CURRICULUM OVERVIEW

WATER: A MOST ESSENTIAL RESOURCE

2021–2022
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VISION
The vision of the U.S. Academic Decathlon® is to provide all students the opportunity to excel academically through team competition.

MISSION
The mission of the U.S. Academic Decathlon® is to promote learning and academic excellence among students of varying achievement levels by developing and providing multidisciplinary academic competitions using U.S. Academic Decathlon®-based curricula.

CORE VALUES
As a premier national scholastic competition for high school students, the United States Academic Decathlon® believes in:

- The academic growth of students
- Challenging multidisciplinary learning
- Teamwork as a means to achieve self-knowledge and life skills
- Providing equal opportunities for students of different achievement levels
- The importance of inclusivity and diversity to learning and the human experience
- High standards of honesty and integrity
- Transparency in our relations and interactions with all of our stakeholders
- Excellence in our programs, services and activities
- Respect for diverse points of view
WHAT IS THE UNITED STATES ACADEMIC DECATHLON®?

OVERVIEW
The United States Academic Decathlon®, the premiere national scholastic competition for high school students, was created to provide opportunities for students to experience the challenges of rigorous team and individual academic competition. Each student competes in ten events: Art, Economics, Essay, Interview, Literature, Mathematics, Music, Science, Social Science, and Speech. Students compose an essay based on a prompt whose central theme incorporates information relating to the current curriculum. Students also perform a prepared speech and impromptu speech and participate in an interview before a panel of volunteer judges from the local community.

The culmination of the competition is the exciting Super Quiz™ relay in which students have the opportunity to demonstrate their mastery of the broad range of the U.S. Academic Decathlon’s interdisciplinary curriculum by answering questions from seven different subject areas: art, economics, literature, mathematics, music, science, and social science. The Super Quiz is the only part of the actual testing that is open to the public, and it is inevitably one of the most memorable and exciting parts of the Academic Decathlon competition.

Gold, silver, and bronze medals are awarded for individual events and total scores. Overall individual winners are recognized as are champion teams. The broad base of awards allows for major recognition of academic accomplishment. Teams advance through local, regional, and state levels of competition. The state champions compete at the national finals. The 2022 Academic Decathlon National Finals will take place from April 21–April 23, in Pittsburgh, Pennsylvania.

PROGRAM DESCRIPTION
The United States Academic Decathlon emphasizes the personal and academic growth of each student who, by meeting the challenges with honesty and integrity, can reap the rewards of greater self-knowledge and self-confidence for the future.

The ten-event academic program strives to foster a greater respect for knowledge, to promote wholesome inter-school academic competition, and to further develop student communication skills. A unique aspect of the U.S. Academic Decathlon is that it is designed to include students from all academic abilities and achievement levels. Each nine-member team consists of three Honor students (3.80 – 4.00 GPA), three Scholastic students (3.20 – 3.799 GPA), and three Varsity students (0.00 – 3.199 GPA). Each team member competes in all ten events against other students in their GPA division. Overall team scores are calculated using the top two individual scores from each division.

HISTORY
The U.S. Academic Decathlon was first created by Dr. Robert Peterson, former Superintendent of Schools in Orange County, California. Firmly believing that everyone’s learning potential can be maximized through competitive challenge, Dr. Peterson set in motion the contest that has since come to be recognized as the most prestigious high school academic team competition in the United States. The program spread rapidly due to the success and excitement it engendered. The United States Academic Decathlon was founded in 1981.
THE UNITED STATES ACADEMIC DECATHLON® AND CURRICULUM STANDARDS

OVERVIEW
The United States Academic Decathlon’s curriculum is an interdisciplinary curriculum in which a selected theme is integrated across six different subject areas: art, economics, literature, music, science, and social science. Students also study mathematics and participate in essay-writing, speech, and interview events. The theme for the 2021–2022 U.S. Academic Decathlon® (USAD) curriculum is Water: A Most Essential Resource. While in most subjects the majority of the topics relate to the overall curricular theme, some topics that cover fundamentals may also be included to encourage a thorough understanding of the subject area as a whole. The USAD mathematics curriculum is unrelated to the theme and focuses on standard high school mathematics topics.

This document provides a summary of the Common Core Standards for high school Mathematics and Reading that are addressed in USAD’s 2021–2022 curriculum as well as the national content standards met by USAD’s 2021–2022 curriculum.

THE UNITED STATES ACADEMIC DECATHLON’S CURRICULUM AND THE COMMON CORE STANDARDS
The Common Core State Standards Initiative is a state-led effort to establish a common set of educational standards for English language arts and mathematics. The standards aim to ensure that students graduating from high school are prepared to attend college or enter the workforce. The Common Core Standards were developed by states and content experts under the guidance of governors and state education chiefs, and they have been adopted by forty-one states, the District of Columbia, four territories, and the Department of Defense Education Activity (DoDEA).

The United States Academic Decathlon® and the Common Core Standards for High School Mathematics
The Common Core High School Mathematics Standards consist of six broad categories. The U.S. Academic Decathlon’s 2021–2022 mathematics curriculum addresses aspects of five of these six categories: Number and Quantity, Algebra, Functions, Modeling, Statistics, and Probability.

Mathematical Practice Standards Addressed
In addition to the content standards, the Common Core High School Mathematics standards emphasize eight practice standards. These standards are meant to address the manner in which students approach and reason during their learning of mathematics. USAD’s 2021–22 Mathematics Curriculum addresses seven of these eight practice standards:

- CCSS.Math.Practice.MP1: Make sense of problems and persevere in solving them
- CCSS.Math.Practice.MP2: Reason abstractly and quantitatively
- CCSS.Math.Practice.MP4: Model with mathematics
- CCSS.Math.Practice.MP5: Use appropriate tools strategically
- CCSS.Math.Practice.MP6: Attend to precision
- CCSS.Math.Practice.MP7: Look for and make use of structure
- CCSS.Math.Practice.MP8: Look for and express regularity in repeated reasoning

The United States Academic Decathlon and the Common Core Reading Standards for Literature
USAD’s 2021–22 literature curriculum in concert with other Academic Decathlon subject areas addresses aspects of all ten of the Common Core College and Career Readiness Anchor Standards for Reading for students in grades K–12. USAD’s 2021–22 literature curriculum in concert with other Academic Decathlon subject areas addresses aspects of all ten Common Core Reading Standards for Literature for students in grades 9–10. USAD’s 2021–22 literature curriculum in concert with other Academic Decathlon subject areas addresses aspects of seven Common Core Reading Standards for Literature for students in grades 11–12.

THE UNITED STATES ACADEMIC DECATHLON CURRICULUM AND NATIONAL CONTENT STANDARDS
USAD’s 2021–2022 curriculum addresses aspects of the following:

- All twenty of the Voluntary National Content Standards in Economics
- Eleven of the twelve Curriculum and Content Area Standards for English Language Arts
- Four of five content areas of the high school mathematics curriculum delineated by the National Council of Teachers of Mathematics (NCTM) and provides students with opportunities to utilize all four reasoning habits delineated by the NCTM
- Four National Core Arts Standards for Music
- Four National Core Arts Standards for Visual Arts
- Fourteen Life Science Disciplinary Core Ideas, nine Earth and Space Science Disciplinary Core Ideas, and six Physical Science Disciplinary Core Ideas for Grades 9–12 and all seven crosscutting concepts delineated by the Next Generation Science Standards
- Nine of ten overarching curricular themes outlined by the National Council for Social Studies (NCSS), five areas of focus delineated by the National Content Standards for Geography, and nine historical eras of focus delineated by the National Content Standards for World History
CURRICULUM MATERIALS

U.S. ACADEMIC DECATHLON STUDY GUIDE:
Summarizes the curriculum for the entire year. Includes detailed outlines for Art, Economics, Literature, Mathematics, Music, Science, and Social Science. Also includes rules and guidelines for the Speech, Interview, and Essay events. Available printed, as a PDF for download, or as an eBook. *Available May 15*

RESOURCE GUIDES:
Resource Guides will be provided in Art, Economics, Literature, Mathematics, Music, Science, and Social Science. These Resource Guides will provide teams with a thorough review and academic treatment of all the topics noted in the subject area outlines for these subjects. All Academic Decathlon competition test items will be derived from the information and concepts presented in the Resource Guides, as well as the selected literature, artworks, and musical works. The Resource Guides offer an essential resource that will assist students in their mastery of the topics and aid in their preparation for the competition tests. Available printed, as a PDF for download, or as an eBook. *Available May 15*

PRACTICE TEST BOOKLET:
The PTB is the most important coaching tool for understanding Academic Decathlon tests. Written by the official USAD test writers in each subject area. Contains eight tests, sample essay prompts, and speech and interview rules and rubrics. The PTB may be reproduced at the school level only. Includes accompanying CD for art questions based on artwork images, music questions based on listening excerpts and a PowerPoint® Slideshow for the Super Quiz™ relay. The PTB is also available as a PDF and the CD as an mp3 file for electronic download. *Available May 15*

ART REPRODUCTIONS BOOKLET:
Contains full-color reproductions of the 18 selected artworks for this year’s art curriculum. Available printed, as a PDF for download, or as an eBook. *Available May 15*

MUSIC CD:
This year’s music CD, The Intersections of Music and Water, is a 14-track CD produced exclusively for the U.S. Academic Decathlon. The Music CD is an essential companion piece to this year’s music curriculum. *Available May 15*
CURRICULUM PACKAGE

10 Academic Decathlon Study Guides
10 Art, Economics, Literature, Mathematics, Music, Science, and Social Science Resource Guides
10 Art Reproductions Booklets
10 Music CDs
1 Practice Test Booklet (with mp3)

STUDENT STUDY AIDS

STUDENT EXERCISE BOOKS:
Available in Art, Economics, Literature, Mathematics, Music, Science, and Social Science, the Student Exercise Books provide a student-friendly synthesis of the material presented in the Resource Guides and offer students a chance to test and reinforce their knowledge of the curriculum through a variety of exercises and activities. The Student Exercise Books will include section overviews as well as short quizzes, true/false questions, fill-in-the-blank items, etc., to assist students in their mastery of the curriculum. Available printed or as a PDF for download.
Available June 15
ADDITIONAL STUDY & PRACTICE TEST MATERIALS

THIS YEAR’S SELECTED LITERATURE:
This year’s selected literature is *The Sea-Wolf* by Jack London. The U.S. Academic Decathlon has arranged for a special discount from the publisher. Students will also study selected shorter works of literature that relate to the curricular theme. Available May 15

ESSAY RESOURCE GUIDE:
The Essay Resource Guide provides Academic Decathletes with all the information they need to know about USAD’s essay event. The Essay Resource Guide includes a thorough explication of the essay scoring rubric and offers students techniques, strategies, tips, and guided activities—including detailed analyses of sample essays—to help them write an effective, high-scoring essay. Available August 1

PRACTICE LEVEL TESTS:
Includes a series of three tests made up of 150 questions in each subject area. Tests can be used consecutively as a study tool since they are constructed at easy, medium, and hard difficulty levels, allowing for gradual mastery of the curriculum. Available August 1

PRACTICE SPECIALTY TESTS:
Includes two 100-item tests in art, literature, music, science, and social science, focused in depth on a specific portion of the subject outlines. Tests consist of a variety of question styles for students to gain knowledge on focused topics. Also available as a PDF for electronic download. Available August 1

4,000 SUBJECT AREA FLASH CARDS:
Companion to the Resource Guides and Online Practice Tests. 600 questions each in art, music, literature, social science, science, and economics; 400 in mathematics. Questions and answers are referenced directly to the Resource Guides to reinforce learning and strengthen fast answer skills. Also available as a PDF for electronic download. Available August 1

NOTEBOOK DIVIDERS (10 SETS):
Crammed with pertinent information, this set of 10 tabbed notebook dividers helps students stay organized. Includes artist and composer bios, lists of key terms and definitions, and other information. Available May 15

PRACTICE COMBO QUIZZES:
Contains four quizzes with a total of 200 items in each subject area. Quizzes focus on topics in sequential order of the subject outlines. Quizzes include a combination of fill-in-the-blank items, short-question and answer format, multiple-choice items, and matching to help students master the curriculum with a variety of question styles. Also available as a PDF for electronic download. Available August 1
ESSAY EXAM BOOKLET:
Contains 20 essay tests with a total of 60 essay prompts, which focus on the following six subject areas: art, economics, literature, music, science, and social science. The essay rubric used at the national competition is included in the booklet. Great for essay writing practice. Also available as a PDF for electronic download.
Available June 15

LITERATURE NOVEL QUizzes:
Test your knowledge of Jack London's The Sea-Wolf. Quizzes will include a combination of fill-in-the-blank items, short question and answer format, multiple-choice items, and matching to help students master the chapters in this year’s selected novel. Also available as a PDF for electronic download.
Available June 15

IMPROMPTU TOPIC BOOKLET:
Contains 150 impromptu speech topics, including a variety of sample approaches that may be encountered in the United States Academic Decathlon competition. Great for speech practice and impromptu preparation. Also available as a PDF for electronic download.
Available June 15

MUSIC LISTENING QUIZZES:
Includes 10 quizzes with multiple-choice items that focus on a 30-second musical excerpt from the United States Academic Decathlon Music CD: The Intersections of Music and Water. Quizzes will be similar to what students will encounter on the listening portion of the music competition tests to reinforce mastery of the Music CD. Includes accompanying mp3 file, which is available for electronic download.
Available June 15
THE ONLINE MARKET:

High-quality practice exams for students to test themselves with over 4,000 multiple-choice questions. Questions are written in the format of the Round 1–4 exams and USAD’s Level Exams. Tests are broken down into three categories that follow the chunking theory of memory stages: Automatic Stage Quizzes, Conceptual Stage Exams, and Comprehensive Stage Exams.

- **Automatic Stage Quizzes**: Focus on small chunks of information and usually consist of questions that are level 1 type questions. *Available August 15*
- **Conceptual Stage Exams**: Cover full sections of the guides and ask higher-level questions, building on the information asked in the Automatic Stage Quizzes. *Available September 1*
- **Comprehensive Stage Exams**: These are a combination of the Automatic Stage-style questions and Conceptual Stage-style questions and cover the entire subject Resource Guide. *Available October 1*

Teams must be members of the USAD Testing and Training Center to purchase the product at a discounted price. Coaches will also have access to the exams and will be able to choose if they want their students to have access to the questions, or if they want the PDF downloadable version only. Teams who choose not to access the training center will have access to the exams in PDF format at a higher price.

THE PRACTICE TEST PACKAGES

**THE PRACTICE TEST PACKAGE:**

A complete set of practice materials. The Practice Test Package has 8,000 test questions that are written and reviewed by United States Academic Decathlon®-contracted writers and reviewers. The Practice Test Package contains thousands of test questions to reinforce learning and test-taking skills. The topical breakdown of the test items in the Practice Test Package is in accordance with the percentages noted in the Academic Decathlon Study Guide outlines.

**THE PRACTICE TEST PACKAGE INCLUDES:**

- **Online Testing and Training Center**: Train for Academic Decathlon team competition through a unique combination of individual study sessions, direct challenges, and national scrimmages featuring more than 7,000 questions in art, economics, literature, mathematics, music, science, and social science categories. A powerful Academic Decathlon resource offering daily preparation to match intellects with students from around the country through team competitions. *Available August 1.*
- **Practice Level Tests**: Includes a series of three tests made up of 150 questions in each subject area. Tests can be used consecutively as a study tool since they are constructed at easy, medium, and hard difficulty levels, allowing for gradual mastery of the curriculum. *Available August 1.*
- **Music Listening Quizzes**: Includes 10 quizzes with multiple-choice items that focus on a 30-second musical excerpt from the United States Academic Decathlon Music CD: *The Intersections of Music and Water*. Quizzes will be similar to what students will encounter on the listening portion of the music competition tests to reinforce mastery of the Music CD. Includes accompanying mp3 file which is available for electronic download. *Available June 15.*
ONLINE PRACTICE TESTS: Standard Practice Tests and Subject Assortment Tests
The online test system uses the same interface as the United States Academic Decathlon® Online National Competition. Get up to 35 subscriptions for one low price. The system features additional bonuses for the coach and student, which include the ability to:

- Build tests to assist in the team selection process
- Administer tests in a group setting
- Set up competitions between teams and states
- Take an unlimited number of on-screen USAD-format tests, randomly created in each subject area
- Access the test program from any Internet-connected handheld computer or cell phone with full web browser
- Access test reports in seven different formats
- Students can access the online practice test program with their assigned username and password.

Online Practice Tests—1300 test items: 200 each in art, economics, literature, music, science, and social science; 100 mathematics questions. Tests will focus on each subject area, section-by-section of the Study Guide outlines, to reinforce mastery of the material. Available August 1.

Online Subject Assortment Tests—700 test items. This includes fourteen 50-item tests that consist of an assortment of questions from each of the seven objective subject areas. Available August 1.

Online Bonus Questions—1400 multiple-choice questions that go beyond the scope of the Resource Guides for additional mastery of the curriculum topics. Available August 1.

Academic Decathlon Study Features—
- Online Flash Cards and Online Quick Quiz: Test your knowledge by subject category.
- Online Scrimmage: Participate in national scrimmages.
- Head-to-Head Challenge: Challenge another current user to a direct competition.
- Online Puzzle Maker: Access to this software program allows you to quickly create word search and crossword puzzles using word lists and clues directly from the United States Academic Decathlon curriculum.

United States Academic Decathlon Online Community Features—
- User Profile
- List your school and graduation year
- Choose a photo
- My Statistics
- Track your online study results and rankings
- Recent News and Videos
- Access state and national USAD news and information
ART
THE CONFLUENCES OF WATER AND ART

I. ART FUNDAMENTALS ................................................................. 20%
   A. Introduction to Art History
   B. Elements of Art

II. EAST ASIAN INK WASH PAINTING .............................................. 14%
   A. Introduction to Ink Wash Technique
   B. The Rise of Chinese Ink Painting
   C. Art of the Yuan Dynasty, 1279–1368
      i. Fishermen, after Jing Hao, Wu Zhen, c.1341
   D. Japanese Zen Painting
      i. Gibbons in a Landscape, Sesson Shūkei, c.1570
   E. Korean Ink Painting Traditions
      i. Orchid and Rock, Kim Ŭng-wŏn, Late Nineteenth–Early Twentieth Century
   F. Contemporary Korean Ink Painting

III. THE WATERCOLOR IN WESTERN ART ......................................... 22%
   A. The Development of Watercolor as a Medium in Western Art
      i. The Large Piece of Turf, Albrecht Dürer, 1503
   B. Watercolor and Natural History Illustration
      i. Golden Eagle (Aquila chrystaetos) Study for Havell, pl. 181, John James Audubon, 1833
   C. British Watercolor and Children’s Book Illustration
      i. Two gentleman rabbits in the snow, Beatrix Potter, c.1890
   D. The Rise of Nineteenth-Century American Watercolor
      i. The Gulf Stream, Winslow Homer, probably 1899 (dated by the artist “1889”)
      ii. Haskell’s House, Edward Hopper, 1924

IV. WATER AS SUBJECT ................................................................. 22%
   A. Water as Subject Matter and Its Social and Political Implications
      i. Under the Wave off Kanagawa, also known as The Great Wave, Katsushika Hokusai, c.1830/33
      ii. Watson and the Shark, John Singleton Copley, 1778
      iii. Niagara, George Inness, 1889
      iv. Black Lava Bridge, Hana Coast No. 1, Georgia O’Keeffe, 1939
      v. Struggle Series No. 10 – Washington Crossing the Delaware, Jacob Lawrence, 1954
V. WATER IN ARCHITECTURE, SCULPTURE, AND ENVIRONMENTAL ART ............................................. 22%

A. Water as a Feature in Modern Art and Architecture
   i. Meeting of the Waters, St. Louis, Missouri, Carl Milles, 1931–39
   ii. Fallingwater, Mill Run, Pennsylvania, Frank Lloyd Wright, 1935
   iii. Mami Wata Figure, Igbo Ethnic Group, 1950s
   iv. Spiral Jetty, Great Salt Lake, Utah, Robert Smithson, 1970
   v. Ice Watch, London, England, Olafur Eliasson and Minik Rosing, 2018
ECONOMICS
AN INTRODUCTION TO ECONOMICS AND THE ECONOMICS OF WATER

I. FUNDAMENTAL ECONOMIC CONCEPTS ........................................ 10%
   A. Basic Assumptions of Economics
   B. Models and Economic Theory
   C. Positive and Normative Economics
   D. Efficiency as a Goal
   E. Microeconomics and Macroeconomics

II. MICROECONOMICS ................................................................. 40%
   A. Perfectly Competitive Markets
   B. Applications of the Competitive Market Model
   C. Evaluating Government Policy: The Impact of Price Controls and Taxes
   D. International Trade
   E. The Profit Motive and the Behavior of Firms
   F. Imperfect Competition
   G. Creative Destruction: The Profit Motive and the Sources of Economic Change
   H. Market Failures
   I. Institutions, Organizations, and Government

III. MACROECONOMICS .............................................................. 30%
   A. Macroeconomic Issues
   B. Macroeconomic Measurement
   C. Economic Growth, Productivity, and Living Standards
   D. Savings, Investment, and the Financial System
   E. Money and Prices in the Long Run
   F. Short-Run Economic Fluctuations

IV. THE ECONOMICS OF WATER. .................................................... 20%
   A. The Basics
   B. Supply and Demand
   C. Water and Agriculture
   D. Water Property Rights
   E. Water Quantity Markets
   F. Water Pollution
   G. Drinking Water
   H. Water Quality Markets
LITERATURE
WATER: AN ENDURING ELEMENT IN LITERATURE

I. CRITICAL READING............................................. 15%
   A. Purpose and Main Idea
   B. Structure
   C. Restatement of Information
   D. Genres and their Characteristics
   E. Language and Tone
   F. Grammar and Syntax
   G. Vocabulary in Context
   H. Diction

II. WATER, WATER EVERYWHERE: A PERSISTENT THEME............. 10%
   A. Historical Overview: The Stories of Water
   B. Recurrent Themes and Symbols: The Meaning of Water

III. JACK LONDON’S THE SEA-WOLF.......................... 40%
   A. Genre: A Historical Overview of Nautical Fiction
   B. A Superb Meteor: The Life and Adventures of Jack London
   C. Plot and Structure: Summarizing The Sea-Wolf
   D. Historical Context: The Clubs of Inspiration for The Sea-Wolf
   E. Characters: Key Players in The Sea-Wolf
   F. Themes: Persistent Motifs in The Sea-Wolf
   G. Water: A Most Necessary Part of The Sea-Wolf

IV. SHORTER SELECTIONS............................................. 35%
   A. Fiction: Flannery O’Connor’s “The River” (1955)
   B. Fiction: John Cheever’s “The Swimmer” (1964)
   D. Poetry: Sterling Brown’s “Children of the Mississippi” (1932)
   E. Poetry: Askia Touré’s “Floodtide” (1963)
   F. Poetry: Adrienne Rich’s “Diving into the Wreck” (1973)
   G. Poetry: David Slavitt’s “Titanic” (1983)
   H. Poetry: Derek Mahon’s “After the Titanic” (1985)
   I. Poetry: Tarfia Faizullah’s “I Told the Water” (2016)
MATHEMATICS
OVERVIEW OF PERMUTATIONS AND COMBINATIONS, ALGEBRA, AND STATISTICS

I. OVERVIEW OF PERMUTATIONS AND COMBINATIONS .............. 10%
   A. Multiplication Principle
   B. Permutations
   C. Combinations

II. ALGEBRA ................................................................. 40%
    A. Sequences and Series
    B. Polynomials
    C. Binomial Expansion Theorem
    D. Compound Interest
    E. Euler’s Constant

III. STATISTICS .............................................................. 50%
     A. Descriptive Statistics
     B. Measures of Variation
     C. Basic Probability
     D. Probability Distributions
     E. The Binomial Distribution
     F. The Normal Distribution
Aside from steel, Pittsburgh has led in the manufacturing of other important materials — aluminum and glass — and in the petroleum industry. Additionally, it is a leader in computing, electronics, and the automotive industry. For part of the 20th century, Pittsburgh was behind only New York City and Chicago in corporate headquarters employment. After the deindustrialization of the mid-20th century, Pittsburgh has transformed into a hub for the health care, education, and technology industries.

As authentic as it is awesome, the strength of Pittsburgh lies in the friendliness of its people and the beauty of its landscape. Add award-winning chefs, eclectic art galleries, one-of-a-kind venues and world-class attractions all conveniently located within walking distance of the David L. Lawrence Convention Center, and you'll find that Pittsburgh makes for one of the most ideal meeting destinations in the country.

**Convention Center/Hotels**

From its contemporary architectural build, the David L. Lawrence Convention Center was the first Platinum LEED-certified convention center in the United States. On the cutting edge of design, this innovative structure connects the urban city to the waterfront overlooking the Allegheny River. A cascading waterfall and walkway lead to 24 miles of riverfront trails and access to river cruises aboard the Gateway Clipper. The architecturally stunning building symbolizes this region's commitment to sustainable development and environmental awareness.

An icon in the Steel City, The Westin Pittsburgh is an urban oasis brimming with modern style. Welcoming hotel guests with curated amenities, design-forward accommodations and an enviable downtown location, we offer everything you need for a productive and relaxing hotel stay. Minutes from Heinz Field, PNC Park, Market Square, PPG Paints Arena and close to the University of Pittsburgh. Walking distance to restaurants and the eclectic Strip District. Benefit from a direct indoor walkway connection to David L. Lawrence Convention Center.

A safe, walkable Downtown, through the Cultural District, allows guests plenty of free-time options. Pittsburgh is packed with possibilities and boasts 200+ restaurants within easy walking distance of the convention center and Downtown accommodations. Nightlife features walkable hot spots in Market Square, as well as the North Shore, just a short walk across one of the three sister bridges.

What To Do?

Pittsburgh’s major art museums include the Andy Warhol Museum, the Carnegie Museum of Art, The Frick Pittsburgh, Pittsburgh Center for the Arts, and the Mattress Factory. The ToonSeum, one of three museums in the US dedicated to cartoon art, is downtown. The Carnegie Museum of Natural History is the fourth ranked natural history museum in the US and has extensive dinosaur, mineral, animal, and Egyptian collections. The Carnegie Science Center and associated SportsWorks has interactive technology and science exhibits. The Duquesne Incline is a century-old cable car offering the best views of Downtown Pittsburgh. Kennywood Amusement Park is a local park open 120+ years. Check out their classic rides! Catch a game with the Pittsburgh Pirates if they’re in town.

Pittsburgh was named in 1758, by General John Forbes, in honor of British statesman William Pitt, 1st Earl of Chatham. Pittsburgh is located in the southwest of the state, at the confluence of the Allegheny River and the Monongahela River, forming the Ohio River. Pittsburgh is known both as “the Steel City” for its more than 300 steel-related businesses and as the “City of Bridges” for its 446 bridges.
Aside from steel, Pittsburgh has led in the manufacturing of other important materials — aluminum and glass — and in the petroleum industry. Additionally, it is a leader in computing, electronics, and the automotive industry. For part of the 20th century, Pittsburgh was behind only New York City and Chicago in corporate headquarters employment. After the deindustrialization of the mid-20th century, Pittsburgh has transformed into a hub for the health care, education, and technology industries.

As authentic as it is awesome, the strength of Pittsburgh lies in the friendliness of its people and the beauty of its landscape. Add award-winning chefs, eclectic art galleries, one-of-a-kind venues and world-class attractions all conveniently located within walking distance of the David L. Lawrence Convention Center, and you’ll find that Pittsburgh makes for one of the most ideal meeting destinations in the country.

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An icon in the Steel City, The Westin Pittsburgh is an urban oasis brimming with modern style. Welcoming hotel guests with curated amenities, design-forward accommodations and an enviable downtown location, we offer everything you need for a productive and relaxing hotel stay. Minutes from Heinz Field, PNC Park, Market Square, PPG Paints Arena and Close to the University of Pittsburgh. Walking distance to restaurants and the eclectic Strip District. Benefit from a direct indoor walkway connection to David L. Lawrence Convention Center.

A safe, walkable Downtown, through the Cultural District, allows guests plenty of free-time options. Pittsburgh is packed with possibilities and boasts 200+ restaurants within easy walking distance of the convention center and Downtown accommodations. Nightlife features walkable hot spots in Market Square, as well as the North Shore, just a short walk across one of the three sister bridges.

**What To Do?**

Pittsburgh’s major art museums include the Andy Warhol Museum, the Carnegie Museum of Art, The Frick Pittsburgh, Pittsburgh Center for the Arts, and the Mattress Factory. The ToonSeum, one of three museums in the US dedicated to cartoon art, is downtown. The Carnegie Museum of Natural History is the fourth ranked natural history museum in the US and has extensive dinosaur, mineral, animal, and Egyptian collections. The Carnegie Science Center and associated SportsWorks has interactive technology and science exhibits. The Duquesne Incline is a century-old cable car offering the best views of Downtown Pittsburgh. Kennywood Amusement Park is a local park open 120+ years. Check out their classic rides! Catch a game with the Pittsburgh Pirates if they’re in town.
MUSIC
THE INTERSECTIONS OF MUSIC AND WATER

I. BASIC ELEMENTS OF MUSIC THEORY .................................................. 20%
   A. Sound and Music
   B. Pitch, Rhythm, and Harmony
   C. Other Aspects of Musical Sound
   D. Form in Music
   E. Which Is the Real Music? Scores, Recordings, and Performance

II. RELYING ON WATER ................................................................. 18%
   A. Life (and Music) Underwater
   B. Instruments Need Water, Too
      i. Adagio in C for Glass Armonica, K. 356 (K6 617a), 1791 – Wolfgang Amadeus Mozart
   C. Water Workers
      i. “Haul Away the Bowline,” 16th Century? – Anonymous

III. WATER, CONTAINED .............................................................. 10%
   A. The Sound of Water: Fountains
      i. Jeux d’eau, 1901 – Maurice Ravel
   B. The Sound of Water: Aquariums
      i. The Carnival of the Animals, Mvt. VII “Aquarium,” 1886 – Camille Saint-Saëns

IV. WATER, LESS RESTRAINED ....................................................... 10%
   A. The Sound of Water: Oceans
      i. A Sea Symphony (Symphony No. 1), Mvt. I (excerpt), 1909 – Ralph Vaughan Williams
   B. The Sound of Water: Lakes

V. WATER WITH IDENTITY .............................................................. 18%
   A. Water We Know: The Moldau
      i. Má vlast, “Vltava” (“The Moldau”) (excerpt), 1874 – Bedřich Smetana
   B. Water We Know: The Yellow River
   C. Water We Know: The Mississippi
   D. Personifying Water
      i. Die schöne Müllerin, D. 795, No. 20 “Des Baches Wiegenlied” (“The Brook’s Lullaby”), 1823 – Franz Schubert
VI. WATER IN OTHER GUISES ............................................................12%
   A. Music and Rain
   B. Music and Frozen Water
      i. *Children’s Corner*, “The Snow is Dancing,” 1908 – Claude Debussy
   C. Music and Water Vapor

VII. WATER AS SYMBOL .............................................................12%
   A. Symbolic Water: Patriotism
   B. Symbolic Water: Religion
   C. Symbolic Water: The Underground Railroad
I. THE OCEAN PLANET .................................................. 40%
   A. An Introduction to Marine Biology
   B. How Do We Study Marine Life?
   C. The Geography and Geology of the Ocean
   D. Water and Seawater
   E. Sediments
   F. Interactions of the Ocean and the Atmosphere
   G. Waves
   H. Tides

II. MARINE LIFE .................................................. 40%
   A. The Origins of Life
   B. Defining Marine Life
   C. The Building Blocks of Life
   D. Photosynthesis and Chemosynthesis
   E. Biogeochemical Cycles
   F. Classifying Marine Life
   G. The Microbial World
   H. Plankton
   I. Seaweeds and Plants
   J. Invertebrates: Animals without a Backbone
   K. Vertebrates

III. MARINE ECOSYSTEMS ........................................ 10%
    A. What Is Marine Ecology?
    B. Environmental Factors Limiting Organismal Distribution
    C. Ecological Principles
    D. Habitats
    E. Feeding and Food Webs

IV. HUMANS AND THE OCEAN ...................................... 10%
    A. Resources from the Ocean
    B. Anthropogenic Impacts
    C. Conservation and Protection
SOCIAL SCIENCE
WATER IS LIFE, WATER IS POWER: WATER’S ROLE IN HUMAN HISTORY

I. PHYSICAL PROPERTIES OF WATER. ........................................... 5%
   A. Chemical and Atmospheric Properties of Water
   B. Biochemical Properties of Water

II. THE ENVIRONMENTAL HISTORY OF WATER ......................... 55%
   A. Water and Pastoralist Cultures
   B. The Great Transition: Water and the Neolithic Revolution
   C. The Wittfogel Thesis
   D. The “Great Goddess” Hypothesis
   E. The Role of Water in European Antiquity
   F. The Second Great Transition: Urbanization and the Industrial Revolution

III. PRESENT-DAY WATER ISSUES .......................................... 20%
   A. A Miniature History of Waterborne Diseases
   B. The Sanitary Revolution
   C. Water in the Industrialized World: The United States
   D. Water in the Industrializing World: China
   E. Water in the Rural Global South
   F. Water in the Urban Global South—The Example of Bolivia
   G. Water and Agriculture
   H. Oceanic Water

IV. WATER AND THE FUTURE OF HUMAN CIVILIZATION ......... 20%
   A. Response to Scarcity, Example 1: Conservation and Reuse in Israel
   B. Response to Scarcity, Example 2: Desalinization in California
   C. Response to Scarcity, Example 3: Unusual Approaches
   D. Climate Change, International Relations, and Water
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AWARDS PRESENTED AT THE 2021 USAD NATIONALS

- Kristin Caperton Inspiration Award
- B. Franklin Reinauer II Economics Prize
- State Directors’ Communication Award
- Asa Edwin Reaves, Esq. Social Science Prize
- Frank Wurtzel Prize
- Participation medals for all students
- Most valuable team member from each team
- Highest-scoring decathlete from each team
- Individual gold, silver, and bronze medals in art, economics, essay, interview, literature, mathematics, music, science, social science, and speech for varsity, scholastic, and honor divisions, in Divisions I, II, III, and IV
- Super Quiz™ Team Award for Divisions I, II, III, and IV
- Rookie Team of the Year for Divisions I, II, III, and IV
- Founder’s Scholarship: Most Improved Varsity Student in Divisions I, II, III, and IV
- Overall individual awards (first-, second-, and third-place) and scholarships for varsity, scholastic, and honor categories for Divisions I, II, III, and IV
- Overall team awards for first-, second-, third-, and fourth-place for Divisions I, II, III, and IV
- Dr. Robert D. Peterson National Championship Award

Individual Event Awards
Gold, silver and bronze medals are awarded in each division to the first-, second-, and third-place students from the honor, scholastic and varsity categories in each event. All ties are awarded.

Individual Overall Awards
Scholarships and plaques are awarded to team participants in Division I, II, III, and IV to the first-, second-, and third-place students from the honor, scholastic and varsity categories with the highest cumulative scores from all 10 events.

Team Awards
Team scores are determined by the two highest honor scores, the two highest scholastic scores and the two highest varsity scores for all 10 events.

Divisional Awards
Championship trophies and banners are presented to the first-, second-, and third-place teams, and plaques are awarded to the fourth-place teams in Division I, II, III and IV.

Super Quiz Team Awards
Team plaques are awarded to the teams in Division I, II, III, and IV with the highest raw score for all nine students in the Super Quiz.

B. Franklin Reinauer II Economics Prize
This award is presented to the highest-scoring U.S. team participant in economics from Division I, II, III, or IV.

Asa Edwin Reaves, Esq. Social Science Prize
This award is given to the highest-scoring U.S. varsity team members from Division I, II, III or IV in the area of social science.

Frank Wurtzel Prize
This award is given to the varsity student from Division I, II, III or IV with the highest combined score in essay, literature, and speech.

State Directors’ Communication Award
This award is given on a three-year cycle by category (varsity, scholastic, honor) to the team participants from Division I, II, III or IV with the highest combined total scores in the essay, interview, and speech events.

Rookie of the Year Award
Plaques are awarded to the highest-scoring rookie team, defined as a team that has not competed at Nationals for ten or more years, in each division.

Founder’s Scholarship: Most Improved Varsity Student
This award is presented to a varsity U.S. team participant in Divisions I, II, III, IV who has improved their score the most at Nationals from their state competition score.

Highest-Scoring Student Award
An award and a medal are presented to the highest-scoring student on each team in Division I, II, III, IV.

Most Valuable Team Member
An award and a medal are presented to the decathlete who was chosen by their teammates as the most valuable team member on each team in Divisions I, II, III, IV.

Kristin Caperton Inspiration Award
This award is presented to U.S. team participants who have demonstrated particular strength of character, perseverance, commitment, inspiration or team leadership, while overcoming significant obstacles or unusual circumstances to participate in the United States Academic Decathlon.

Dr. Robert D. Peterson National Championship Award
This award is given to the U.S. team from Division I, II or III with the highest overall score, and that team is proclaimed the National Champion.
2021 USAD NATIONALS WINNERS

DIVISION I

FIRST PLACE DIVISION I
Granada Hills Charter High School, California

SECOND PLACE DIVISION I
Highland Park High School, Texas

THIRD PLACE DIVISION I
Whitney Young Magnet High School, Illinois

FOURTH PLACE DIVISION I
Cedar Rapids Jefferson High School, Iowa
2021 USAD NATIONALS WINNERS
DIVISION II

FIRST PLACE DIVISION II
Wilmot Union High School, Wisconsin

SECOND PLACE DIVISION II
Rutherford High School, New Jersey

THIRD PLACE DIVISION II
Lathrop High School, Alaska

FOURTH PLACE DIVISION II
Bellevue East High School, Nebraska
2021 USAD NATIONALS WINNERS

DIVISION III

FIRST PLACE DIVISION III
Oakwood High School, Ohio

SECOND PLACE DIVISION III
Avalon School, Minnesota

THIRD PLACE DIVISION III
St. Pius X High School, New Mexico

FOURTH PLACE DIVISION III
Elite Scholars Academy, Georgia
2021 USAD NATIONALS WINNERS
DIVISION IV

FIRST PLACE DIVISION IV
Bandera High School, Texas

SECOND PLACE DIVISION IV
BASIS Scottsdale, Arizona

THIRD PLACE DIVISION IV
Western Center Academy, California

FOURTH PLACE DIVISION IV
Mount Michael Benedictine School, Nebraska
VISION
The vision of the U.S. Academic Decathlon® is to provide students the opportunity to excel academically through team competition.

MISSION
The mission of the U.S. Academic Decathlon® is to promote learning and academic excellence among students of varying achievement levels by developing and providing multidisciplinary academic competitions using U.S. Academic Decathlon®-based curricula.

CORE VALUES
As a premier national scholastic competition for high school students, the United States Academic Decathlon® believes in:

- The academic growth of students;
- Challenging multidisciplinary learning;
- Teamwork as a means to achieve self-knowledge and life-skills development;
- Providing equal opportunities for students of varying achievement levels;
- The importance of inclusivity and diversity to learning and the human experience;
- High standards of honesty and integrity;
- Transparency in our relations and interactions with all of our stakeholders;
- Excellence in our programs, services, and activities; and,
- Respect for diverse points of view.