Dominican International School

Gr. 6 SCIENCE
COURSE SYLLABUS

GRADE LEVEL: 6 SCHOOL YEAR: 2023 – 2024

TEACHER: Ms Janice Doyle EMAIL: jdoyle@dishs.tp.edu.tw

COURSE DESCRIPTION:

Grade 6 Science is an integrated science course that explores the scientific method through the study and experimentation of topics in Physical Science, Life Science and Earth & Space Science.

The science curriculum at DIS is informed by the **SLOs - The D'Torch:**
Dominicans Are:

Truthful
- We are guided by the Gospel and universal values.
- We center our lives on God's teachings.
- We show respect to all.

Organized
- We set goals and pursue them to fruition
- We maintain a balance between a healthy body, mind and spirit.
- We engage responsibly with the world, through a variety of resources.

Reflective
- We reflect upon our strengths and weaknesses.
- We aim to respond, rather than to react.
- We determine patterns, make connections, and think critically.

Courageous
- We are open and responsive to new and diverse perspectives.
- We are willing to take risks and graciously accept results.
- We communicate effectively.

Helpful
- We evaluate all decisions in the light of the common good.
- We are compassionate and caring.
- We respect and care for the environment.

COURSE OBJECTIVES:

Students in middle school continue to develop understanding of four core ideas in the physical sciences. The middle school performance expectations in the Physical Sciences build on the K – 5 ideas and capabilities to allow learners to explain phenomena central to the physical sciences, life sciences and earth and space sciences.

The performance expectations in physical science blend the core ideas with scientific and engineering practices and crosscutting concepts to support students in developing useable knowledge to explain real world

phenomena in the physical, biological, and earth and space sciences. Performance expectations at the middle school level focus on students developing understanding of several scientific practices.

These include developing and using models, planning and conducting investigations, analyzing and interpreting data, using mathematical and computational thinking, and constructing explanations; and using these practices to demonstrate understanding of the core ideas.

PRIMARY TEXTBOOK & OTHER RESOURCES:

- American Museum of Natural History, Anderson, M., Berwald, J., Bolzan, J. F., Clark, R., Craig, P., … Zorn, M. (2017). *Integrated iScience Course 1 (Frog).* Student Edition. McGraw Hill Education
- Students also have an online version of the textbook https://connected.mcgraw-hill.com/c2j/dashboard.do?bookId=PD6NM83PZ46BF4KC5TV3O4BGR1
- Internet for added information/research
- Notepaper, writing utensils and a binder with plastic sleeves for storing **ALL** notes, assignments, etc.

ASSESSMENT:

Homework and classwork are graded based on the level of completion and submission dates. Students are responsible for checking an assignment's due date, which will be posted on Google Classroom. Students are expected to submit work by the due date, during class time, even if the teacher has not given a verbal reminder. Any late work suffers a 10% deduction after 1 day, and a maximum score of 60% thereafter. Students also have to go to Project I to complete the assignment. Students who are absent are responsible for keeping up with the class by doing the work assigned, and submitting homework due on their return to school.

Tests and Quarterly Exams are announced in advance. Pop Quizzes are unannounced and can be given at any time during the class, so students must come to class prepared. Students who miss a scheduled Test or Quarterly Exam must make up the test/exam ASAP on their return to school. The student must bring a medical certificate or proof of an emergency on the day he/she returns to school. FAILURE TO DO SO WILL RESULT IN A **ZERO** BEING GIVEN FOR THE TEST/EXAM. If the student does not make up the test/exam at the earliest, a maximum score of **60%** will be given. If a student is absent for more than one test/exam, additional penalties will be given.

Grades will be computed following the school wide policy of 30% Classwork, Homework and Projects, 30% Tests, 30% Quarter Exam and 10% Deportment. **All** work done by the students will be graded and used for formative or summative assessment. A variety of assessment tools will be used to evaluate performance.

Academic Dishonesty means employing a method or technique or engaging in conduct in an academic endeavor that contravenes the standards of ethical integrity expected at DIS. Academic dishonesty includes but is not limited to, the following:

1. Purposely incorporating the ideas, words of sentences, paragraphs, or parts thereof without appropriate acknowledgment and representing the product as one's own work; and
2. Representing another's intellectual work such as photographs, paintings, drawings, sculpture, or research or the like as one's own, including failure to attribute content to an AI.
3. Employing a tutor, making use of Artificial Intelligence without acknowledgement, getting a parent to write a paper or do an assignment, paying for an essay to be written by someone else and presented as the student's own work.
4. Committing any act that a reasonable person would conclude, when informed of the evidence, to be a dishonest means of obtaining or attempting to obtain credit for academic work.

Any act of academic dishonesty will result in an automatic zero on the entire assignment

ADDITIONAL INFORMATION:

Please see **Google Classroom** for more information. Class codes: Gr. 6 St. Hyacinth – **kcnqzvx**
Gr. 6 Bl. Ceslao – **edsxkfa**

SCIENCE GR. 6 2023-2024
1st QUARTER – TENTATIVE COURSE CONTENT

(NB: Depending on time and interest, the teacher may delete and/or add other selections.)

Week / Date	Topic / Projects / Assessments
Week 1 **Aug 10th & 11th** **2 School Days** *11 ~ First Day / Orientation Day*	Wednesday – Orientation Introduction to course and textbook **Methods of Science** Lesson 1: Understanding Science
Week 2 **Aug 14th to 18th** *15 ~ Opening Mass*	**Methods of Science** Lesson 1: Understanding Science Activity / Lab Work: Lab Safety Rules' posters
Week 3 **Aug 21st to 25th**	**Methods of Science** Lesson 2: Measurement and scientific tools Activity / Lab Work: Inquiry Skill Practice p. NOS 19 What can you learn by collecting and analyzing data?
Week 4 **Aug 28th to Sept 1st**	**UNIT 1 – Exploring Earth** **Chapter 2 – Earth in Space** Lesson 1: The Sun Earth Moon System Activity / Lab Work: Inquiry Mini Lab 2-1 Pg. 47 What causes eclipses? (Standard MS-ESS1-1)
Week 5 **Sept 4th to 8th** *8 ~ Mass & VIP Induction*	**Chapter 2 – Earth in Space** Lesson 1: The Sun Earth Moon System Activity / Lab Work: Inquiry Mini Lab 2-1 Pg. 47 What causes eclipses? (Standard MS-ESS1-1)
Week 6 **Sept 11th to 15th** *12-14 ~ Pre-Exam Days*	Lesson 2: The Solar System Activity / Lab Work: Inquiry Launch Lab 2-2 Pg. 51 How does rotation affect shape? (Standard MS-ESS1-3)
Week 7 **Sept 18th to 22nd**	Lesson 2: The Solar System Activity / Lab Work: Inquiry Launch Lab 2-2 Pg. 51 How does rotation affect shape? (Standard MS-ESS1-3)
Week 8 **Sept 25th to 29th** **No Classes** *25-28 ~ Teacher's Conf* *29 ~ Moon Festival*	Lesson 3: Stars, Galaxies, and the Universe Activity / Lab Work: Inquiry Mini Lab 2-3 Pg. 60 How does mass affect a star? (Standard MS-ESS1-2)
Week 9 **Oct 4th to 8th** **3 Days of Class** *5 & 6 ~ Q1 Exams*	Q1 Exam Review Q1 EXAMS Q1 Exam Presentations

2nd QUARTER – TENTATIVE COURSE CONTENT

(NB: Depending on time and interest, the teacher may delete and/or add other selections.)

Week / Date	Topic / Projects / Assessments
Week 1 (10) **Oct 9th to 13th** **3 Days of Class** *9-10 ~ Double 10 Holiday*	**Chapter 3 – Our Planet Earth** Lesson 1: Earth Systems Activity /Lab Work Pg. 96: How do Earth's systems interact? (Standard MS-ESS1-3)
Week 2 (11) **Oct 16th to 20th**	**Chapter 3 – Our Planet Earth** Lesson 2: Interactions of Earth Systems Activity /Lab Work Pg. 96: How do Earth's systems interact? (Standard MS-ESS1-3)
Week 3 (12) **Oct 23rd to 27th**	**Chapter 4 – Earth's Dynamic Surface** Lesson 1: Earth's Moving Surface Activity / Lab Work: Inquiry Launch Lab 4-1 Pg. 107: How can movement deep within the Earth change its surface? (Standard MS-ESS2-2)
Week 4 (13) **Oct 30th to Nov 3rd** *1 ~ All Saint's Day Mass*	**Chapter 4 – Earth's Dynamic Surface** Lesson 2: Shaping Earth's Surface Activity / Lab Work: Inquiry Skill Practice 4-2 Pg. 123: Do the locations of earthquakes and volcanoes form a pattern? (Standard MS-ESS3-2)
Week 5 (14) **Nov 6th to 10th**	**Chapter 4 – Earth's Dynamic Surface** Lesson 3: Changing Earth's Surface Activity / Lab Work: Inquiry Lab 4-3 Pg. 132 (Standards MS-ESS2-2, MS-ESS3-1)
Week 6 (15) **Nov 13th to 17th**	**Chapter 5 – Natural Resources** Lesson 1: Energy Resources (Standard - MS-PS1-3)
Week 7 (16) **Nov 20th to 24th**	**Chapter 5 – Natural Resources** Lesson 2: Renewable Energy Resources (Standard - MS-PS1-3)
Week 8 (17) **Nov 27th to Dec 1st**	**Chapter 5 – Natural Resources** Lesson 3: Land Resources Activity / Lab Work: Inquiry Launch Lab 5-3 P 161: What resources from land do you use every day? (Standard - MS-PS1-3)
Week 9 (18) **Dec 4th to 8th** 8 ~ Foundation Day Celebrations	**Chapter 5 – Natural Resources** Lesson 4: Air and Water Resources (Standard - MS-PS1-3)
Week 10 (19) **Dec 11th to 15th** **3 Days of Class** *14-15 ~ Q2 Exams*	REVIEW **Q2 EXAMS**
Dec 18th to Jan 1st	**Christmas Break**

3rd QUARTER – TENTATIVE COURSE CONTENT

(NB: Depending on time and interest, the teacher may delete and/or add other selections.)

Week / Date	Topic / Projects / Assessments
Week 1 (20) **Jan 2nd to 5th** **3 Days of Class** *4 ~ New Year Mass*	**UNIT 2 – Exploring Life** **Chapter 6 – Life's Classification and Structure** Lesson 1: Classifying Living Things Activity / Lab Work: Inquiry Launch Lab 6-1 Pg. 188: How can you tell whether it is alive? (Standard MS-LS1-1)
Week 2 (21) **Jan 8th to 12th**	**Chapter 6 – Life's Classification and Structure** Lesson 1: Classifying Living Things Activity / Lab Work: Inquiry Launch Lab 6-1 Pg. 188: How can you tell whether it is alive? (Standard MS-LS1-1)
Week 3 (22) **Jan 15th to 19th**	**Chapter 6 – Life's Classification and Structure** Lesson 2: Cells Activity / Lab Work: Inquiry Mini Lab 6-2 Pg. 202: What can you see in a cell? (Standard MS-LS1-5)
Week 4 (23) **Jan 22nd to 26th**	**Chapter 8 – Introduction to Plants** Lesson 1: Plant Diversity (Standard MS-LS1-4)
Week 5 (24) **Jan 29th to Feb 2nd**	**Chapter 8 – Introduction to Plants** Lesson 1: Plant Diversity (Standard MS-LS1-4)
Week 6 (25) **Feb 5th to 9th** **3 Days of Class** *8-9 ~ CNY*	**Chapter 8 – Introduction to Plants** Lesson 2: Plant Reproduction Activity/Lab Work: Mini Lab 8-2 Pg. 257 How do plant seeds differ? (Standard MS-LS1-4)
Feb 8th to 16th	**Chinese New Year Break**
Week 7 (26) **Feb 19th to 23rd** *19 ~ Lenten Mass* *21-23 ~ Pre-Exam Days*	**Chapter 8 – Introduction to Plants** Lesson 2: Plant Reproduction Activity/Lab Work: Mini Lab 8-2 Pg. 257 How do plant seeds differ? (Standard MS-LS1-4) **IOWA TESTS**
Week 8 (27) **Feb 26th to March 1st** **4 Days of Class** 28 ~ 228 Memorial Day Holiday	**Chapter 8 – Introduction to Plants** Lesson 3: Plant Processes Activity / Lab Work: Inquiry Launch Lab 8-3 Pg. 260 How important is light to the growth of a plant? (Standard MS-LS1-6)
Week 9 (28) **March 4th to 8th** **4 Days of Class** *8 ~ Q3 Exams*	REVIEW **Q3 EXAMS**

4th QUARTER – TENTATIVE COURSE CONTENT

(NB: Depending on time and interest, the teacher may delete and/or add other selections.)	
Week / Date	**Topic / Projects / Assessments**
Week 1 (29) **March 11th to 15th** **4 Days of Class** *11 ~ Q3 Exams* *12 ~ Q4 Begins*	**Chapter 9 – Introduction to Animals** Lesson 1: What are Animals?
Week 2 (30) **March 18th to 22nd** *18-21 ~ Fire Drill*	**Chapter 9 – Introduction to Animals** Lesson 2: Invertebrates (Standard MS-PS2-5)
Mar 25th - Apr 5th	**Easter Break**
Week 3 (31) **Apr 8th to 12th** *10 ~ Easter Mass*	**Chapter 9 – Introduction to Animals** Lesson 3: Chordates (Standard MS-PS2-5)
Week 4 (33) **Apr 15th to 19th**	**UNIT 3 – Understanding Matter** **Chapter 11 - Matter and Atoms** Lesson 1: Substances and Mixtures Activity / Lab Work: 11-1 Pg. 365: How it Works (Standard - MS-PS1-3)
Week 5 (34) **Apr 22nd to 26th** 22-26 ~ AP Mock Exams	**UNIT 3 – Understanding Matter** **Chapter 11 - Matter and Atoms** Lesson 2: The Structure of the Atom Activity / Lab Work: Inquiry Lab 11- 2 Pg. 374 Balloon Molecules (Standard - MS-PS1-1)
Week 6 (35) **Apr 29th to May 3rd** *1-2 ~ Pre-Exam* *1-10 ~ Final Exams (K, 5, 8, 12)* *4/29 – 5/10 ~ AP Exams*	**Chapter 12 – Matter: Properties and Changes** Lesson 1: Matter and its Properties Activity / Lab Work: Inquiry Skill Practice 12-1 Pg. 395 How can you calculate density? (Standard - MS-PS1-5)
Week 7 (36) **May 6th to 10th** *1-10 ~ Final Exams (K, 5, 8, 12)* *4/29 – 5/10 ~ AP Exams*	**Chapter 12 – Matter: Properties and Changes** Lesson 2: Matter and Its Changes Activity / Lab Work: Inquiry Skill Practice 12-2 Pg. 403 Is mass conserved during a chemical reaction? (Standard - MS-PS1-5)
Week 8 (37) **May 13th to 17th** **2 Days of Class** *15-16 ~ Q4 Exams* *17 ~ Record Day*	REVIEW **Q4 EXAMS**
Week 9 (38) **May 20th to 24th** ACTIVITIES: *Double check the school calendar and emails from the administration.*	*20-24 ~ Student Clearance Days* *21 ~ Baccalaureate Mass for Graduating classes* *22 & 23 ~ Middle & High School Sports Day* *23 ~ Pre-Kindergarten & Gr. 1 - 4 Recognition / Kindergarten Graduation / Gr. 5 Promotion* *24 ~ Gr. 6 – 7 Recognition and Gr. 8 Graduation* *24 ~ Lower School Sports Day*
Week 10 (39) **May 27th to 31st** ACTIVITIES: *Double check the school calendar and emails from the administration.*	*27 ~ House Culminating Activity* *28 ~ Gr. 9-11 Recognition and Gr. 12 Graduation* *29 ~ Class Party* *30 ~ Last Day of School & Report Card Distribution (half day)* *31 ~ Teachers/Staff Meeting*