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|  **Science 9** |
| **Unit Big Idea: Cells are derived from cells.** | **Unit Guiding Question: What are cells and where do they come from?** |
|  | **Goals** | **Access** |  |  |  | **Extension** |
| **Content** | **Sexual****and****asexual****reproduction** | I know what cells are and why they divideI know identical and non-identical | I know the outcome of mitosis and meiosisI know the 6 different forms of asexual reproductionI know how humans reproduce | I know the different stages of mitosis and meiosis and their relevanceI know the difference between asexual and sexual reproduction  | I know how mitosis and meiosis create genetic variation | I know the significance of mitosis and meiosis in relationship to the survival of living organisms |
| **Curricular Competencies** | **Microscope Skills** | I can find specimens  | I can use the microscope’s features appropriately | I can use the microscope’s features effectively to ensure an efficient search  | I can troubleshoot challenges that arise with microscope use and can explain what is happening as I apply its features | I can compare different types of microscopes (light TEM, SEM) and explain their benefits |
| **Graphing Skills** | I can read graphsI can identify dependent and independent variables  | I can read graphsI can correctly place the independent and dependent variablesI can correctly create a graph with key features | I can interpret basic graphsI can correctly create a graph with key features, proper increments, and scale  | I can select the most effective type of graph to use with specific dataI can create graphs electronically and by hand | I can interpolate and extrapolate from the graphed data |

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|  | **Goals** | **Access** |  |  |  | **Extension** |
| **Curricular Competencies** | **Inquiry Project****Questions** | I can come up with possible explanations to my wonderings | I can make an informed hypothesis about a scientific question | I can come up with multiple informed hypothesis about a scientific topic | I can formulate new hypothesis based on new information in a scientific inquiry | I can predict multiple outcomes to my own inquiry |
| **Inquiry Project** **Sources/citations** | I can explain the difference between sources and citations | I understand how CRAAP is used to assess sources I make attempts to cite my sources | I use CRAAP to assess my sources I cite my main sources |  I can search effectively search to ensure valid sourcesI correctly cite all my sources | I demonstrate a healthy and informed skepticism in evaluating claims in secondary sources |
| **Inquiry Project****Apply learning** | I can find a topic that is connected to what we have learned | I can demonstrate how my topic transfers and applies my learning to new situations | I can demonstrate the innovative role of scientists and technology in relation to my topic | I can apply my topic to explore solutions to local or global problems | I can generate new or refined ideas as a result of my inquiry. |

* Inquiry project should demonstrate a sustained intellectually curiosity about a scientific topic or problem of personal interest.
* Competencies that are based on the inquiry project must be demonstrated through the inquiry presentation.