Dominican International School
台北市私立道明外僑學校
No. 76, Dazhi Street, Taipei (104042), Taiwan, R.O.C.
10464 臺北市中山區大直街 76 號

COURSE SYLLABUS

School Year	2025-2026
Subject	Science
Grade Level	6
Teacher	Mr. Springer
Email	jspringer@dishs.tp.edu.tw

COURSE DESCRIPTION:
This 6th Grade Science course provides students with a comprehensive exploration of fundamental scientific concepts across life science, physical science, and earth science. Through inquiry-based investigations, model development, data analysis, and argumentation, students will deepen their understanding of cells, body systems, reproduction of organisms, energy transfer, the water cycle, weather, climate, and human impact on the environment. The course emphasizes scientific literacy, critical thinking, problem-solving, and effective communication of scientific ideas.

COURSE OBJECTIVES: By the end of the semester/school year, (SWAT) Students will be able to:

- **Life Science:**
  - **Cells & Body Systems:** Understand the relationship between cells and life, identify cell parts and functions, and explain how cells organize into interacting subsystems (tissues, organs, organ systems) to support life functions in multicellular organisms.
  - **Reproduction:** Explain how organisms reproduce (sexually and asexually), how traits are passed from one generation to the next, and how genetic and environmental factors affect growth and reproduction in plants and animals.

- **Physical Science:**
  - **Energy & Matter:** Investigate methods of thermal energy transfer, analyze factors affecting these transfers, and understand how energy determines the state of matter.

- **Earth Science:**

  - **Water Cycle & Climate:** Explore how water cycles among Earth's systems, analyze the energy and forces driving this cycle, and investigate the causes of global circulation and its effects on weather and regional climates.
  - **Human Impact:** Analyze how human activities impact Earth's land, water, atmosphere, and climate, and propose solutions to minimize these impacts.

- **Scientific Practices:**

  - **Investigation & Modeling:** Plan and carry out investigations, develop and use models to represent scientific phenomena, and collect and analyze data.
  - **Explanation & Argumentation:** Construct explanations for scientific relationships, engage in arguments from evidence, and obtain, evaluate, and communicate scientific information effectively.
  - **Critical Thinking:** Apply scientific reasoning to support or refute claims and design solutions to scientific problems.

PRIMARY TEXTBOOKS AND OTHER RESOURCES:

- Grade 6 Science Textbook (***Inspire Science: Integrated G6***)
- Scientific articles and readings
- Online simulations and interactive tools
- Educational videos and documentaries
- Google Classroom for assignments, announcements, and resources.

GRADING SYSTEM/ASSESSMENT:

Student performance will be assessed through a variety of methods, including:

- **Quizzes & Tests:** (e.g., module quizzes, unit tests)
- **Models & Presentations:** (e.g., cell models, water cycle diagrams, project presentations)
- **Notebook Checks & Classwork:** (e.g., structured notes, activity responses, exit tickets)
- **Participation & Discussion:** (e.g., Think & Share activities, small group and whole class discussions)

Grading Breakdown:

Tests/Quizzes/Projects: 30%

Classwork/Homework: 30%

Exam: 30%

Deportment: 10%

ADDITIONAL INFORMATION:
Please always check Google Classroom for homework and announcements.

ACADEMIC DISHONESTY:
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:

- Purposely incorporating the ideas, words of sentences, paragraphs, or parts thereof without appropriate acknowledgment and representing the product as one's work;
- Representing another's intellectual work, such as photographs, paintings, drawings, sculpture, research, or the like, as one's own, including failure to attribute content to an AI.
- Employing a tutor, using Artificial Intelligence without acknowledgment, getting a parent to write a paper or do an assignment, and paying for an essay to be written by someone else and presented as the student's work.
- 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.
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Any act of academic dishonesty will result in an automatic zero on the entire assignment/learning task.

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First Quarter Tentative Course Content

Week/Date	Topic/Projects/Assessments
Week 1 (August 12 to 15) **4 days of class** 12-General Assembly at the Gymnasium 15-Opening Mass & Assumption of Our Lady	Unit 1: Life Structure and Function • Characteristics of Living Things: Introduction & Evidence for Cells • Investigating Different Types of Cells & Cell Scale • Engineered Solutions for Observing Cells • Planning Investigations to Distinguish Living/Nonliving Things • Carrying out Investigations: Living vs. Nonliving
Week 2 (August 18 to 22) 18-St. Dominic de Guzman Feast Day Celebration) Integrated during the Monday Assembly 20- House Shirt & Blue Jeans Day Starts 22- Club Orientation and Club Sign-up	• Parts of Cells and Their Functions: Cell as a Whole • Exploring How Cell Parts Contribute to Function • Developing & Using Cell Models (Day 1) • Developing & Using Cell Models (Day 2) • Module 1 Review & Quiz
Week 3 (August 25 to 29) 27- High School Talk - "Kickstart Your Success: Winning Mindsets for a Great School Year" 29- First Club Meeting	• Organization of Cells in Multicellular Organisms: Introduction • Exploring & Modeling Body as Interacting Subsystems (Cells to Tissues) • Cells to Organs and Organ Systems: Carrying out Specific Tasks • Engaging in Arguments: Cellular Organization & Life Functions (Day 1) • Engaging in Arguments: Cellular Organization & Life Functions (Day 2)
Week 4 (September 1 to 5) 1- Launching of the World Day of Prayer for the Care of Creation (During the Monday Assembly) 1-AP Registration 3- AEO Fall University Fair 5- House Ceremony	• Structure & Support in Multicellular Organisms: Introduction • Interacting Systems for Structural & Supportive Body Functions • Movement & Skeletal System Support: Argumentation (Day 1)

	• Movement & Skeletal System Support: Argumentation (Day 2) • Obtaining Energy & Removing Waste: Digestive System Structure/Function
Week 5 (September 8 to 12) 8- Holy Mass: Nativity of the Blessed Virgin Mary & VIP Induction 10- House Mini Games Start	• Digestive System Interaction with Excretory System • How Plants Obtain Energy: Photosynthesis Basics • Argumentation: Plants & Animals Obtain Energy Differently (Day 1) • Argumentation: Plants & Animals Obtain Energy Differently (Day 2) • Material Transport in Multicellular Organisms: Introduction
Week 6 (September 15 to 19) 15- Catholic Bridge Program for all New Students (After the Monday Assembly at the Gymnasium) 19- Athletics / Sports Orientation 19- PSAT/NMSQT Registration deadline	• Vascular System of Plants • Respiratory System of Animals • Circulatory System of Animals • Interacting Subsystems: Moving Materials (Respiratory/Circulatory) • Argumentation: Blood's Role in Breathing
Week 7 (September 22 to 26) 22- Celebration of the International Day of Peace-Peace Pole Ceremony (During the Monday Assembly) Teacher's Day Celebration & 26- Teachers' Appreciation 26- Grade 12 Career Educational Trip 24 to 26-Pre-Exam Days	• Control of Life Functions & Information Processing: Nervous System • Sense Receptors: Structure & Function • Obtaining, Evaluating, & Communicating Information: Sense Receptors • Stimuli & Response in Plants • Unit 1 Review (Cells & Body Systems)
Week 8 (September 29 to October 3) 29- Launching of the Month of the Holy Rosary (During the Monday Assembly)	Quarter 1 Exams / Project-Based Assessments

Oct. 1-2- First Quarter Exam (half day)	
Oct. 3-DIS Teachers and Staff Recognition Day/ Record Day *Recollection for Aunties and Uncles (no classes for students)*	

Second Quarter Tentative Course Content

Week/Date	Topic/Projects/Assessments
6-Moon Festival (no classes)	
7-9 Teacher's Conference (no classes)	
Week 1 (10) (October 13 to 17) 13- Second Quarter Begins 13- Start of New Applicant Enrollment for 2nd Semester 14- Visit of Mother Mary to Classrooms (During the morning prayer) 15- AP Exam Only Registration Deadline 15- Monthly Career Talk - College Prep 17- PSAT/NMSQT Digital Exam	Unit 2: Reproduction of Organisms • Production & Growth of Organisms: Introduction • Modeling Reproduction of an Organism • Factors Affecting Successful Reproduction & Growth • How Traits are Passed: Genetic Information Transfer to Offspring • Genetic Differences (Alleles) & Variation in Inherited Traits
Week 2 (11) (October 20 to 24) 20- Jubilee: Marian Exhibit Opening (After the Monday Assembly) 20- Campus Safety Talk for Students 24- Book Fair (Senior Escape Room)	• Developing & Using Models: Punnett Squares (Day 1) • Developing & Using Models: Punnett Squares (Day 2) • Developing & Using Models: Pedigrees (Day 1) • Developing & Using Models: Pedigrees (Day 2) • Predicting Patterns of Inheritance
Week 3 (12) (October 27 to 31) 29- Grade 11 Career Educational Trip Oct. 31 to Nov. 1- Gr.6 SEL Camp	• Multicellular Organism Reproduction: Sexual vs. Asexual • Transfer of Genetic Information to Offspring • Modeling & Interpreting Data: Sexual Reproduction & Genetic Variation (Day 1)

	• Modeling & Interpreting Data: Sexual Reproduction & Genetic Variation (Day 2) • Genetic & Environmental Factors Affecting Reproduction & Growth in Animals
Week 4 (13) (November 3 to 7) 3- Feast of St. Martin de Porres Mass (integrated during the Monday Assembly) 5- Monthly Career Talk - College Prep	• Animal Behaviors for Sexual Reproduction & Survival of Young • Explaining Environmental & Genetic Factors on Animal Growth • How Plants Reproduce & Grow: Introduction • Plant Reproduction: Sexual & Asexual Methods • Factors Affecting Probability of Successful Plant Reproduction & Growth
Week 5 (14) (November 10 to 14) 14- Health Week 14- VIP-Parent Learning Community	• Argumentation: Specialized Features Affect Plant Reproduction/Growth • Constructing Explanations: Genetic Factors Affect Plant Reproduction/Growth • Constructing Explanations: Local Conditions Affect Plant Reproduction/Growth • Module 1 Review & Quiz • Unit 2 Review (Reproduction)
Week 6 (15) (November 17 to 21) 17- Launching of Mental Health and Anti-Bullying Month 21- Young Shakespeare Play Writing and Performing Contest	• Unit 2 Summative Test (Reproduction) • Energy & Matter: Introduction to Thermal Energy Transfer • What is Temperature & How is it Measured? • Investigations: Energy Transferred, Mass, & Kinetic Energy/Temperature (Day 1) • Investigations: Energy Transferred, Mass, & Kinetic Energy/Temperature (Day 2)
Week 7 (16) (November 24 to 28) 24- Peace Pole Day (Monday	• Developing & Using Models: Energy, Mass, Temperature Relationships

Assembly) 24- Lighting of the Christmas Tree after school (Campus Min/ ECA/ D' Torch Orchestra/ Religious Studies) (Afternoon) 25-27- Pre-Exam Days 27- Thanksgiving Potluck after school for teachers and staff 27- Thanksgiving Family Day 28- Gr. 12 Second Quarter Exam	• How Energy Determines State of Matter • Investigations: Energy, Matter Type, Mass & Kinetic Energy/Temperature (Day 1) • Investigations: Energy, Matter Type, Mass & Kinetic Energy/Temperature (Day 2) • Constructing Explanations: Energy & State of Matter for Substances
Nov. 29 Invitation for All: The Jubilee Pilgrimage to Taipei (Saturday)	
Week 8 (17) (December 1 to 5) 1- First Week of Advent: Lighting of First Advent Candle (During the Monday Assembly) 3- Monthly Career Talk - College Prep 5- Nativity Play (Collaboration with Campus Ministry) 5- Christmas Fair Whole Day	• Direction of Heat Flow: Exploring Energy Movement Between Objects • Developing & Using Models: Heat Flow • Properties of Materials Affecting Energy Transfer • Planning & Carrying out Investigations: Factors Affecting Energy Transfer (Day 1) • Planning & Carrying out Investigations: Factors Affecting Energy Transfer (Day 2)
Week 9 (18) (December 8 to 12) 8- Foundation Day Mass, cake ceremony, and Class Party (half day) 8- Solemnity of the Immaculate Conception 8- Second Week of Advent 10- Gr. 12 Advent Immersion 11 and 12- Second Quarter Exam (half day)	Quarter 2 Exams / Project-Based Assessments
December 13 Invitation for All: Advent Recollection @DIS (Saturday)	
December 15 to January 2 Christmas Break	

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Third Quarter Tentative Course Content

Week/Date	Topic/Projects/Assessments
January 5- Record Day (No Classes for students)	
Week 1 (19) (January 5 to 9) 5- PSAT 8/9 Registration Starts 6- Third Quarter Begins 7- Monthly Career Talk-College Prep 9- New Year Mass at 8:00	Module 2: The Water Cycle • How Water Cycles: Introduction & Energy/Force Drivers • Developing & Using Models of the Water Cycle (Day 1) • Developing & Using Models of the Water Cycle (Day 2) • Water Cycling into & Through Atmosphere: Thermal Energy Transfer
Week 2 (20) (January 12 to 16) 16- Club Orientation & Sign Up	• Processes of the Water Cycle: Evaporation, Condensation, Crystallization • Developing & Using Models: Water Cycle Processes • Water Cycling on Earth's Surface: Precipitation, Runoff • Role of Gravity in Moving Water Downhill • Recognizing Various Water Reservoirs
Week 3 (21) (January 19 to 23) 19-23- Individual Yearbook Photoshoot for Students 19-23- Career Awareness Week 22- Grade 9 Career Educational trip 23- First Club Meeting for 2nd Semester	• Developing & Using Models: Water Cycle on Earth's Surface • Module 2 Review & Quiz
Week 4 (22) (January 26 to 30) 26- Feast Day of St. Thomas Aquinas/Launching of the Catholic Week 26-28- Aquinas Conference: Science and Faith 26-30- Catholic Week Activities 30- DYM Charity Concert	• Investigating Weather & Climate: Introduction • Developing Models: Global Circulation & Its Effects

Week 5 (23) (February 2 to 6) 1-4- WASC Mid-Cycle Visit 4- Monthy Career Talk - College Prep 6-7- SUAO Recollection for MS	• Energy Transfer from Sun to Earth & Atmosphere: Investigation • Developing & Using Models: Unequal Heating of Earth by the Sun • Energy Flow Through Earth & Atmosphere System • Causes of Air & Water Flow: Atmospheric Circulation • Causes of Air & Water Flow: Oceanic Circulation
Week 6 (24) (February 9 to 13) 9- Start of New Applicant Enrollment for 1st Semester for SY2025-26 13- PSAT 8/9 Registration Deadline 13- House Valentine's Mini Fair 13- Chinese New Year Celebration	• Developing & Using Models: Global Patterns of Winds & Ocean Currents • Interactions of Air Masses: Changes in Weather Conditions • Looking for Patterns in Weather & Why Weather Changes • Collecting Data: Interactions of Air Masses & Weather Changes (Day 1) • Collecting Data: Interactions of Air Masses & Weather Changes (Day 2)
February 16-20 Chinese New Year Holiday	
Week 7 (26) (February 23 to 26) 23-26- IOWA Assessments 23- Student Council Application 24-26- Pre-Exam Days	• Factors Determining Regional Climates: Introduction • Developing & Using Models: Unequal Heating by Sun & Latitude • Developing & Using Models: Altitude & Atmospheric/Oceanic Circulation • Determining Regional Climates • Module 3 Review & Quiz
February 27 Memorial Day Holiday (no classes)	
Week 8 (27) (March 2 to 6) 3- Monthly Career Talk - College Prep 6- PSAT 8/9 System Installation and Practice Test	• Unit 3 Review (Energy in the Atmosphere) • Unit 3 Summative Test (Energy in the Atmosphere) • *Buffer/Catch-up Days (3 days)*

Week 9 (28) (March 9 to 13) 13 and 16- Third Quarter Exam (half day)	Quarter 3 Exams / Project-Based Assessments

Fourth Quarter Tentative Course Content

Week/Date	Topic/Projects/Assessments
Week 1 (29) (March 16 to 20) 16- Third Quarter Exam (half day) 16-20- Faculty & Staff Yearbook Photo 17- Fourth Quarter Begins 18-21- EARCOS Teachers' Conference 19- Lectio Divina and Feast of St. Joseph 20- Parents Learning Community Meeting 20- Kindilympics 20-House Movie Night and Club Fair	Module 1: Human Impact on the Environment • Human Activities Impact Earth's Land, Water, Atmosphere, Climate: Introduction • Minimizing Human Impact on Land: Exploring Activities • Analyzing Data: Human Impact on Land Environments • Developing & Using Models: Human-Caused Land Changes • Designing Solutions: Minimizing Human Impact on Land
March 21 (Saturday) Spring Fair	
Week 2 (30) (March 23 to 27) 23-27 Student Leaders Applicant Interviews 26- Annual Visit to World Religion Museum Gr. 11 27- Lower School Readers Theatre	• Monitoring & Minimizing Human Impact on Water: Exploring Activities • Constructing Explanations: Human-Caused Water Changes • Using Models: Minimizing Human Impact on Water • Minimizing Human Impact on Atmosphere: Why it's Necessary • Constructing Explanations: Human-Caused Air Pollution
March 30 to April 6 Easter/Spring Break	
Week 3 (31) (April 7 to 10) 7- Spring University Fair 9- Easter Mass 9- Easter Egg Hunt for Lower School Students	• Constructing Explanations: Minimizing Air Pollution • Human Activities Causing Rise in Global Temperatures: Introduction

	• Environmental Impact of Global Warming: Exploration • Asking Questions & Constructing Explanations: Human-Caused Climate Changes (Day 1) • Asking Questions & Constructing Explanations: Human-Caused Climate Changes (Day 2)
Week 4 (32) (April 13 to 17) 13 Laudato Si Month Launching (During the Monday Assembly) 13-30 Laudato Si Month Activities 13-17- Class Photo Taking 17- AP Chinese/Japanese Practice Test	• Unit 4 Review (Human Impact) • Unit 4 Summative Test (Human Impact) • *Buffer/Catch-up Days (3 days)*
Week 5 (33) (April 20 to 24) 20-24 Cultural Awareness Week / Art Exhibit / Earth Week 24- Music Recital 20-24 Student Council Campaign 20-24 AP Mock Exams	• Review: Life Science - Cells & Body Systems (Key concepts & objectives) • Review: Life Science - Reproduction of Organisms (Key concepts & objectives) • Review: Physical Science - Energy & Matter (Key concepts & objectives) • Review: Earth Science - Water Cycle (Key concepts & objectives) • Review: Earth Science - Weather & Climate (Key concepts & objectives)
Week 6 (34) (April 27 to 30) 27- Student Council Elections 27-30 Senior Project Presentations 28-30 Pre-Exam Days	• Review: Earth Science - Human Impact on Environment (Key concepts & objectives) • Review: Scientific Inquiry & Process Skills (Designing, Observing, Measuring) • Review: Data Analysis & Interpretation (Graphs, Conclusions) • Review: Communication of Scientific Ideas (Reports, Presentations) • Review: Lab Safety & Procedures
May 1: Labor Day Public Holiday	

Week 7 (35) (May 4 to 8) 4- May Crowning & Mother's Day Celebration (During the Monday Assembly) 4-14 Final Exams (K, Gr. 5, 8, & 12 Only) 4-15 AP Exams	• Application: Interdisciplinary Science Challenge (Connecting concepts across units) • Science in the News: Analyzing current scientific discoveries/issues • Career Exploration: Fields in Science & Engineering
Week 8 (36) (May 11 to 15) 13 and 14- Fourth Quarter Exam—Undergraduate (half day) 14-16 Student Leaders Retreat Days	Quarter 4 Exams / Project-Based Assessments
May 15 Record Day (No Classes for students) *Final Deliberation for Graduating/Promoting Classes*	
Week 9 (37) (May 18 to 22) 18- Gr. 5 Recollection & Mass 19- Gr. 8 Recollection & Mass 20- Gr. 12 Recollection 20- Baccalaureate Mass (Whole School) 18-21 WIDA Testing 19- Lower School Sports Day / Gr. 6 & 7 School Field Trip 19- Gr. 9 - 11 - "Senior Success Forum: Inspiring the Next Generation" 19-22 Student Clearance Days 21- Middle & High School Sports Day 21- High School Field Trip 22- House Culminating Activity 20-22 Final Deliberation for Non-Graduating Classes 22- Student Leaders One Day Recollection / Turn Over Ceremony	School Activities & Course Review
Week 10 (38) (May 25 to 29) 25- Kindergarten Graduation/Gr. 5 Promotion 26- LS Field Trip 26- Gr. 8 Graduation and Gr. 12 Graduation 27- Pre-Kindergarten & Gr. 1 - 4, 6 & 7, 9-11 Recognition Last Day of School, Report Card 28- Distribution, & Class Party (half day) 29- Last day for Teachers/Staff Meeting	School Activities & Course Review