INDEX OF ICUF MULTI-MEDIA LIBRARY

Key
V Video
SPS Self-paced Slides
(1) Minutes (Video) or Slides (Self-paced Slides)
TC Teacher Content Knowledge
TPP Teacher Pedagogy & Preparation
SC/P Student Content/Practice
O Other Audience

SOCIAL STUDIES

Democracy's Laboratory: Know America: SDS (33), TPP, an overview of course design, differentiated instruction, student engagement, and creative assignments are highlighted featuring best practices for teaching history and other social studies. Module includes a variety of assessments, strategies and tools, and samples to assist teachers, teacher candidates, and new teachers with resources and methodology to teach US History.

Democracy's Laboratory: The Arrival: SDS (31), TPP, TC, O, this module discusses immigration trends with an emphasis on engaging English Language Learners. This would also be appropriate for professional seminars on ESOL training as well as initial information for teacher candidates and new teachers.

Democracy's Laboratory: Colonial Florida Overview: V (33:28), TC, overview of historical perspective of St. Augustine around 1513.

Democracy's Laboratory: Modern Florida Emerges: V (45:24), TC, SC/P, lecture on the Flagler era with the stories behind the architectural history of the time. Featured as the birth of modern Florida based prior to WWII. Could be used with advanced high school history students.

Democracy's Laboratory: Florida Timetable and Dates: V (11:56), TC, overview of key dates, population information, and a timeline that explains the development of Florida.

Democracy's Laboratory: Overview of Social Studies Instruction: V (8:05), TC, TPP, samples of how to teach geography and political science as well as historical movement of people with census data.

Democracy's Laboratory: Diversity and Mobility: V (11:48), TC, TPP, lecture on engaging students with issues related to diversity and mobility in Florida and other segments of the US.

Democracy's Laboratory: Citizenship: V (25:16), TC, TPP, an overview of the components of the naturalization process and what it means to become an American citizen.

Democracy's Laboratory: Reading and Social Science: V (24:46), TPP, strategies to actively engage students for blocks of time using reading in the content area of social studies and collaboratively learning activities.

Democracy's Laboratory: Reference and Research: V (53:06), TC, TPP, the use of primary sources and specific strategies that can increase student achievement in research, writing, and reading skills related to social studies.

Democracy's Laboratory: Overview of Special Populations: V (23:59), TC, TPP, emphasis on language processing disorders and executive functioning related to critical thinking in academic settings.

Democracy's Laboratory: Students with Disabilities: V (20:24), TC, TPP, background of laws related to special education and strategies to not only teach teachers about identification of disabilities related to these laws but also understand how to work with students in social studies content.

Democracy's Laboratory: Teaching History to Special Populations: V (33:27), TC, TPP, techniques and strategies that work in history classrooms to engage special populations with specific applications to understand the meaning behind historical events.

Democracy's Laboratory: Teaching Methods for Teaching Special Populations: V (28:47), TC, TPP, a question and answer discussion between lecturer and teachers with an ESL focus.

MATH

Critical Math Series: SPS of 17 math topics that include: Whole Numbers, Fractions, Decimal Fractions, Signed Numbers, Powers and Roots, More Powers and Roots, Units and Measurement, Algebra, Solving Formulas and Equations, Simultaneous Equations, Ratio and Proportion, Percent, Geometry, Trigonometry, Vectors, Numbering Systems, Boolean Algebra, TC, SC/P, O, comprehensive overview of mathematical concepts with interactive practice problems, assessments, vocabulary, problem-solving tips, simple to complex. This series of courses could be very helpful to teachers preparing to take the GRE for graduate school.

Algebra: SPS of 8 models that include: Working with Real Numbers, Linear Equations and Inequalities, Relations and Functions, Graphing Linear Equations and Inequalities, Systems of Linear Equations, Quadratic Equations, Radicals, and Complex Numbers, Rational Expressions, Conics, Polynomial Functions, Permutations and Combinations, TC, SC/P, O, comprehensive overview of each topic with practice problems and answers/explanations. This series of courses could be very helpful to teachers preparing to take the GRE for graduate school.

Geometric Analysis of Shark Teeth: SPS (21 PowerPoint Slides/no narration), TC, SC/P. provides connection for students between various math and science standards related to nature (shark teeth)

Geometry & Biology: V (7:53), TC, TPP, teacher training to relate real-life context of integrating math and science, good introduction to use of Geometric Analysis of Shark Teeth.

Planning an Engaging Lesson: SPS (35), TPP, narrated slides with interactivity demonstrating components of a lesson, review of best practices in geometry instruction with examples.

SCIENCE

The Equipment Locker: Microscope Module (English audio): SPS (23), TC, SC/P, excellent slides with video links and partner websites with huge variety of slides showing different organisms under the microscope, molecular expression, tutorials about optical microscopy and a short quiz.

The Equipment Locker: Microscope Module (Spanish audio-English content on slides): SPS (23), TC, SC/P, excellent slides with video links and partner websites with huge variety of slides showing different organisms under the microscope, molecular expression, tutorial about optical microscopy, and a short quiz.

Marine Biology I: SPS (58), TC, SC/P, modules on basics of marine biology including chemistry circulation, motion, currents, waves and tides. Includes formative assessment throughout.

Marine Biology ll: SPS (48), TC, SC/P, modules on habitats, ecosystems, tropics and autotrophic organisms, food chains, and estuaries.

Science Education: SPS (32), TPP, topics covered include student engagement, curriculum that makes a difference, planning and preparation, scaffolding science content, student assessment, and teacher assessment of quality of instruction. Some broken links.

Life Science: SPS (49), TC, SC/P, how life began, biological organization and classification, plant and animal cells, organ systems, vertebrates, photosynthesis, energy related to ecosystems, Florida ecosystems and wildlife.

The Brain: SPS (56), TC, SC/P, information about the brain, nervous system, discussion of brain malfunctions and diseases, including Alzheimer's, Parkinson's, MS and ALS.

Tobacco Awareness: SPS (31), SC, comic book version of dangers of tobacco use. May be appropriate only for older elementary, young middle school students.

Health Education: SPS (42), TPP, discusses appropriate health integration in elementary, middle, and high school classes and the coordination of the Florida Department of Education and Department of Health. Includes instructional strategies and additional resources (some links broken).

Basic Electricity: SPS (67), TC, SC/P, fundamentals of atoms, energy, valence, power, charge, conductors, current, voltage, resistance and their relationship to each other. STEM appropriate.

Basic Electricity ll: SPS (61), TC, SC/P, circuits, electricity components, explains the connection to engineering through many samples. STEM appropriate.

Basic Aerodynamics: SPS (51), TC, SC/P, the parts of the airplane that pertain to flight, takeoff, maneuvering aircraft, the science behind flight. Excellent graphics.

Aerodynamic Terms: SPS (43), TC, SC/P, how airplanes fly, parts of the plane, different types of engines, additional information on flight maneuvering.

Newton's Laws of Motion: SPS (31), TC, SC/P. details about Newton and each of the three laws of motion and their application in engineering, to math and every day life.

Introduction to Propulsion: SPS (39), TC, SC/P, an emphasis on the physics of propulsion with additional information on Newton's Laws of Motion and aerodynamics, application to engine types related to space and rockets.

The Forces of Propulsion: SPS (41), TC, SC/P, review of Newton's Laws of motion, thrust, engines, equations related to thrust, and many interactive graphics.

Liquid Fuel Rockets: SPS (47), TC, SC/P, elements of rocket design, how rockets work inside/outside, ending with the development of the space shuttle.

Solid Fuel Rockets: SPS (33), TC, SC/P, historical background of rocket propellants from China, inside view of combustion chambers related to burn and thrust, progressive burns, ending with how solid fuel affects the space shuttle.

Cape Canaveral Air Force Station: SPS (51), TC, SC/P, history of Cape Canaveral including details and graphics of the facilities, the missions conducted there, and the support systems in place for the entire work of the station.

Future Space Exploration: SPS (33), TC, SC/P, an overview of deep space, potential future projects that include unmanned and manned vehicles, humans in space, and commercialization and the space industry.

International Aspects of Space Technology: SPS (41), TC, SC/P, beginning with the international space treaties, this presentation includes information about the European Space Agency (ESA) and its partners, ESA research projects, space missions and launch sites, and other countries' participation in space exploration including China, Japan, and Russia.

International Space Station: SPS (26), TC, SC/P, overview and history of the International Space Station include how it was built, what it looks like inside, how the astronauts operate within it, and other pertinent details.

Living and Working in Space: SPS (33), TC, SC/P, details about how astronauts eat, what they wear, how they prepare for living in space and other space habitation factors.

The Shuttle Program: SPS (61), TC, SC/P, history of the U.S. space shuttle program, including design elements and components, the Challenger disaster and lessons learned, the entire fleet, the orbiter vehicle, and how this program connects to the International Space Station.

Unmanned Exploratory Craft: SPS (27), TC, SC/P, various spacecraft and the joint research between the US and Russia are detailed in this presentation.

U.S. Military Satellites: SPS (54), TC, SC/P, overview of military communication and defense satellites by different branches of the US Armed Forces. A lot of detail probably not appropriate for all but those interested in the military and advanced satellite systems.

U.S. Space Operations: SPS (33), TC, SC/P, an historical review of US efforts in space that include the reaction from Sputnik, Apollo missions, Skylab, the shuttle, and commercial space. The newest information is probably outdated.

Weather and Navigation Satellites: SPS (20), TC, SC/P, details about how these satellites work, what they can detect, how the National Oceanic and Atmospheric Administration and National Weather Services operate, graphics that describe how GPS works through satellites.

Kennedy Space Center/Cape Canaveral Site Familiarization: SPS (30), TC, SC/P, an historical review of this landmark from World War II to future missions.

History of Rocketry: SPS (32), TC, SC/P, from ancient Chinese rockets through the development of the NASA, this slide program includes short biographies of many of the international scientists whose experimentation and discoveries about rockets resulted in military and space programs in use today.

Orbital Science: SPS (26), TC, SC/P, an explanation of the motion of planets, start, comments and man-made satellites, theories that support the science of orbits, a review of Newton's theories, estimates of trips to other planets based on orbits.

The Space Race-Early Years: SPS (60), TC, SC/P, detailed information about various programs of the US and former Soviet Union from 1957 through the moon race and on to the development and implementation of the international space station.

Hydrogen Basics: SPS (23), TC, SC/P, chemical explanation of the element hydrogen and how it combines with other elements, the properties of hydrogen, and its relativity to fission and fusion as a futuristic fuel.

Into the 21st Century: SPS (21), TC, SC/P, an exploration of possibilities of hydrogen usage in the future, particularly as it relates to fuel cell operation and technology.

Liquid Hydrogen: SPS (22), TC, SC/P: attempts by scientists to liquefy gas, including hydrogen, details about hydrogen as a high performance fuel, especially related to fuddling space rockets.

Manufacturing Process: SPS (13), TC, SC/P, methods of producing hydrogen gas, including the processes, the location, sustainable methods for using biomass, and economic barriers to these processes.

Storage Methods: SPS (14), TC, SC/P, different processes of storing hydrogen and the problems associated with each process, including transportation issues.

SCIENCE MATH MASTER: Teacher Workshops

Biology Lesson: V (17:08), TC, TPP, workshop atmosphere demonstrating lessons and strategies for teaching meiosis and mitosis, use of clickers and Cornell notes, would be helpful to have handouts and list of materials

Biology Standards: V (16:00), TC, TPP, overview of end of year exams, next generation sunshine state standards, and resources

Math/Science Integration: See Geometry & Biology in MATH

Geological Time: V (16:51), TC, TPP, focus on training to think like a scientist, connection between the themes of biology, highlights of geographic timelines, how to incorporate timelines for students, analyzing data for content and application, would be helpful to have handouts and resources/worksheets illustrated.

Water: V (18:17), TC, TPP, modeling experiments with water kit, example of acting out how water works with bonds and molecular changes, would be helpful to have handouts and resources associated with workshop.

Molecules: V (19:26), TC, TPP, focus on bioinformatics and PH, modeling teaching chemistry with demonstrations and role plays, would benefit from handouts and worksheets referred to in workshop.

Cell Formation & Polymers: V (22:06), TC, TPP, how to teach about amino acids and chemical attractions, movement patterns of cells, modeling professional development in chemistry, need materials to fully understand how to implement

Biology: Let's Talk about Sex: SPS (35), with narration, TC, TPP, meiosis I and meiosis II functions in sexual reproduction, information about chromosomes, diploid and haploid cells, gametes, slides to check understanding, experiments with instruction sheet and answer key, some links broken.

Shark Biology: V (20:35), TC, TPP, discusses ecology and how organism's relate to environments, tied to standards, how to connect students to context of how the themes of biology are related to ecosystems, biodiversity, fossils, and biological classification, engaging students in scientific research about their surroundings

Goliath Grouper Feeding: V (6:45), TC, TPP, SC/P, using geometry to understand how fish feed, teachers are at Florida Aquarium while narrator discusses science-math integration.

Geometry Bridge-Class Plan: V (29:29), TC, TPP modeling a lesson on different topics that help students understand ratios, sine and cosine, Pythagorean theories, as it relates to bridges and other items students can relate to, would be helpful to have handouts and worksheets.

Geometry Robots-Class Plan: V (10:54), TC, TPP, SC/P, how video game developers use geometry in creating robots, teachers practice using manipulatives and drawings to create robots, would benefit from information sheet and rubrics.

Diversity-Math & Geometry: V (14:19), TPP, overview of differentiated instruction with a focus on teaching up, teachers share idea about connecting with students and strategies for giving students power and control over their learning environment.

ART

Untie the Right Brain: Introduction to Brain Research: SDS (31), TPP information on research with self-assessment and links to videos on neuroscience and its relationship to classroom management strategies, student learning activities, and student achievement. Some video links are broken.

Untie the Right Brain: Spreading the Word: Coaching Colleagues to Infuse the Arts Across the Curriculum: SDS (29), TPP, information on coaching cultural misunderstanding, changing education paradigms, team building, and coaching strategies. This session would be appropriate for mentors, school leaders, and whole faculty trainings.

Untie the Right Brain: 7 Essential Skills and Connections to Arts Infusion in the Classroom: SDS (18), TPP, focus on skills needed for the future, including the power of curiosity as it relates to strategies to connect students to math and science through arts.

FLORIDA HISTORY

This *Discover the First America* series consists of videos of experts, historians, lecturers, presenters, musicians, and storytellers presenting information about Florida history with an emphasis on St. Augustine history filmed at Flagler College. While many of these are suitable for older students, it is recommended that teachers preview all videos for appropriate level of engagement for students.

St. Augustine History: V (64:53), TC, government and civic leaders and historians welcome teachers and feature a lecture by historian Dr. Gannon, an expert on Ponce De Leon, and information about the Ponce De Leon celebration in St. Augustine.

The People Before Ponce De Leon: V (13:32), TC, overview of primitive people in the St. Augustine area.

St. Augustine: V (33:08), TC, introduction to St. Augustine geography and history.

St. Augustine's Founder Pedro Menendez: V (62:51), TC, SC/P, a re-enactment by performer retelling the story from the founder's perspective.

Pirates-Fact & Fiction: V (57:02), TC, historical information about the myths and truths related to pirate activity in Florida, particularly in the St. Augustine area.

The British Are Coming: V (70:42), TC, SC/P, includes a fashion show of British clothes and other artifacts that help tell the history of other cultures in early Florida.

The Great Southern Cracker Roadshow: V (46:16), TC, music and cultural program highlighting groups and individuals that demonstrate the cracker culture.

Flagler's Palaces in Paradise: V (60:46), TC, a history lecture with slide show of architecture and history of buildings and hotels build in Florida as part of the Henry Flagler empire.

African Americans Arrive in St. Augustine: V (43:07), TC, SC/P, a musical and storytelling description and lecture about the arrival of African Americans in Florida and the Underground Railroad.

The Freedom Road: V (49:11), TC, SC/P, presentation of communication through songs of early American slaves in the United States.

St. Augustine History: V (64:53), TC, government and civic leaders and historians welcome teachers and feature a lecture by historian Dr. Tom Graham and information about the Ponce De Leon celebration in St. Augustine.

EDUCATION

1st Class Tutorial- Introduction: SPS (5), TC, TPP, overview of why to teach in Florida

Student Assessment: SPS (24), TPP, background on types of assessment, rubrics

Communication: SPS (25), TPP, classroom strategies, communication with parents, assisting students with communication through cooperative learning

Continuous Improvement: SPS (26), TPP, teacher development, 12 Florida Educator Accomplished Practices, mentors, self-directed improvement, professional development plans

Critical Thinking: SPS (21), TPP, levels of thinking with examples, questioning strategies, assignments and projects that promote critical thinking

Diversity: SPS (79), TPP, strategies to use with diverse populations, questioning techniques, gifted education, EL, ESE, multiple intelligences, maximize effectiveness

Ethics: SPS (15), TPP, principles of professional conduct, professional judgment, record keeping, dress, community reputation

Human Growth & Development: SPS (55), TPP, psychology course on human development levels with educational implications, Piaget, Vygotsky, Erickson, Kohlberg

Knowledge of Subject Matter: SPS (31), TPP, curriculum and content knowledge, standards in teaching, connecting students to content and real world application, interdisciplinary content

Learning Environments: SPS (22), TPP, classroom setting, learning climate, discipline and rules, classroom management overview

Planning: SPS (27), TPP, individual study and teacher planning, goals of instruction, lesson plan components, student engagement, differentiated instruction

Role of the Teacher: SPS (30), TPP, how to handle problems, depression, substance abuse, child abuse, and communication with parents

Technology: SPS (46), TPP, resources available to teachers, how to teach with technology, online training, courseware, coping and legal issues

Classroom Readiness: SPS (34), TPP, practical tips for getting ready for first day, room preparation, teacher introductions, procedures, mental preparation

Math Education-Elementary: SPS (30), TPP, overview of successful planning, formative assessment, incorporating reading with problem solving, activating curiosity

Math Education-Middle/High: SPS (26), TPP, strategies for success, additional tips of problem-solving strategies to incorporate with students

Mentoring: SPS (28), TPP, mentoring students, planning and goal setting, common problems associated with mentoring students

Mentoring Toolkit: SPS (40), TPP, sample programs, one-on-one, screening mentors, what works, activities in math, science, and reading for mentoring sessions

Math& Science for Special Populations: SPS (29), TPP, how to connect special, diverse populations to math and science study, examples of diverse scientists

Parent Homework Helper: SPS (13), O, materials that help parents, partnering with schools, math anxiety

Teaching Reading with Math and Science: SPS (38), TPP, reading skills related to math and science, fluency, vocabulary development, comprehension, sample books

Education Assessment: V (5:40), TPP, teachers discuss the purpose of school and what schools should be doing, how to accomplish goals of schools