A 21ST CENTURY CURRICULUM

NVESTIGATOR

AL DESIGNER

Reading & Writing in a Digital Age

Educurious English Language Arts units use social media, multimedia, and real-life collaborations to engage students in meaningful and contemporary learning. Students deconstruct challenging text and write substantial pieces in a range of genres as they construct compelling, relevant projects.

CHARTING CURRENT CONTROVERSIES

Today, students are bombarded with information from a number of sources on an amazing array of topics-both big and small. In Charting Current Controversies, students develop sound arguments and informed opinions using a wide variety OPINION MAKER

of resources from digital text and video to books and magazines. They analyze argu-

ments in op-eds, legal rulings, editorial cartoons, and mini-documentaries for perspective, reasons, and evidence. They identify

and build counterarguments, have the opportunity to conduct collaborative research, and write an informed opinion on a controversial topic of their own choosing. When students complete this unit, they are able to answer the question: Why are some arguments taken up by others and thought of as sound, while other arguments go unheard or are dismissed?

IMAGINING NEW WORLDS

For centuries, authors of dystopian fiction have created important cautionary tales to make us rethink our perspectives on privacy, ethics, and justice. Imagining New Worlds offers students an opportunity to explore how authors use dystopian fiction as a vehicle for making social commentary about contemporary society. After reading several examples of dystopian fiction, students write a comparative essay that analyzes how different authors use the genre for social commentary and how effective they were at conveying their message. The unit culminates in a group project where students make their own social commentary by writing and directing a short film set in a dystopian world.

APPROACHING AMAZING ART

What does art tell us about ourselves and our cultural values? How can we use different artistic expressions to articulate our views on social justice? In Approaching Amazing Art, students read informational texts that examine social movements through the lenses of different artistic representations such as graffiti art, murals, propaganda posters, jazz music, and poetry. Students look at how these movements and forms of artistic

expression challenge us to consider how we think about the world around us. The unit culminates with a collaborative art project representing the students' collective concern and commitment toward social change, evidenced by action research and declared in an exhibition statement.

PICKING UP THE CLUES

How do writers and film directors bring readers or audiences

to the edge of their seats? How do they make us want to read or watch-on, often while making us want to run away? In *Picking Up the Clues*, students play with the alchemy of suspense by first analyzing how it is constructed in contemporary and classical fiction, and then by infusing it into their own creative suspense narratives for publication and scripts for video production. The unit exposes the students to the work of Edgar Allen Poe, unlocking strategies for approaching challenging text and revealing how Poe's work has influenced suspense-filled genres today. Students also participate in a transmedia mystery in which characters in a social network undergo a parallel plot with the Poe short stories that are being read in class. The characters provide links to informational texts about Poe's life and to original correspondence between Poe and his contemporaries.

INVESTIGATING SCIENCE THROUGH STORY

How do we make complex and current science content relevant, accessible, and personal? In Investigating Science Through Story, students deconstruct the genre of creative nonfiction using Rebecca Skloot's The Immortal Life of Henrietta Lacks and articles from the Creative Nonfiction journal. Students research, investigate, and evaluate a personally relevant scientific topic to compose a piece of creative nonfiction modeled after Skloot's text. Throughout the unit, students engage in the important practice of revision. They also develop interview skills, engage in genre study, and participate in peer review. As a final project, students turn their scientifically rigorous, personally and community relevant creative nonfiction piece into either a vod/podcast, a children's book, or an article for a class 'zine.

Engaging in 21st Century Biology

Biological research is in the midst of a revolutionary change as it becomes more interdisciplinary. Using a social media, project-based learning approach allows learners to productively participate in contemporary biology.

ENVIRONMENTAL & HUMAN HEALTH

In Environmental & Human Health, students explore a field of biology that affects all of us, wrestling with two big questions: How can we use plants and other living things to remove toxins from our environment? Where do these environmental contaminants come from and how do they affect us? By designing and conducting novel experiments around these questions, students contribute to the scientific knowledge base around the use of bioremediation to remove toxins from the environment. They share their results with scientists and their community via a multimedia digital journal.

CONTEMPORARY APPROACHES TO GENETICS

How do genetics and the environment interact to impact human health? How do scientists use DNA technology and multi-player gaming to solve related problems? In *Contemporary Approaches*

to Genetics, students explore cutting edge approaches to research in the fields of genetics, genomics, and evolutionary biology through: (a) planning and carrying out a DNA bar-coding investigation of a species identification problem of their choosing; (b) competing in protein folding puzzles that address current research problems; and (c) understanding the curent state of personal genetic information and the ethical issues related to its widespread availability.

EXPLORING THE DIVERSITY OF LIFE: PAST. PRESENT AND FUTURE

What can fossils and DNA evidence tell us about biodiversity and evolution? How are organisms related? How can we represent relationships between organisms? In Exploring the Diversity of Life, students sort fossils and examine DNA evidence to investigate these questions. Then, students choose to research either fossils or DNA evidence to solve mystery about whale evolution. Students use multiple lines of evidence to help them create a phylogenetic tree that combines the evidence from the past (fossils) and the present (DNA) and create scientific posters to share their findings.





PREDICTING & PREVENTING INFECTIOUS DISEASE

Have you ever wondered how infectious diseases constantly outsmart us and continue to threaten human populations around the globe? What is it that causes us to get sick? In Predicting & Preventing Infectious Disease, students explore transmission of infectious pathogens from the cellular to the global level by leveraging interdisciplinary techniques. Specifically, students explore immune system structure and function, as well as concepts associated with virology and vaccines. As part of the infectious disease module, students engage deeply with software tools and data analysis techniques developed and currently used by scientists (e.g., social network analysis of infection between people and computational modeling of disease transmission across locations).

THE ECOLOGICAL IMPACTS OF CLIMATE CHANGE

How do scientists study climate change? What are the ecological impacts of climate change? Through fieldwork, lab experiments, and GIS data visualization, The Ecological Impacts of Climate *Change* asks students to design and conduct investigations into how predicted climate change impacts will affect local and global ecosystems. As they explore the ecological impacts of climate change, students contribute to a national citizen science effort and create an infographic that highlights scientific evidence for climate changes, impacts on species and their ecosystems, and why students think people should care about climate change.

of our assessment s students earn badges as recogr progress associated with project performance within and across the units. Each badge demonstrates specific skills and competencies and is awarded by teachers, Experts , and, in some cases, a student's peers

etailed syllabus for any unit or or more information about Educurious courses