

6.6 Cells and Development

Content Area: **Science**
Course(s): **Science 6**
Time Period: **Marking Period 4**
Length: **25 days**
Status: **Published**

Established Goals/Standards

SCI.MS-LS1-1	Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells.
SCI.MS-LS1-2	Develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the function.
SCI.MS-LS1-3	Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.

Technology Standards

TECH.8.1.8.C.CS4	Contribute to project teams to produce original works or solve problems.
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NJ 21st Century Life and Careers/NJ Career Ready Practices

CAEP.9.2.8.B.3	Evaluate communication, collaboration, and leadership skills that can be developed through school, home, work, and extracurricular activities for use in a career.
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Interdisciplinary Connections

ELA/Literacy -

WHST.6-8.7 [Conduct short research projects to answer a question \(including a self-generated question\), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.](#) (MS-LS1-1)

Mathematics -

6.EE.C.9 [Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.](#) (MS-LS1-1)

Essential Questions

- How do cells contribute to the functioning of an organism?
- How do organisms change as they go through their life cycle?

- To what extent do living things depend on their parts to survive?

Enduring Understanding

- Living organisms have a variety of observable features that enable them to obtain food and reproduce.
- Organisms grow, develop, and have predictable life cycles.

Content

- All living things are made up of cells.
- Cells absorb food, breaking it down with oxygen in the process of respiration to obtain usable energy.
- Cells have organelles with specific structure and function.
- Each system in an organism serves a specific function that together allows the organism to survive.
- Multicellular organisms are organized in tissues, organs, organ systems.
- Organisms can be unicellular or multicellular
- Plants and animals reproduce. Plants have a variety of ways and specialized features for reproduction.

Assessment

Summative assessment: student-created project answering the question "How do living things grow and develop?"

Formative Assessments

- Participation/Observations
- Questioning
- Discussion Circles
- Science Notebook
- Exit Slips
- Peer/Self Assessment
- Rubrics
- Teacher-created project-based assessment
- Turn & Talk

Alternate Assessments

- Teacher-created project-based assessment
- Alternate running records
- Discussion Circles
- Turn and Talks

Benchmark Assessments

- Teacher-created assessment

Accommodations and Modifications

Accommodations and Modifications according to student IEP, 504, I&RS goals, and/or gifted status.

Resources

- Amplify
- Discovery Education
- NeoSci kit: Why cells aren't big