**Cells**

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| **Big Idea** | **Access Point** | **Emerging** | **Developing** | **Proficient** | **Extending** |
| Life processes are performed at the cellular level | Distinguishes between living and non-living things | Recognizes that all living things are made of cells | Explains cell theory in relation to the complexity of living organisms | Analyzes arguments related to cell theory and viruses and communicates effectively using scientific language, conventions, and representations | Proposes future implications of arguments related to cell theory and communicates effectively using scientific language, conventions, and representations |
| Understands that all living things are made of small units called cells | State the cell theory and use it to sort living and nonliving things in the local environment. | Identify eukaryotes and prokaryotesModel photosynthesis and cellular respiration in organisms in the local environment | Analyzes patterns in data and connects to secondary sources related to how organelles’ functions contribute to life processes. | Relate microorganisms (e.g. bacteria) to humans (good and bad interactions and interventions) |
| Cells are derived from cells | Identifies cells as the primary unit of multi-cellular organisms | Defines cell theory | Describes basic processes involved in meiosis and mitosis, represents in a variety of ways | Assesses how the process of human reproduction has created diversity, considers multiple knowledges, uses appropriate terminology. | Consider social, ethical, and environmental implications of potential abuses of this scientific field (e.g. cloning, GMO) |