



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	4
Teacher	Mr. Ruttan
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COURSE DESCRIPTION: The Science course for Fourth Grade has been developed to reflect real world situations through the use of hands-on opportunities for learning. Learning science at this stage is not necessarily about “right answers” but rather the process of asking questions, solving problems, making models and making decisions based on the information gathered. The aim of the course is to lay a helpful foundation for the correct interpretation of results based upon scientific observations. Students gain a deeper understanding of scientific concepts as they engage in student-directed and multimodal learning. Lessons immerse students in the wonders of their world, encouraging them to think like scientists and helping them build STEM skills. Hands-on activities and experiments motivate students, giving them a deeper understanding of scientific concepts. Encourage student-directed learning through an integrated blend of print and multimedia components, including simulations and videos, to enhance understanding of critical scientific concepts.

COURSE OBJECTIVES: Students will learn how to use an engineering design process to help them find a good solution to problems. Students will learn how to learn more about problems by asking questions and doing research. Students will learn how to self-assess the efficacy of their models and redo or adjust them as necessary based on new information acquired.

Additionally, the students will be able to meet the following standards:

3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

3-5-ETS1-3. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.



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4-LS1-1. Construct an argument that plants and animals have that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

4-LS1-2. Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.

4-PS4-2. Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen.

4-PS3-1. Use evidence to construct an explanation relating the speed of an object to the energy of that object.

4-PS3-2: Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.

4-PS3-3. Ask questions and predict outcomes about the changes in energy that occur when objects collide.

4-PS3-4: Energy Conversion Device - Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.

4-PS4-1. Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move.

4-PS4-3. Generate and compare multiple solutions that use patterns to transfer information.

3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

4-ESS1-1. Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time.

4-ESS2-1. Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.

4-ESS2-2. Analyze and interpret data from maps to describe patterns of Earth's features.



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4-ESS3-1. Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.

4-ESS3-2: Generate and compare multiple solutions to reduce the impacts of natural earth processes on humans.

4-PS3-4: Energy Conversion Device · Apply scientific ideas to design, test, and refine a device that converts energy from one form to another

3-5-ETS1-2: Generate and compare multiple solutions to a problem based on how well they meet the criteria and constraints of the design problem.

PRIMARY TEXTBOOKS AND OTHER RESOURCES:

❖ TEXT: DiSpezio, M., Frank, M., et, al. (2021) *Into Science Grade 4*. Houghton Mifflin Harcourt Publishing Company. Florida, USA.

❖ LINKS:

1. Our school website: <http://www.dishs.tp.edu.tw/>
2. Publishers website: <https://www.hmhco.com/programs/hmh-into-science>

GRADING SYSTEM/ASSESSMENT:

The quarterly grade will be awarded for all student work based on the following criteria:

- 1) **Journals, Class participation, Homework, Quizzes and Tests** (30% of quarterly grade)
- 2) **Major Projects and Assignments** (30% of quarterly grade)
- 3) **Quarterly Exams** (30% of quarterly grade)
- 4) **Deportment/D'Torch** (10% of quarterly grade)

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.

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) <u>4 days of class</u> 12-General Assembly at the Gymnasium 15-Opening Mass & Assumption of Our Lady	Orientation and getting-to-know-each-other activities.
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	Unit 1 Engineering and Technology Lesson 1 Engineering Design
Week 3 (August 25 to 29) 27- High School Talk - "Kickstart Your Success: Winning Mindsets for a Great School Year" 29- First Club Meeting	Unit 1 Engineering and Technology Lesson 1 Engineering Design
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	Unit 1 Review Unit 2 Plant and Animal Structure and Function Lesson 1 Plant Parts and How They Function
Week 5 (September 8 to 12) 8- Holy Mass: Nativity of the Blessed Virgin Mary & VIP Induction 10- House Mini Games Start	Unit 2 Plant and Animal Structure and Function Lesson 1 Plant Parts and How They Function
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	Unit 2 Plant and Animal Structure and Function Lesson 1 Plant Parts and How They Function Unit 2 Plant and Animal Structure and Function Lesson 2 Animal Parts and How They Function
Week 7 (September 22 to 26) 22- Celebration of the International Day of Peace-Peace	Unit 2 Plant and Animal Structure and Function Lesson 2 Animal Parts and How They Function



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<p>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</p>	
<p>Week 8 (September 29 to October 3) 29- Launching of the Month of the Holy Rosary (During the Monday Assembly) Oct. 1-2- First Quarter Exam (half day)</p>	<p>Unit 2 Plant and Animal Structure and Function Lesson 2 Animal Parts and How They Function Quarter review and reflection</p> <p>Unit 1 and 2 Review Quarter 1 Exams</p>
<p><i>Oct. 3-DIS Teachers and Staff Recognition Day/ Record Day Recollection for Aunties and Uncles (no classes for students)</i></p>	

Second Quarter Tentative Course Content

Week/Date	Topic/Projects/Assessments
<i>6-Moon Festival (no classes)</i>	
<i>7-9 Teacher's Conference (no classes)</i>	
<p>Week 1 (11) (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</p>	<p>Unit 2 Plant and Animal Structure and Function Lesson 3 How Senses Work</p>
<p>Week 2 (12) (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)</p>	<p>Unit 2 Plant and Animal Structure and Function Lesson 3 How Senses Work</p>
<p>Week 3 (13) (October 27 to 31) 29- Grade 11 Career Educational Trip Oct. 31 to Nov. 1- Gr.6 SEL Camp</p>	<p>Unit 2 Plant and Animal Structure and Function Lesson 3 How Senses Work Unit 2 Review</p>
<p>Week 4 (14) (November 3 to 7) 3- Feast of St. Martin de Porres Mass (integrated during the Monday Assembly) 5- Monthly Career Talk - College Prep</p>	<p>Unit 3 Energy and Communication Lesson 1 Energy Transfer and Transformation</p>



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Week 5 (15) (November 10 to 14) 14- Health Week 14- VIP-Parent Learning Community	Unit 3 Energy and Communication Lesson 1 Energy Transfer and Transformation
Week 6 (16) (November 17 to 21) 17- Launching of Mental Health and Anti-Bullying Month 21- Young Shakespeare Play Writing and Performing Contest	Unit 3 Energy and Communication Lesson 2 Collisions
Week 7 (17) (November 24 to 28) 24- Peace Pole Day (Monday 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	Unit 3 Energy and Communication Lesson 2 Collisions
Nov. 29 Invitation for All: The Jubilee Pilgrimage to Taipei (Saturday)	
Week 8 (18) (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	Unit 3 Energy and Communication Lesson 3 Collisions
Week 9 (19) (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 Review and Reflection Quarter 2 Exams
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
<i>January 5- Record Day (No Classes for students)</i>	
Week 1 (20) (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	Unit 3 Energy and Communication Collisions
Week 2 (21) (January 12 to 16) 16- Club Orientation & Sign Up	Unit 3 Energy and Communication Collisions and Waves
Week 3 (22) (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	Unit 3 Energy and Communication Waves
Week 4 (23) (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	Unit 3 Energy and Communication Waves
Week 5 (24) (February 2 to 6) 1-4- WASC Mid-Cycle Visit 4- Monthly Career Talk - College Prep 6-7- SUA0 Recollection for MS	Unit 3 Energy and Communication Waves
Week 6 (25) (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	Unit 3 Energy and Communication Information Transfer
<i>February 16-20 Chinese New Year Holiday</i>	
Week 7 (26) (February 23 to 26) 23-26- IOWA Assessments 23- Student Council Application	Unit 3 Energy and Communication Information Transfer



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24-26- Pre-Exam Days	
<i>February 27 Memorial Day Holiday (no classes)</i>	
Week 8 (27) (March 2 to 6) 3- Monthly Career Talk - College Prep 6- PSAT 8/9 System Installation and Practice Test	Unit 3 Energy and Communication Information Transfer
Week 9 (28) (March 9 to 13) 13 and 16- Third Quarter Exam (half day)	Quarter Review and Reflection Quarter 3 Exams

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	Unit 4 Shaping Landscapes Lesson 1 Factors That Shape Earth's Surface
<i>March 21 (Saturday) Spring Fair</i>	
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	Unit 4 Shaping Landscapes Lesson 1 Factors That Shape Earth's Surface
<i>March 30 to April 6 Easter/Spring Break</i>	
Week 3 (31) (April 7 to 10) 7- Spring University Fair 9- Easter Mass 9- Easter Egg Hunt for Lower	Unit 4 Shaping Landscapes Lesson 1 Factors That Shape Earth's Surface



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School Students	
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 Shaping Landscapes Lesson 2 Fast and Slow Changes
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	Unit 4 Shaping Landscapes Lesson 2 Fast and Slow Changes
Week 6 (34) (April 27 to 30) 27- Student Council Elections 27-30 Senior Project Presentations 28-30 Pre-Exam Days	Unit 4 Shaping Landscapes Lesson 2 Fast and Slow Changes
<i>May 1: Labor Day Public Holiday</i>	
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	Unit 4 Shaping Landscapes Lesson 3 Rock Layers Record Landform Changes
Week 8 (36) (May 11 to 15) 13 and 14- Fourth Quarter Exam—Undergraduate (half day) 14-16 Student Leaders Retreat Days	Unit 4 Shaping Landscapes Lesson 3 Rock Layers Record Landform Changes Q4 Exams
<i>May 15 Record Day (No Classes for students) Final Deliberation for Graduating/Promoting Classes</i>	
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	Activities and Review



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<p>19- Gr. 9 - 11 - "Senior Success Forum: Inspiring the Next Generation"</p> <p>19-22 Student Clearance Days</p> <p>21- Middle & High School Sports Day</p> <p>21- High School Field Trip</p> <p>22- House Culminating Activity</p> <p>20-22 Final Deliberation for Non-Graduating Classes</p> <p>22- Student Leaders One Day</p> <p>Recollection / Turn Over Ceremony</p>	
<p>Week 10 (38) (May 25 to 29)</p> <p>25- Kindergarten Graduation/Gr. 5 Promotion</p> <p>26- LS Field Trip</p> <p>26- Gr. 8 Graduation and Gr. 12 Graduation</p> <p>27- Pre-Kindergarten & Gr. 1 - 4, 6 & 7, 9-11 Recognition</p> <p>Last Day of School, Report Card</p> <p>28- Distribution, & Class Party (half day)</p> <p>29- Last day for Teachers/Staff Meeting</p>	<p>Activities and Review</p>

"Kindling the Light of Faith, Hope, and Love: The Legacy of St. Dominic de Guzmán"