**Subsidiary Course Agreement and Syllabus**

**Course: Science 7** **Course** **Number: 6003**

**Subject Teacher: Linda Patterson**  **Email: lpatterson@sandi.net**

**Description of Semester Course**

Three-dimensional learning in the Amplify Science Middle School 7th Grade Course The Amplify Science Grade 7 Integrated Course includes nine units that support students in meeting the NGSS. The following unit summaries demonstrate how students engage in three-dimensional learning to solve real world questions and problems. **Geology on Mars**: Students make scientific arguments about whether flowing water or flowing lava formed a channel on Mars. They use models to figure out how systems (such as the atmosphere and geosphere) interact on Earth and other planets. **Plate Motion**: Students figure out how fossils of one kind of animal came to be separated by an ocean due to tectonic plate motion over millions of years. To solve the mystery, students obtain information from articles, videos, and models, and they analyze patterns in maps. **Rock Transformations**: Students write explanations and make visual models showing why rock formations in the Great Plains and Rocky Mountains are made of similar materials. They figure out how energy flowing through Earth’s systems transforms rock materials. **Phase Change**: Students develop and use models to figure out if a lake on Titan, a moon of Saturn, froze or evaporated. They explain how energy transfer and attraction between molecules affect molecular motion at a small scale and phase change at a large scale. **Chemical Reactions:** Students figure out how changes at the atomic scale caused a large-scale problem in a town’s water supply. They ask questions, use models, and read articles to learn about properties of substances, atoms, and molecules, and chemical reactions. **Populations and Resources**: Students figure out why a population of jellies in an ecosystem is increasing dramatically. They plan and conduct investigations to figure out how stability and change in populations of animals is affected by resource availability. **Matter and Energy in Ecosystems:** Students construct explanations for why a fictional biodome ecosystem collapsed. They figure our cause-and-effect relationships in ecosystems related to the cycling of carbon atoms during photosynthesis and cellular respiration.

**Objectives and Methods of Study**

Each month, students in this course must complete the following work:

1. Work through each lesson in units assigned.

2. At end of each unit, complete end of unit test.

3. Turn in all student work each month.

**Resources**

* Weekly Study Groups: See the schedule posted by the school.
* Materials will be posted on Google Classroom and some handed out in study group each week.
* Amplify website: [my.amplify.com](http://www.phschool.com/atschool/california/science_explorer/)
* Linda Patterson website: <https://lindapatterson.weebly.com/7th-grade-science.html>

This website includes Ms. Patterson’s policies and includes a page with information particular to your course.

**Monthly Topics, Chapter Content and Technology Focus**

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| --- | --- | --- |
|  | **NGSS Standards** | **Performance Expectations**  CA NGSS Standards |
| **Month 1** | Geology on Mars | [MS-ESS2-2](https://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/MS-ESS2-2%20Evidence%20Statements%20June%202015%20asterisks.pdf)  [Jump to PPE](https://docs.google.com/document/d/1y6nnFtM8IvXprXG45Fqk5lSgVIh4UUA_u6K1s-oXbrk/edit#bookmark=id.lb77rj5xff9u) |
| **Month 2** | Plate Motion | [MS-ESS2-3](https://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/MS-ESS2-3%20Evidence%20Statements%20June%202015%20asterisks.pdf)  [Jump to PPE](https://docs.google.com/document/d/1y6nnFtM8IvXprXG45Fqk5lSgVIh4UUA_u6K1s-oXbrk/edit#bookmark=id.k2k499etfl2t) |
| **Month 3** | Rock Transformations | [MS-ESS2-2](https://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/MS-ESS2-2%20Evidence%20Statements%20June%202015%20asterisks.pdf)  [Jump to PPE](https://docs.google.com/document/d/1y6nnFtM8IvXprXG45Fqk5lSgVIh4UUA_u6K1s-oXbrk/edit#bookmark=id.lb77rj5xff9u) |
| **Month 4** | Phase Change | [MS-PS1-4](https://drive.google.com/open?id=1ZjCWoL3u8XcI0hkAllSKesUN5VXdzy9KQCv8fpd01IA)  [Jump to PPE](https://docs.google.com/document/d/1y6nnFtM8IvXprXG45Fqk5lSgVIh4UUA_u6K1s-oXbrk/edit#bookmark=id.enyefvr7tsyo) |
| **Month 5** | Phase Change | [MS-PS1-4](https://drive.google.com/open?id=1ZjCWoL3u8XcI0hkAllSKesUN5VXdzy9KQCv8fpd01IA)  [Jump to PPE](https://docs.google.com/document/d/1y6nnFtM8IvXprXG45Fqk5lSgVIh4UUA_u6K1s-oXbrk/edit#bookmark=id.enyefvr7tsyo) |
| **Month 6** | Chemical Reactions | [MS-PS1-2](https://drive.google.com/open?id=1FyYdVyHKOr7YqEx_aF9cnh-WnVikyr4tnV9RRNHWLsU)  [Jump to PPE](https://docs.google.com/document/d/1y6nnFtM8IvXprXG45Fqk5lSgVIh4UUA_u6K1s-oXbrk/edit#bookmark=id.1g7bbstfr8t6) |
| **Month 7** | Populations and Resources | [MS - LS2-1](https://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/MS-LS2-1%20Evidence%20Statements%20June%202015%20asterisks.pdf)  [Jump to PPE](https://docs.google.com/document/d/1y6nnFtM8IvXprXG45Fqk5lSgVIh4UUA_u6K1s-oXbrk/edit#bookmark=id.59emwjpn6gs4) |
| **Month 8** | Matter and Energy in Ecosystems | [MS-LS1-6](https://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/MS-LS1-6%20Evidence%20Statements%20June%202015%20asterisks.pdf)  [Jump to PPE](https://docs.google.com/document/d/1y6nnFtM8IvXprXG45Fqk5lSgVIh4UUA_u6K1s-oXbrk/edit#bookmark=id.wnnzf4why7p3) |
| **Month 9** | Matter and Energy in Ecosystems | [MS-LS1-6](https://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/MS-LS1-6%20Evidence%20Statements%20June%202015%20asterisks.pdf)  [Jump to PPE](https://docs.google.com/document/d/1y6nnFtM8IvXprXG45Fqk5lSgVIh4UUA_u6K1s-oXbrk/edit#bookmark=id.wnnzf4why7p3) |
| **Month 10** | Matter and Energy in Ecosystems | [MS-LS1-6](https://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/MS-LS1-6%20Evidence%20Statements%20June%202015%20asterisks.pdf)  [Jump to PPE](https://docs.google.com/document/d/1y6nnFtM8IvXprXG45Fqk5lSgVIh4UUA_u6K1s-oXbrk/edit#bookmark=id.wnnzf4why7p3) |

**Evaluation Criteria and Methods**

1. Attendance credit for each month and all assignments will be based on submission of monthly work by due dates listed on assignment agreement.
2. Work submitted after the due date cannot earn full credit.
3. Academic grades will be based on the skills assessed each month along with quality and quantity of work submitted on time according to directions and expectations above.
4. In keeping with SDUSD procedure #5121 the following grades will be used:

**"A”** = Superior achievement.

**"B"** = Above average achievement.

**"C"** = Satisfactory achievement.

**"D"** = Below average achievement.

**“F”** = Failure (credit not granted).

**"I"** = Incomplete.

**"IP"** = In Progress.

**“NC”** = No Credit

**Schoolwide Learner Outcomes**

* Communicate effectively through reading, writing, listening and speaking.
* Think and solve problems independently and critically.
* Demonstrate the confidence, resilience, and self-esteem to succeed in life.
* Use resources, including technology, to locate needed information.
* Demonstrate good citizenship and personal integrity.