**Unit Plan Template (Part 1)**

Part 1: Textbook Concept list

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| --- | --- |
| Concept | Definitely, Maybe, or Don’t Include? |
| Cell theory | Definitely |
| Prokaryotes vs. Eukaryotes | Definitely |
| Organelle functions | Definitely |
| Organelles in plant & animal cells | Definitely |
| Cell membrane function | Definitely |
| Cell wall function | Definitely |
| Diffusion vs. Osmosis | Maybe |
| Facilitated diffusion | Maybe |
| Active transport | Maybe |
| Unicellular & Multicellular organisms | Maybe |
| Levels of organization | Maybe |

Part 2: Illinois Learning Standards Concept List

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| --- | --- | --- |
| Concept | Descriptor | Definitely, Maybe, or Don’t Include? |
| Cell theory | 12A.4.b | Definitely |
| Prokaryotes vs. Eukaryotes | 12A.4.b | Definitely |
| Organelle functions | 12A.4.b | Definitely |
| Organelles in plant & animal cells | 12A.4.b | Definitely |
| Cell membrane function | 12A.4.b | Definitely |
| Cell wall function | 12A.4.b | Definitely |
| Diffusion vs. Osmosis | 12A.4.b | Maybe |
| Facilitated diffusion | 12A.4.b | Maybe |
| Active transport | 12A.4.b | Maybe |
| Unicellular & Multicellular organisms | 12A.4.b | Maybe |
| Levels of organization | 12A.4.b | Maybe |

Use the table below to complete part 3 of your Unit Plan Assignment

|  |  |  |  |
| --- | --- | --- | --- |
| Concept | This Unit, Another Unit, or Leave Out? | Rationale | Related ILS |
| Cell theory | This unit | Cell theory is a fundamental concept to the curriculum of biology. Without it, there would be zero understanding of living things. Cell theory is the building block of science, not just of life. | 12A.4.b |
| Prokaryotes vs. Eukaryotes | This unit | Having the knowledge of cell theory, students are expected to learn the different types of cells. Then they can learn what makes up the different types of cells. | 12A.4.b |
| Organelle functions | This unit | Once students understand cell theory, they need to know that different organelles make up the cell and how they all work together as a cohesive unit. | 12A.4.b |
| Organelles in plant & animal cells | This unit | After knowledge of organelle functions in a cell, it is best to describe the different types of organelles found in plant and animal cells. It is taking the big picture of cells and breaking them down into smaller parts, like what they are made of and how they function. | 12A.4.b |
| Cell membrane function | This unit | After students have learned about the organelles inside the cell, they should learn how the organelles stay in the cell, specifically during movement throughout the body. | 12A.4.b |
| Cell wall function | This unit | This concept goes along with the cell membrane function concept. They both discuss and explain how a cell keeps its shape and size throughout the body. | 12A.4.b |
| Diffusion vs. Osmosis | Another unit, The Cell in Action | This concept is best suited in the unit The Cell in Action to describe how cells move throughout the body. While it does still deal with cells, I would move it because in order to understand diffusion and osmosis, students need a wide range of knowledge about the cell in general, before they can fully understand how cells move. | 12A.4.b |
| Facilitated diffusion | Another unit, The Cell in Action | This concept, to me does not align completely with the title of my unit. The unit I would move it to would be The Cell in Action. I would want to assess my students of their understanding on the cell before moving onto how it moves. | 12A.4.b |
| Active transport | Another unit, The Cell in Action | As stated above, I would move this concept to another unit too, where I think it would best suit the flow I would want to take in my class. | 12A.4.b |
| Unicellular & Multicellular organisms | Another unit, Organization of Living Things | This concept, Unicellular & Multicellular organisms, go back to the big picture of cells and for that I think it should be moved to a unit that describes the organization of living things. It would make more sense for the students’ perspective to learn about it when talking about different types of animals, i.e. unicellular and multicellular organisms. | 12A.4.b |
| Levels of organization | Another unit, Organization of Living Things | This concept will follow the previous one since it goes in depth of the organization of multicellualr organisms. | 12A.4.b |

Use the table below to complete parts 4 & 5 of your Unit Plan Assignment.

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| --- | --- |
| Concept | Objective(s) |
| 1. Cell theory | * Students should be able to define the 3 statements that make up the cell theory. |
| 2.Prokaryotes vs. eukaryotes | * Students should be able to list the difference between prokaryotes and eukaryotes. |
| 3. Organelle functions | * Students should be able to identify what each organelle’s function is in the cell. |
| 4. Organelles in plant & animal cells | * Students should be able to list 3 structures found in plant cells that are not in animal cells. * Students should be able to make a Venn diagram of the similarities and differences between plant and animal cells. |
| 5. Cell membrane function | * Students will be able to define the function of a cell membrane. |
| 6. Cell wall function | * Students will be able to define the function of a cell wall. |

Use the table below to complete part 6 of your Unit Plan Assignment.

|  |  |  |  |
| --- | --- | --- | --- |
| Units Preceding This One | Reasoning | Unit Following This One | Reasoning |
| None | I would teach this unit first because every living thing is made of cells. Having a concrete understanding of the cell is essential for everything that follows in a biology class. | Cell growth/cell division | Once students have learned the structure and function of cells, they can expand their knowledge of the cell, into how cells grow and divide. The terminology related to cell structure and function is also a great segue into cell growth and cell division. |