

IPSWICH

CREATIVITY, CRITICAL THINKING AND MORE.

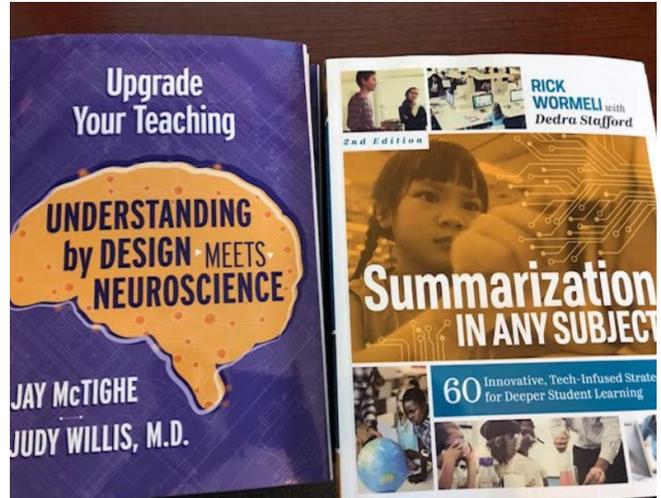
SUMMER PROFESSIONAL DEVELOPMENT COURSE 2019

BLUE SKIES:

STANDARDS-BASED
CURRICULUM
WRITING
SUMMER 2019



Course Overview



"Blue Skies: Standards-Based Curriculum and Instruction" is the shiny star of the IPS Summer Professional Development universe. Here, educators of all grades and content areas are invited to bring their "Understanding by Design"-style curriculum units, collaborate to learn (and refresh) new instructional techniques, and apply this learning to their curriculum units through reflection, curriculum integration and daily "Learning Cycles" feedback from their colleagues and instructor. In all, this popular curriculum writing course is perfect for educators seeking a designated time, place and support for composing Massachusetts standards and local Habits of Mind-based curriculum.

Elementary School Teachers



Cheryl Bistany Hill

School and Grade Level: Paul F. Doyon Elementary;
Kindergarten

UBD Unit: [Persuasive Writing of All Kinds](#) - Calkins

Essential Question: *How can a writer use words to make a change?*

Description of Unit: In this unit, Kindergarten students will learn that their opinions matter and what they write can influence people's decisions. They will see that words are powerful and how they use words can make a change!

Elements I included from the course in this unit: I have incorporated a sharing goal where students choose their presentation media and their own audience!

I'm most looking forward to implementing: I am looking forward to helping the students realize that their words can make a change!

Elementary School Teachers

Susan Speak & Amy DiFazio



School and Grade Level: Paul F. Doyon Elementary; Grade 2

UBD Unit: [Unit 1: Collecting, Representing and Adding & Subtracting Data-grade 2](#)

Essential Questions: How and why do mathematicians represent data to communicate information? How can data be communicated visually? When is a graph a good idea to use?

Description of Unit: In this unit students will engage in a variety of problem solving activities that explore how to organize and interpret data. Students will use picture graphs, bar graphs, and tape diagrams to build their understandings and make connections between visual models and mathematical data sets. Students will engage in classroom activities that help to build a mathematical community and mindset.

Elements I included from the course in this unit: Feedback from colleagues during the class Learning Cycles, Summarizing strategies from *Summarization in Any Subject*, brain-based research strategies from *Upgrade Your Teaching*, *Understanding by Design Meets Neuroscience* for writing a UBD Unit.

We're most looking forward to implementing: We are looking forward to using an innovative math curriculum that is accessible to all students. We are also excited to implement a unit that incorporates instructional routines, problem-based activities and many opportunities for synthesis.

Elementary School Teachers



Susan Merrill

School and Grade Level: Paul F. Doyon Elementary; Grade 1

UBD Unit: [Math Unit 1: Collecting and Using Data Using Data](#)

Essential Questions: What is a math community? Why and how do people share information?

Description of Unit: This UBD unit breaks down the components of the IM Math 1st Grade Unit: Collecting and Using Data. The lessons within the unit teach students:

1. How to represent and interpret data. 2. How to represent and solve addition and subtraction problems within 20. 3. How to be part of a math community. 4. Communication and self-management skills.

Elements I included from the course in this unit: Strategies from the book *Summarization in Any Subject* by Rick Wormeli; Learning Cycle feedback; feedback and resources from Tracy; exemplars from colleagues; discussions with colleagues.

I'm most looking forward to implementing: Implementing and tweaking the unit to best fit the needs of the students. I'm also looking forward to being part of the IM Math PLC Group.

Elementary School Teachers

Toni Mannette & Carrie Clasby



School and Grade Level: Paul F. Doyon Elementary; Grade 4

UBD Unit: [Fourth Grade Word Study](#)

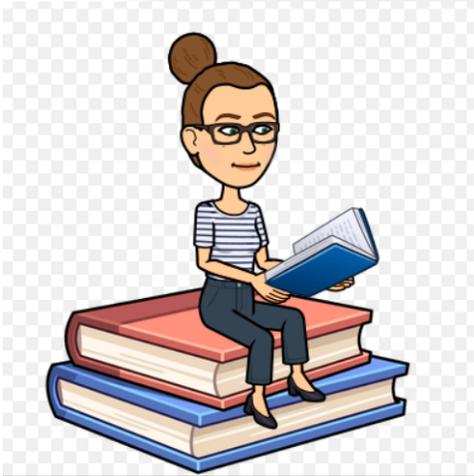
Essential Questions: How can knowledge of irregular spelling patterns help me when spelling a new word? How does understanding word construction help me figure out words I don't know? How can learning the meaning of new words help to understand? How can knowing standard English conventions help me be a better writer?

Description of Unit: This comprehensive Word Study unit encompasses spelling, vocabulary, and grammar skills. Students will use a variety of strategies to learn spelling patterns, morphology and content area vocabulary, and standard English conventions. Learning will be differentiated based on students' developmental stages.

Elements I included from the course in this unit: This unit uses strategies from *Summarization in Any Subject* (Frayer Model, Word Wall, Word Splash, Charades). We also included some ideas from Learning Cycles (I Have Who Has and Sentence and Paragraph puzzles).

I'm most looking forward to implementing: We are looking forward to seeing the impact the learning from this unit will have on students' reading and writing aptitude.

Elementary School Teachers



Teresa Hohenstein

School and Grade Level: Paul F. Doyon Elementary; Library Media Specialist

UBD Unit: [Media Literacy- Reading Images Critically](#) (for Grade 5)

Essential Questions: How do images tell a story? Whose story is being represented in an image? How can we determine the “authenticity” of an image?

Description of Unit: This unit explores how images provide us with information and tell a story. Effective researchers analyze and evaluate images they are using to determine authenticity and relevance. The ability to critically think about images serves as an introduction to developing good research skills.

Elements I included from the course in this unit: I incorporated the following summarizing strategies from the text, *Summarization in Any Subject*: 3-2-1 and Tweet This.

I'm most looking forward to implementing: I am curious to see what questions the students develop when analyzing images and sources.

Elementary School Teachers



Maureen O'Connell

School and Grade Level: Paul F. Doyon Elementary; Math Specialist

UBD Unit: [Blue Skies Grade 3 IMK-5 Introducing Multiplication](#)

Essential Questions: What does it mean to learn math by doing math?* What norms support a community of mathematicians doing math?* How can I use what I learn in math class in the real world?* How can visual models support the understanding of data?* How can what we know about equal groups help us represent and solve Multiplication problems?* *These are consolidated from the IM K-5 curriculum

Description of Unit: This is an exploration of unit one of the IMK-5 for Grade 3. The unit extends what students know about data sets by introducing scaled graphs. These graphs become a segway to the concept of multiplication. Students utilize arrays to represent multiplication and learn about its Commutative Property. They explore what it means to understand math by doing math and build norms for a Mathematical Community.

Elements I included from the course in this unit: We benefited from peer feedback during Learning Cycles, thinking about brain based research and related teaching strategies, using a UBD format, and lots of summarizing strategies from the course texts *Upgrade Your Teaching* and *Summarization in Any Subject*.

I'm most looking forward to implementing: I am excited to use this Alpha Pilot material with students because it is rigorous, problem solving based, and emphasizes creating a safe, joyful Math Community. Each lesson follows a similar structure which will hopefully free students to focus on doing the math.

Elementary School Teachers



Jena Woodworth

School and Grade Level: Paul F. Doyon Elementary;
Kindergarten

UBD Unit: [Launching the Writer's Workshop](#)

Essential Questions: What can we use writing for? What makes a writer?

Description of Unit: The Launching the Writing Workshop unit will be the introductory unit to writing workshop. The students will begin to learn about the writing process, and use their own ideas, words, and pictures to write books. This unit concludes with a Writer's Celebration that allows students to share their hard work with the class.

Elements I included from the course in this unit: I have incorporated writing goals and multiple sharing opportunities for students within the lessons of this unit.

I'm most looking forward to implementing: I am most looking forward to seeing the growth students make in their writing throughout the year.

Elementary School Teachers

Meghan Hudon & Molly Lacolla



School and Grade Level: Winthrop Elementary; Grade 1

UBD Unit: [Grade 1 Everyday Math Gap Analysis](#)

Essential Questions: How well does our EM curriculum align to the MA Mathematics standards? How can we reorganize our units to deepen student understanding of major concepts?

Description of Unit: In order to ensure that our math instruction was cohesive and thorough, we realized there was a need to analyze the gaps in our current EM curriculum. First, we identified the concept and standards addressed within the lessons of each unit. This allowed us to see how often and how in depth each standard was addressed. We then worked on logically reorganizing the units to build and deepen students' understanding, adding in supplemental instruction and materials when necessary.

Elements I included from the course in this unit: Feedback from colleagues during our learning cycles provided us with guidance on how to reorder our units and rethink the structure of our math instruction.

I'm most looking forward to implementing: We are looking forward to seeing our students build and strengthen their math skills through continuous, cumulative instruction and application.

Elementary School Teachers

Lauren Fonvielle & Meg Smith



School and Grade Level: Winthrop School; Grade 3

UBD Unit: [Life Cycles, Heredity and Traits](#)

Essential Questions: How do organisms grow and change? How do differences in organisms help with survival? How can we use characteristic traits of plants or animals to identify their species? What can the traits of a plant or animal tell us about the environment they live in?

Description of Unit: This unit is an exploration of the life cycles of all living things. It also explores the differences between inherited and environmental traits. Students use research, observations, exploration and hands-on activities to explore these concepts.

Elements I included from the course in this unit: We included summarization techniques such as Venn diagrams, jigsaw activities, two-column notes, and included a performance task with a student rubric for students to use for self-management, creativity and critical thinking.

I'm most looking forward to implementing: We are looking forward to seeing their excitement about using realia and maintaining their custom science notebooks. We are also excited for the use of media with this unit.

Elementary School Teachers



Marty Daignault

School and Grade Level: Winthrop Elementary; Grade 4

UBD Unit: [Tornado Alley STEAM](#)

Essential Questions: What is a 'good' decision? How do we make good decisions? How do fractions help?

Description of Unit: A STEAM game to problem solve the world: Students research then compute the fractional likelihood of being hit by a tornado in Tornado Alley. They make the mathematical game boards, then are given property in a state... then spin and roll the dice, as though they live there! They can be wiped out. Oh, they can buy insurance before they start, but it's expensive. How will they make a good decision? Oh yes - with research, math and critical thinking.

Elements I included from the course in this unit: UbD thinking, brain research on learning and motivation, feedback from peers.

I'm most looking forward to implementing: The fun factor for what can be as dry as dirt. To find evidence of transfer of learning for important 4th grade topics.

Blue Skies



Middle School Teachers

Gena Bevilacqua

School and Grade Level: Ipswich Middle School; School Adjustment Counselor

UBD Unit: [Growth Mindset for Middle School](#)

Essential Questions: In what ways can I “stretch” myself to build my growth mindset? How would having a growth mindset make me a stronger learner? How does my self-concept impact my relationships with others?

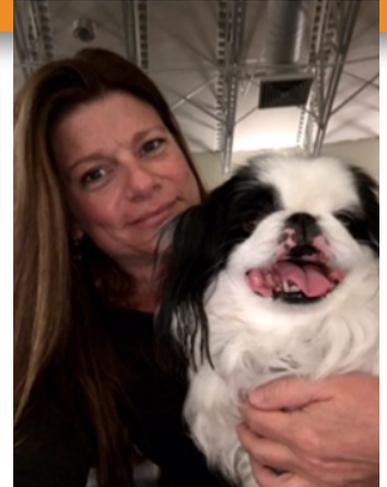
Description of Unit: Growth Mindset for Middle School is an introduction to understanding the brain and building a mindset that improves self-management and perseverance for students in grades 6-8. Students will gain an understanding of basic brain functions, with emphasis on the role that neurons play in creating new connections and strengthening their skills and abilities. Through unit lessons, students will explore the characteristics of growth and fixed mindsets, identify strategies for and obstacles to building a growth mindset, set a goal to “stretch” themselves, and think about ways that mindset impacts their self-concept, learning, and relationships with others.

Elements I included from the course in this unit: Neuroscience research on the impact of stress on learning and mindset; formative assessments, including pre-assessment and ongoing assessment (observations, all-pupil responses, exit cards, question box); allowing for revisions on summative assessments; feedback from facilitator; feedback and discussions from Learning Cycles.

I'm most looking forward to implementing: I am most looking forward to sharing this unit with students who struggle academically and frequently feel stress and frustration related to their intellectual abilities. I want my students to see that they are capable of succeeding in challenging situations with effort, perseverance, and practice.

Middle School Teachers

Julie McMahon



School and Grade Level: Ipswich Middle School; Humanities 8

UBD Unit: *All American Boys*

Essential Questions:

How do our values contribute to our identity? How are bias and prejudice “created” and can they be overcome? What is a just society and the role of individuals in maintaining a healthy democracy?

Description of Unit: *All American Boys* is a narrative text told from the perspective of two high school boys who experience the same situation in very different ways. The unit addresses complex issues around race, stereotyping, and identity. Students will engage in active reading, reflective writing, discourse, and research.

Elements I included from the course in this unit: My colleagues were incredibly helpful to me with the process. In particular, identifying the key differences between content and application. In addition, I utilized strategies from the *Summarization* text in my unit.

I'm most looking forward to implementing: I'm excited to hear the conversations and see the writing that this unit elicits from the students.



Middle School Teachers

Karen Reed

School and Grade Level: Ipswich Middle School -- Spanish, Grade 8

UBD Unit: [Primer Paso, ¿Quién soy yo? \(Información Básica\)](#)

Essential Questions: How can language bring people together? How can language expand our minds to new ways of thinking? How can learning a language open our eyes to a new way of viewing the world?

Description of Unit: Students grow from knowing at most a handful of random words in Spanish to being able to hold an introductory conversation completely in Spanish. In that conversation, students will be able to ask and share basic information such as their name, age, birthday, and things that they like and dislike doing. They will also be able to include authentic gestures, salutations, farewells and pleasantries.

Elements I included from the course in this unit: I used valuable feedback from colleagues in making edits to both my Enduring Understandings and Essential Questions. The concept that new information is committed more easily to long term memory when the brain can connect it to prior knowledge (*Upgrade Your Teaching*) will impact the En 5 minutos (Do Nows) that I will create and how I present new information. Based upon the AMT chapter in the text by Tighe and Willis I analyzed Stage 3 of my unit to ensure that I provide opportunities for Acquiring, Manipulating and Transferring knowledge. The summarization book has some terrific strategies for deeper learning. In this particular unit, I use Google Voice where students 'Call-In' and leave me a message in Spanish about telling me all about themselves.

I'm most looking forward to implementing: I am most looking forward to two things, 1) witnessing the dissipation of the panic and fear of being immersed in Spanish on day 1 and the emergence of smiles, laughter and joy that develops as students realize they can understand and communicate in Spanish & 2) watching students progress from knowing a few random words in Spanish to holding an introductory conversation in Spanish.

Blue Skies

Middle School Teachers

Tara Wasserstein



School and Grade Level: Ipswich Middle School, Grade 8

UBD Unit: [Catapults and Quadratics](#)

Essential Questions: How are quadratic functions useful in real world applications? What is the connection between mathematics and physics in the design and use of catapults? How can quadratic functions be used to analyze the path of a projectile in changing situations?

Description of Unit: Catapults & Quadratics is a summative project to be completed by grade 8 students in the Algebra 1 course after they have studied topics including factoring polynomials and graphing quadratic functions. In this STEM project, students will work in cooperative groups to research, design, and build a functional catapult using common classroom materials. Students will test their catapult and readjust their design to enhance consistency and accuracy of target hits. Afterwards, each group will video record their launch and use a screenshot of the projectile in motion to create a graph using Desmos, from which they will devise a quadratic equation that represents the parabolic path of the object. The project will conclude with a thorough mathematical analysis of the quadratic equation and the graph.

Elements I included from the course in this unit: Performance-based assessment; analytic rubric as a guide for success; Desmos computer graphing technology; differentiation via universal design; modeling sample project; activating prior knowledge; peer collaboration; reflecting & revising; mathematical analysis; mini lessons; formative & summative assessments; student goal-setting and self-regulation.

I'm most looking forward to implementing: Given that advanced mathematical topics like quadratics can be relatively abstract for students, I am excited to see them participate in a hands-on experience where they will be able to apply the concepts they have learned to a real-world situation. My hope is for students to develop an appreciation of how relevant and meaningful quadratics can be in various applications. I am also looking forward to providing them with a genuine STEM experience in their mathematics classroom so that they recognize the close connection between math and physics.



MS/HS Teachers

Heather Chang

School and Grade Level: Ipswich Middle & High Schools; Library Media Specialist

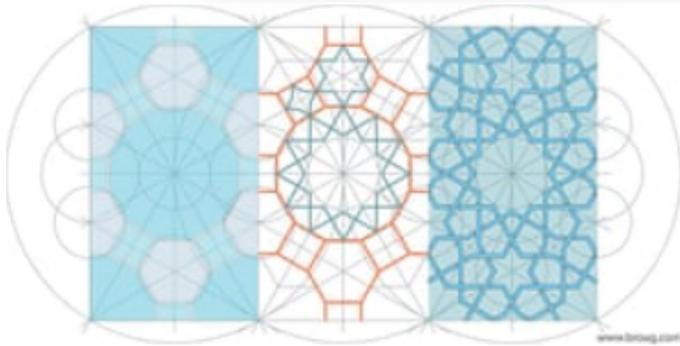
UBD Unit: [Research Skills, Grades 6-8](#)

Essential Questions: How do I locate access, and choose information resources in the library and from the library website? What strategies can help me evaluate the quality of my research sources and determine which sources to use in my research? How do I interpret information to develop new understandings? How can I avoid plagiarism and use information and resources ethically and legally? How can I incorporate new information into unique projects? What strategies can I use with library resources to access and use information and sources? How can my research interests be reflected and explored through books?

Description of Unit: This Research Skills unit is designed to walk 6th and 7th grade students through the steps of a research project in a trimester. They will be choosing a "Genius Hour" research topic on an area of interest and going through the process of learning about how to gather and evaluate information, understanding what plagiarism is and how to avoid it through citing sources, giving credit and taking notes with original thinking. They will be producing a final project and a bibliography to share with classmates. This project may be a slideshow, a podcast or a video, depending on personal interests and time constraints.

Elements I included from the course in this unit: *Strategies for Summarization in Any Subject* by Wormeli for deeper student learning including: graphic organizers, annotating texts, think-pair-share, Analysis Matrix (p68), Venn diagrams, Similarities and differences graphic organizer (p70), Narrowing the topic graphic organizer (p74).

High School Teachers



Emily Allman

School and Grade Level or Course: Ipswich High School; Geometry

UBD Unit: [Foundations of Geometry](#)

Essential Questions: What is Geometry? How trustworthy are patterns? models? conjectures? How is truth related to logic?

Description of Unit: What is geometry? Why was it invented? Wait. It was invented? Yes. And developed. And expanding all the time. Geometry is how we measure our world, with tools that we can manipulate with our hands AND with logical tools that are 'all in our minds'. As we broaden our understanding of geometry, we increase our understanding of the universe around us... even the parts we cannot see. What do you think is the best way to measure the universe?

Elements I included from the course in this unit: This unit will incorporate hands on explorations, geometric constructions (both digital and physical), graphing, orchestrated discussions, and summarization strategies from the Blue Skies curriculum (sketchnote summaries, exclusion brainstorming (#WODB), graphic organizers, six word summary, meme creator).

I'm most looking forward to implementing: There's lots of great activities and investigations in this unit that I think the students will enjoy - classical constructions, the Circle Folding Introduction, the Counting Collections Task, and the Sector 51 Task... just to name a few. Being a foundations unit, it is a good place to explore the beauty and wonder of mathematics, which I hope the students will enjoy as much as I do. Would you like to visit? I'd love to welcome you into my classroom.

High School Teachers

Emily Chandler



School and Grade Level or Course:

Ipswich High School; Molecular Genetics

UBD Unit: [Wolbachia Labs](#)

Essential Questions: How do bacteria, such as Wolbachia, enhance and degrade the lives of organisms? How can we manipulate DNA in the lab to answer ecological questions? How do we troubleshoot our protocols when we don't achieve the desired result?

Description of Unit: The Molecular Genetics course is a semester long class for 11th and 12th grade students. This unit covers the first quarter laboratory work for the course, during which students will use molecular genetics techniques (DNA isolation, PCR, gel electrophoresis, and DNA sequencing) to determine if a variety of insects collected in Ipswich contain Wolbachia pipientis, a symbiotic bacterium. In doing so, the students will contribute to The Wolbachia Project, an international research group, led by the Bordenstein Lab at Vanderbilt University, that is identifying the abundance and distribution of W. pipientis in arthropods.

Elements I included from the course in this unit: I incorporated feedback from my colleagues on my essential questions, Successful Habits of Mind, and instructional techniques to engage all learners. From Upgrade Your Teaching, I identified that their recommended Process Guides are similar to the protocols I will use with the students for each lab.

I'm most looking forward to implementing: I'm looking forward to my students getting the opportunity to learn hands on molecular genetics techniques that they could use in their college science courses or in laboratory jobs. Additionally, I believe the students will be excited to participate in real-life science by contributing to the data collected by The Wolbachia Project on the abundance and distribution of W. pipientis.

High School Teachers

Greg Chmura



School and Grade Level or Course:

Ipswich High School; AP Biology

UBD Unit: [Ecology](#)

Essential Questions:

1. How does diversity among and between species in a biological system affect the evolution of species? 2. How does the acquisition of energy related to the health of a biological system? 3. How do communities and ecosystems change, for better or worse, due to biological disruptions? 4. How does a disruption of a biological system affect genetic information storage and transmission? 5. How do species interactions affect the survival of an ecosystem?

Description of Unit: Ecology is the focus of the students summer assignment text reading and independent lab work. Students read and complete reading guides for chapters 51-56 in the textbook. Students also conduct an independent animal behavior study and develop a miniposter to share their work with their fellow classmates in September. Students also read a book titled, "The Secret Lives of Lobster" and participate in a guided book discussion in September. This unit utilizes 14 high school class periods (70 minutes), one three hour evening lab period, one all day field trip to three local ecosystems.

Elements I included from the course in this unit: The College Board has developed an online formative assessment tool that students will use to provide feedback to each student and their instructor prior to the unit exam. Cooperative classroom poster assignments involving course objective will be employed throughout the learning experience.

I'm most looking forward to implementing: Students presenting their summer independent animal behavior studies in the first week of the course is always an exciting way to engage the learning about organisms and their ecology at the beginning of the course!

High School Teachers

Claire Powers & Justine May



School and Grade Level or Course: Ipswich High School; Grade 9

UBD Unit: [Freshman School Counseling](#)

Essential Questions: What opportunities are available to me at Ipswich High School? What tools can I use to organize myself? What if I struggle with my academics? What do I have to do to have the opportunities I want after high school? Why is it important to me to learn about post-secondary options? How can I explore careers?

Description of Unit: This two-class seminar series is aimed at introducing freshmen to the guidance department, the resources available at the high school, and the tools they can access to explore college and career readiness. The first seminar will focus on graduation requirements, study habits, student expectations, and where to go for help. The second seminar will utilize Naviance to walk students through the process of goal setting, building a resume and exploring career interests. Additionally, we will address course options available for sophomore year and beyond.

Elements I included from the course in this unit: Feedback from Colleagues; summarization Strategies; goal-Setting Activities

I'm most looking forward to implementing: We look forward to connecting with freshmen early in the school year to ensure they understand the resources, support, and strategies available for them to navigate their high school experience and post-secondary planning.

High School Teachers

Gail Pepe



School and Grade Level or Course:

Ipswich High School; Visual Arts, Grade 12

UBD Unit: [How It All Works / Unit 1 Scaffolding and the Creative Process](#)

Essential Questions: How can I prepare myself to be creative and what do I need to make it happen?

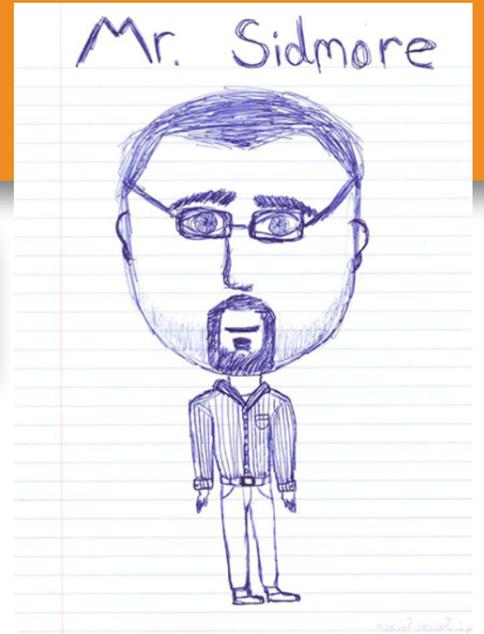
Description of Unit: This curriculum Unit 1 outline is designed for this school year only. We are in the process of establishing a Visual Art and Media Art curriculum that will offer additional opportunity for intermediate and advanced art students. Our goal is to improve the Visual Arts Departments' "Pathways", ie; create new prerequisites in Visual Literacy and Mixed Media, offer informational sessions describing the Visual and Media Art Pathways, and create a new Studio/Portfolio, 5 credit AP/Honors Class.

Elements I included from the course in this unit: Teacher as skill builder, facilitator, and coach. Advanced Organizers. Backward Summaries. and Point of View.

I'm most looking forward to implementing: That this unit will improve students skills and increase their likelihood that they will be self-directed and ultimately highly productive.

High School Teachers

Timothy Sidmore



School and Grade Level or Course:

Ipswich High School; English Language Arts 10

UBD Unit: [Editorial Writing](#)

Essential Questions: Why is a free press essential to democracy? How do rhetorical appeals enhance an argument? Why is debate important to society? How can MY voice make an impact?

Description of Unit: This project based unit is designed to engage student voices through an authentic writing task. After a multi-week study of real word editorial models, students will research self-selected topics and craft original editorial arguments. The unit culminates with all students submitting their work to the New York Times Student Editorial Contest.

Elements I included from the course in this unit: Six-word Memoir, visual summary, Word Walls, Summary Statement Wall, "PQRST=Preview, Question, Read, State main idea, Test yourself," "RAFT=Role, Audience, Format, Time or Topic"

I'm most looking forward to implementing: Students flourish when given the chance to choose topics they are passionate about, and know they are writing for an real audience. I'm excited to watch students struggle to master the editorial form, and produce work they're proud to submit to a national contest.

High School Teachers

Andrew Sargent



School and Grade Level or Course:

Ipswich High School; AP Language & Composition

UBD Unit: [Unit 2: Introduction to Argument](#)

Essential Questions: Why is it important to understand argumentation? (What are the benefits? How can I use this?). What makes an argument effective/persuasive? What responsibility do we have to be fair and reasonable in our arguments? How is the United States an ongoing argument? (Core course question with sub-questions, e.g., What is the relationship between individual and society?).

Description of Unit: In this unit for AP English Language and Composition, a college-level course in rhetoric (the art of persuasion) students learn how to analyze and construct arguments. They read multiple professional essays as they develop a set of specific skills, then develop their own arguments on a range of topics. The unit culminates with an AP-style timed argument essay and a contest essay on a topic important to them.

Elements I included from the course in this unit: Fine-tuned my enduring understandings and essential questions; revamped skills to more closely align with new AP skills standards; adjusted my learning plan to include a range of activities that would build students' skills and help them transfer those skills to the summative assessments (and ultimately to the AP exam and future classes).

I'm most looking forward to implementing: I'm most looking forward to seeing my students develop the "moves" that make up thoughtful argumentation and those moments when students realize the power of their words to influence others.

High School Teachers

Molly Smith



School and Grade Level or Course:

Ipswich High School; AP US History

UBD Unit: [Unit 1: Cultures Collide](#)

Essential Questions: What happens when cultures collide? What effects did the three worlds (Native Americans, Europeans, and Africans) colliding have on development in North America?

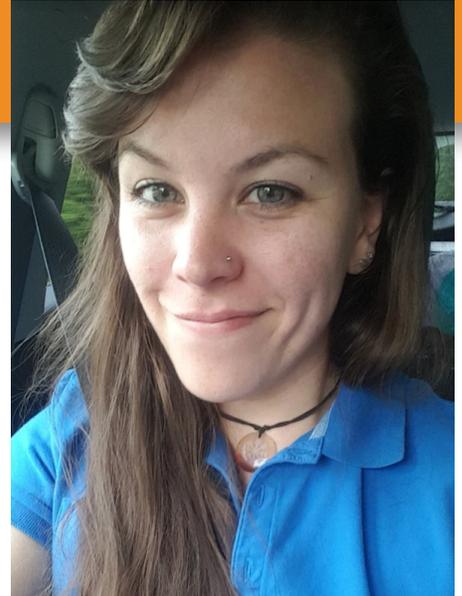
Description of Unit: Students will start this unit by considering what historians do, setting the stage for the rest of their AP US History journey. Topics covered in this unit include the arrival of Christopher Columbus, the transition of goods, ideas, and diseases through the Columbian Exchange and the European struggle to get their fledgling colonies off the ground. Students will also begin to practice AP writing skills as they interact with a variety of primary source documents.

Elements I included from the course in this unit: Summary techniques including: Making Notations strategies for reading; Carousel Brainstorming; Jigsaws; Inner/Outer Circle.

I'm most looking forward to implementing: I'm looking forward to introducing AP writing skills to my students.

High School Teachers

Alysha Elliard



School and Grade Level or Course:

Ipswich High School; Digital Photo I

UBD Unit: [Unit 1 - Basically Me](#)

Essential Questions: How can we change our own perspective to see the world in a different way?

How does digital photography provide me with a voice to express myself or my thoughts?

How can I use manipulative software in order to better express my ideas?

Description of Unit: This is the first unit in the digital photography 1 curriculum. It introduces new ways of thinking and viewing, as well as necessary technical skills to be successful in the curriculum and future classes.

Elements I included from the course in this unit: Summary strategies from reading; suggestions from colleagues.

High School Teachers

Ginger Fritz



School and Grade Level or Course:

Ipswich High School; AP US Government & Politics

UBD Unit: [Unit 3: Political Participation](#)

Essential Questions: Why do levels of participation and influence in politics vary? How effective are the various methods of political participation in shaping public policies?

Description of Unit: Students study the ways in which citizens interact with the government and influence policy making. While learning and reading about elections, political parties, interest groups, and the media, students organize a presidential campaign that culminates in an election.

Elements I included from the course in this unit: Summarization techniques such as analogies and metaphors, 6 word memoirs, and carousel brainstorming.

I'm most looking forward to implementing: The campaign project! And hopefully skyping with some campaign advisors working on 2020 campaigns.

High School Teachers

Bill Gallant



School and Grade Level or Course:

Ipswich High School; Engineering

UBD Unit: [Gumball Machine - Engineering the Future](#)

Essential Questions: How do engineers solve problem? What is the role of failure in design? How does mass production reduce the cost of products?

Description of Unit: This unit is the first projects for most students in the Technology/Engineering program. Beyond manufacturing gumball machines, the goal of this unit is for students to understand and apply the Engineering Design Process as a structured problem solving model.

Elements I included from the course in this unit: Added a project planning requirement related to self management. Added a project and teamwork rubric for students to evaluate their work.

I'm most looking forward to implementing: Establishing expectations for project work.

High School Teachers



Brendan Hughes

School and Grade Level or Course: Ipswich High School; Algebra 2

UBD Unit: [Quadratics & Intro to Functions](#)

Essential Questions: Why should we care that we can rewrite quadratic expressions in multiple forms? How do we factor algebraic expressions, especially quadratics? How do we know which form of a quadratic expression is the most reasonable for a certain situation? How do transformations of functions apply to the world around us?

Description of Unit: This unit explores the topic of quadratic equations, and introduces students to key features of functions. An emphasis on reasoning, writing, and discourse in this unit allows students to enhance their mathematical thinking. Students will use a variety of multimedia such, as the Desmos graphing app and activity builder, to explore these quadratic equations and functions.

Elements I included from the course in this unit: Summarization techniques gained from the course text and feedback from colleagues

I'm most looking forward to implementing: Almost everything! I will be formally digging into a full quadratics unit for the first with my algebra 2 students and I'm excited to have this already mapped out.

High School Teachers

Sarah Latimer & Susan Warner



School and Grade Level or Course: Ipswich High School; Biochemistry

UBD Unit: [Biochemistry Unit 1](#)

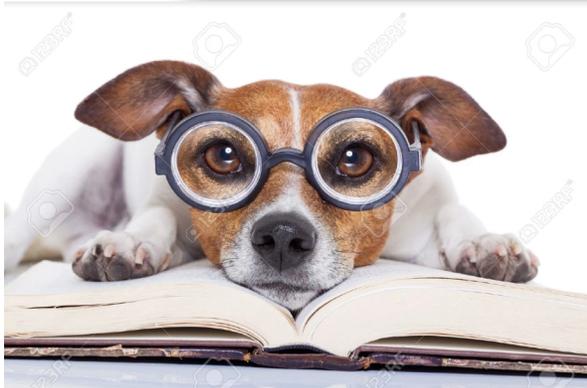
Essential Questions: In the future, what will be the scientific discoveries about life? How do the emergent properties of living organisms originate from nonliving matter?

Description of Unit: This is a new class, incorporating our CP1 support level into two CP2 level classes. Students will learn basic biochemistry and organic molecules. There is an additional emphasis on the processes of science, commensurate with the 2016 MA Frameworks.

Elements I included from the course in this unit: What we've incorporated: Summarizing, brain-friendly techniques such as transfer (in one case, through an activity that involves students relating chemical bonding to human relationships).

I'm most looking forward to implementing: Working with the students and seeing them gain self-confidence and further knowledge about the world of Biology through investigation and labs.

High School Teachers



Rebecca Slawson

School and Grade Level or Course: Ipswich High School; English 9H

UBD Unit: [Nonfiction Coming of Age Choice Unit](#)

Essential Questions: How does reading stories about others' lives allow us to better understand our own? How do stories reveal individual and societal values and priorities? How do individuals cope with personal challenges? What strategies do nonfiction storytellers use to create an engaging story?

Description of Unit: Choosing from a selection of nonfiction titles, students will explore the lives and experiences of young people from around the world who have struggled to overcome challenges and persevere through difficult circumstances. Working in literature circles will allow them to engage in a diverse set of differentiated learning experiences while building critical reading skills, developing their ability to collaborate and supporting their efforts to build a sense of personal accountability. Students will be able to demonstrate their growth and learning through both written and verbal assessments.

Elements I included from the course in this unit: Research on the neuroscience of learning provided a great deal of support for structuring this unit. The structure of the Lit Circles lends itself well to the AMT model put forward in the book by providing students with opportunities to acquire basic knowledge, manipulate it and then transfer it to their ongoing work with the text. The video game model also provided useful reminders regarding the importance of embedding the unit with formative assessments.

I'm most looking forward to implementing: I can't wait for kids to discover these books. The stories are rich and wonderfully engaging. My students are going to love them!

Course Instructor

Tracy Wagner



Tracy Wagner is the Director of Teaching and Learning for Ipswich Public Schools. She has served as a teacher, administrator and educational leader for the past twenty plus years, including at Harvard University, Boston Public Schools and the Madison Metropolitan School District in Madison, Wisconsin. In Ipswich Public Schools, Tracy is proud to support and guide faculty in standards-based curriculum development, assessment, instructional techniques and pedagogy as she builds learner-centered professional development for the district. Originally a farm girl from northern Wisconsin, Tracy now holds a Masters in Education from the Harvard Graduate School of Education and a B.A. in English as well as teaching certification from the University of Wisconsin-Madison. Tracy is especially interested in Project-Based Learning, STEAM, transdisciplinary learning, teacher leadership and Habits of Mind. She lives in Medford, Massachusetts with her partner Kris, son Grant and a whole lot of books, gardening tools and Star Wars Legos. You can follow her at @twagnerIPS.

Special Thanks to:

Brian Blake, Superintendent of Ipswich Public Schools

The IPS Leadership Team

Nicole Dziadose, Secretary to the Office of Teaching and Learning

Everyone at Ipswich Town Hall

IPS School Committee