introduce the unit of cells I will start with asking a discussion about what students think a cell is and how to classify something as a cell. This will be their bell work question for the day with discussion to follow.
35	**Explain: (concepts, procedures, vocabulary, etc.)** Introduction and overview of unit. - History of the cell - Prokaryotic vs. eukaryotic - Cell organelles

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	- Plant vs. Animal Cells - Cell membrane and transportation of molecules across gradients Discuss the history of the cell and how far our technology has come. We will start notes on cell theory and history. Use Guided Notes Discussion notes (3.1 of book) Robert Hooke by looking at cork How can looking at cork be proof there are cells in things? Basic unit of life Produced by other living cells All organisms are made of cells Are even chairs made of cells? How do we prove what is and isn't made of cells? Plant cells discovered by Matthias Scheiden Denote timeline of scientific discovery of cells If cells make up every living thing, what makes something alive? • Chemical uniqueness • Complexity and hierarchical organization • Reproduction • Possession of genetic program • Metabolism • Development • Environmental interaction • Movement
8-10	**Explore: (independent, concreate practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions)** How do we think scientists found cells if they are so small? What are some examples of things that have cells? How do you know?
	Review (wrap up and transition to next activity): Tomorrow we will be looking at prokaryotic and eukaryotic cells.

Formative Assessment: (linked to objectives) **Progress monitoring throughout lesson- clarifying questions, check-in strategies, etc.** questions and bell work will be used as formative assessments	**Summative Assessment (linked back to objectives)** **End of lesson:** **If applicable- overall unit, chapter, concept, etc.:**

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Consideration for Back-up Plan:	
Reflection (What went well? What did the students learn? How do you know? What changes would you make?):	

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Appendix

The **bolded** words will be what the students need to fill in.

Guided Notes:

History of the cell

In **1665** English scientists **Robert Hooke** discovered the cell when looking at cork under the microscope

Reminded him of **rooms in a monastery** so named them **cells**

He was looking at dead plant cells

In **1674** Leeuwenhoek made better lenses and observed cells in greater details

In 1838 **Schleiden** first noted that plants are made of cells

1839 **Schwann** came up with cell theory

- All living organisms are made of cells
- All existing cells are produced by other living cells
- Cell is basic unit of life