

# **Grade 7 Science Syllabus**

Mrs. Mazalewski and Mrs. Hagerty

Email: cmazalewski@olg.org / mhagerty@olg.org



The mission of Our Lady of Grace Catholic School is to form Christ-centered disciples, grounded in faith and knowledge, to become servant leaders. The mission of OLG 7<sup>th</sup> grade Physical Science instruction is to spark curiosity and build a solid foundation in physical science and chemistry by exploring the fundamental principles that govern matter, its properties and states at a micro- and macroscopic level, and resulting energy. Additionally, students will analyze the impacts of the distribution of Earth's natural resources and how responsible environmental stewardship contributes to a sustainable future. By fostering curiosity and critical thinking, OLG 7<sup>th</sup> grade Science class prepares students to ask meaningful questions and approach challenges with a scientific mindset.

#### **COURSE OUTCOME:**

## • Course Objective/Description:

o Through inquiry-based learning, hands-on activities, collaborative experimentation, and real-world applications, students will be empowered to understand matter and energy as well as understand the importance of natural resources in sustaining life on Earth.

#### • Curriculum:

- Physical Science 7 follows the Next Generation Science Standards (NGSS)
- o Physical Science 7 utilizes the Discovery Education Platform's California Science Techbook as well as supplementary information and science/engineering lab and activity worksheets vetted and selected by the Physical Science 7 teacher to provide a blend of learning on paper with technology. Students will be provided with online access to the Discovery Education Platform.

# Science 7 Teaching Staff:

- o Mrs. Mazalewski 5th, 6th, and 7th Science Teacher
- Mrs. Hagerty 7th and 8th Grade Science Teacher
- Guest speakers to present specific science/engineering concepts throughout the academic year.

#### **INSTRUCTION:**

## Materials Needed:

- Chromebook (provided by OLG School)
- Science Graphing Notebook
- **o** Pencils
- o Blue or black ink pens
- Red ink pens

# • Physical Science 7 Concepts Sequentially Taught:

- Classroom Lab Safety Procedures, Scientific Tools for Measurement, and Policies
- o Introduction to Earth Science
- Minerals of Earth's Crust
- o Energy Resources
- Plate Tectonics, Earthquakes, and Volcanoes
- o The Flow of Fresh Water
- o Agents of Erosion and Deposition
- History of Earth/Evolution
- o Interactions of Living Things/Classification
- o Heredity
- Properties of Matter: Solids, Liquids, and Gases
- o Introduction to Atoms, Elements, and Chemical Reactions

#### **ASSESSMENT:**

## • Competencies:

**o** This curriculum is developed for on-grade level 7<sup>th</sup> grade students.

# Grading Policy:

- o Students will be required to participate in a variety of class activities. Some of these will be assessed for basic student understanding in order to direct instruction and will not have a direct impact on report card grades. Other activities will be used as an artifact in a body of evidence to determine student proficiency on a specific learning goal.
- Assessment is based upon the following categories of demonstrated proficiency/work:
  - Assessments/Quizzes (typically announced in advance)
  - Classwork to include science labs and activities
  - Science/Engineering Project
  - Collaborative participation in group or partner science/engineering activities and Technology-based assignments
- o Assessment scores are based upon Standard Referenced Grading (SRG) levels:
  - 4.0 Exceeding the Standard (Student demonstrates understanding beyond the standard without any assistance and without errors).
  - 3.0 Meeting the Standard (Student demonstrates understanding of target content, with little or no assistance and minimal errors).
  - 2.0 Progressing toward the Standard (Student demonstrates some basic knowledge or skills necessary for meeting the target content).
  - 1.0 Beginning to Develop the Standard (Student needs help or assistance to have partial success with target content).

#### Course Calendar/Schedule:

**o** There are three academic terms. For each term, students will receive a mid-term progress report with assessed scores as well as final term report cards.

## • Assignments:

- o Classwork will typically consist of teacher-led concept introduction and teacher-guided hands-on labs and exploration activities. Students will then use class time to take relevant notes and apply knowledge during labs/activities to demonstrate mastery of unit concepts and scientific methodology.
  - Science Notebooks: Students will be directed to use their Science Notebooks to capture notes (by science topic) presented by the teacher
  - Labs/Activities: Students will be provided Lab worksheets with guided procedural steps to perform scientific exploration by formulating a hypothesis, completing experiment steps, observing/recording results, analyzing data to state evidence-based conclusions.
- **o** Homework may be assigned to supplement classwork and reinforce in-class learning.

#### **TEACHER COMMUNICATION:**

Ways in which I communicate with the students and parents are as follows:

#### o For Students:

- Science 7 Google Classroom (Code: e3fgzhd4) for class assignments and announcements
- 7<sup>th</sup> Grade Homework Hotline

#### o For Parents:

- Individual email, as needed
- Parents may contact me via email to ask for clarifications or to schedule a parent/teacher conference, as needed.

## **CLASSROOM EXPECTATIONS FOR STUDENTS:**

- All students will comply with the Our Lady of Grace S.O.A.R. expectations for successful learning and behavior. Persistent or blatant non-compliance will result in immediate notification to school administration for appropriate follow-up with student and parents.
- Class participation Students should participate actively in class by completing science unit
  worksheets, taking and reviewing class notes, and completing science labs/activities and lab
  record write-ups (either individually or working with partners) as well as work cooperatively in
  groups with their peers.
- Additional Science 7 Honor Code:
  - **o** Each student will work to his/her full potential.
  - Each student will treat all members of the class with respect.
  - Each student will be honest and be responsible for the integrity of his/her actions.

| V                          | vill receive a grade of zero on the assignment and the teacher will contact the parent.  |
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| • F                        | P/LATE WORK POLICY: or absences: Per OLG Jr High policy, it is the student's responsibility to coordinate with the eacher to get/complete missed classwork, homework, and assessment/quiz by an greed-to-date. |
| <u>Acknow</u><br>in the sy | <b>ledgement</b> : Please sign this document to acknowledge that you have read and agree to all term llabus.   |
| Student                    | Signature:   |
| Parent S                   | ignature:  |
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• Consequences for Academic Dishonesty/Cheating: A student found cheating or aiding in cheating