Greensburg Community Schools

"All About Learning"

Greensburg, IN

Digital Learning Initiative

Vision

Greensburg Community Schools' digital learning initiative will engage our students in the continuous development of cognitive rigor in academic content as they transition from users of technology products to makers of technology products.

Mission

Greensburg Community Schools' digital learning initiative will work to build a seamless integration of technology and academic content to prepare our students with foundational skills for college and career readiness. Moving from users of technology to makers of technology our students and staff will access resources beyond the walls of the classrooms to participate as global learners and leaders.

Philosophy of Digital Learning Initiative

- Meet the curricular needs of our students by using technology as a vehicle
- Develop cognitive rigor by providing students with tools to dig deeper into content
- Provide digital skill set that develops college and career readiness
- Assist students by providing a pathway for educators to meet the individual needs of learners
- Develop learners with a global perspective
- Allow learning to take place anytime and anywhere

Research

Educators and administrators have visited several school districts that have already implemented a 1-to-1 initiative as well as attended several technology conferences in order to make informed decisions about our own 1-to-1 initiative. With this background knowledge we will be able to select the best ideas that will work for Greensburg Community Schools.

Device

Educators and students are currently piloting a variety of digital devices to determine the best fit for our classrooms.

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1-to-1 Student Guidelines

Digital Device at School

- Students are responsible for bringing their digital device fully charged.
- Students will use their digital device as directed by the educator in the classroom.
- A digital device will be issued to each student. Students should not share or swap their devices as they alone are responsible for the care and use of the device.
- Passwords are confidential. Students should not share their password.
- Students are responsible for saving their work to an appropriate location; i.e. Google Docs, computer disk storage or portable flash drive.

Home Usage of Digital Device

- Every attempt will be made to block access to inappropriate material while the device is at school. Parents or guardians are responsible for monitoring usage at home.
- Students are responsible for the charging of their device in preparation for the school day.
- Parents/guardians are not authorized to attempt repairs themselves, or contract with any other individual or business for the repair of the digital device. Greensburg Community Schools will provide a loaner device if the student's device is non-functional.
- Lost or stolen digital devices should be reported to the proper authorities and Greensburg Community Schools immediately.

Use on the Internet

Appropriate digital citizenship will be observed at all times. Students will be given direct instruction regarding the acceptable practices of a digital learner and user.

General Use and Care of the Digital Device

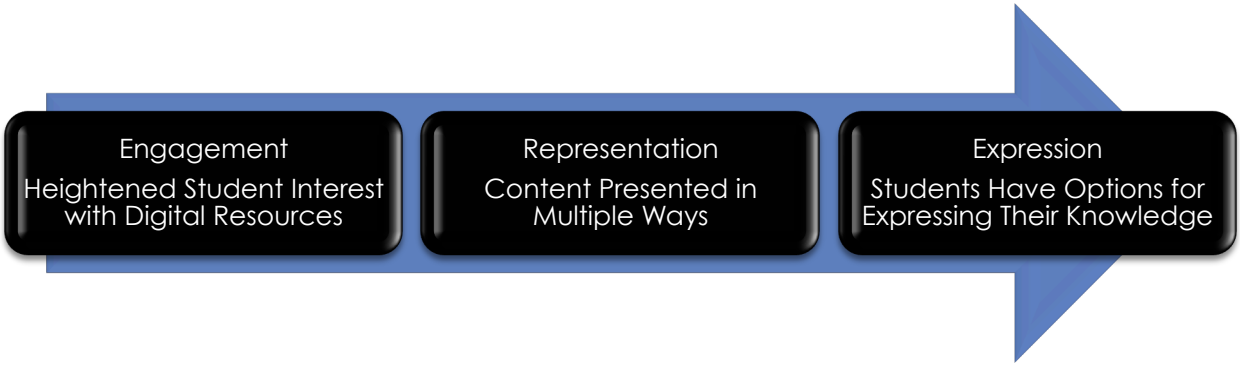
Students will be given direct instruction regarding the acceptable practices of a digital learner and user.

Consequences of Inappropriate Use

The use of any technology is a privilege and not a right. Students are expected to use their computer in accordance with the 1-to-1 Student Guidelines. Inappropriate use of technology will be subject to the consequences as outlined in school discipline policy.

Scaffolding Content

Scaffolding content allows educators to promote deeper learning by providing support during the learning process that is tailored to the needs of individual students. Integrating technology will provide multiple means of engagement, action and expression, and representation. Our lessons will enable students to move from passive consumers of content and technology to active creators of products that show understanding and application of new knowledge.



Collaborative Learning

Collaborative learning encourages students to interact with one another to share information and ideas. Team collaborative activities include study sessions, writing, project- or problem-based learning, problem-solving and interactive debates.

"Bruner, Vygotsky, and Piaget all embrace the philosophy that humans do not learn in a vacuum but rather through interaction."

Conrad, R.M., & Donalson, A. (2004). *Engaging the online Learner: Activities and resources for creative instruction. San Francisco: Jossey-Bass.*

- Google Docs
- Today's Meet
- Blogs
- Wikis
- Diigo
- Minecraft
- Glogster
- Evernote

Differentiated Instruction

Differentiated instruction provides student learners with "…different avenues to acquiring content, to processing or making sense of ideas, and to developing products so that each student can learn effectively."

> Tomlinson, C. A., (2001). *How to differentiate instruction in mixed-ability classrooms.* (2nd Ed.) Alexandria, VA: ASCD.

- Flipping Classrooms
- Engaging non-traditional learners using digital tools
- Developing learning platform for English Language Learners
- Blending learning environments
- Implementing Project-based learning
- Supporting gifted learners
- Meeting students where they are
- Allowing for do-overs
- Deploying Assistive Technology

Engaging Students in Authentic Learning

Non scholae, sed vitae discimus - We do not learn for the school, but for life. – Seneca

Authentic learning motivates students to learn new content and skill when what they are learning has application to real-life. Students with authentic skills will be college and career ready.

Technology integration will allow learners to experience authentic learning via project-based learning.

- Match as closely as possible the activities of professionals
- Participation of students in definition of learning goals and products
- Investment of time is measured in days or weeks
- Multiple possible perspectives may exist
- Collaboration with peers and experts
- Include cross-curricula elements
- Learning products are polished and shareable
- There is more than one possible solution

Sample Lessons

Lesson Development

Content learning will be augmented with technology strategically selected to develop student understanding and application of learning goals.

Technology will be used to develop deep student engagement in lessons by scaffolding students in their zone or proximal development. Csikszentmihalyi calls this high level of engagement "flow".

> A high level of work orientation in students is said to be a better predictor of grades and fulfillment of long-term goals than any school or household environmental influence.
>
> Wong, Maria; Mihaly Csikszentmihalyi (1991). "Motivation and academic achievement: The effects of personality traits and the quality of experience". *Journal of Personality* 59.

Educators will begin implementing changes to lessons to incorporate the grade level elearning goals defined by the elearning grade level rubric.

Standards	8th Grade	7th Grade	6th Grade	Novice
Creativity and Innovation	Students are able to create: • Publishable web content (Example: blog post, how-to instructions) • Spreadsheets • Publishable presentations	Students are able to create: • Formatted documents including links, embedded videos • Forms to collect data • Spreadsheets with scatter plots that can be imported to documents and annotated • Presentations using Apps (Examples: Powtoon, Glogster, Prezi…)	Students are able to create: • Formatted Document – including tables, added images • Spreadsheets with pie and bar charts that can be imported to documents and annotated • Presentations with images • Flowcharts and annotated drawings using drawing tool	Students are able to: • Access teacher created material on Google Drive • Create documents • Annotate teacher created documents (Example: images provided to student to develop visual literacy)
Communication and Collaboration	Students able to communicate and collaborate by: • Creating an educational resource to share with the GCS community	Students able to communicate and collaborate by: • Creating a presentation with 1-2 classmates and share with class	Students are able to communicate and collaborate by: • Responding to prompts in teacher created google doc • Sharing a google doc with 1-2 classmates for collaboration on a polished document	Students are able to: • Collaborate offline using Kagan strategies - http://mbcurl.me/ZF74
Research and Information Fluency	Students can access digital information by: • Using and creating social bookmarking to share sites with collaborating groups (Example: Diigo – knowledge management tool) • Effectively annotating shared websites rating reliability and importance	Students can access digital information by: • Evaluating the reliability of websites • Accessing websites via teacher created social bookmarking site (Example: Diigo – knowledge management tool)	Students can access digital information by: • Identifying sub-categories, synonyms before searching • Understanding URL extensions and their meaning • Filtering results by reading level	Students are able to: • Use address bar to navigate directly to websites recommended by teacher • Skim and scan website for specific information • Close read website for author's purpose and summarize learning / respond to teacher prompts
Critical Thinking, Problem Solving, and Decision Making	Students are able to: • Work as a team to collaborate on an ill-defined question that has opposing points of view. • Use a project management tool selected by students	Students are able to: • Work as a team to collaborate on systematic research to answer question • Use a project management tool selected by teacher	Students are able to: • Ask a question and develop a systematic process for finding answers • Comfortable with a question that has more than one right answer	Students are able to: • Ask a question and assist teacher in developing a systematic process for finding answers
Digital Citizenship	Students are able to: • Understand the impact of their digital footprint • Understand fair use as a user and a creator • Understand the some "free" tools are not private	Students are able to: • Identify scams and schemes • Reflect on their digital image and what it tells the world	Students are able to: • Identify the how and why of protecting their digital self • Cite sources to honor the creator of data • Recognize that digital images can be altered	Students are able to: • Identify judge harmful and hurtful messaging • Identify solutions for dealing with cyberbullying
Technology Operations and Concepts	Students are able to: • Select the appropriate application for the job – expand scope to digital publishing tools	Students are able to: • Select the appropriate application for the job – expand scope to google apps, other digital tools to produce media based projects.	Students are able to: • Select the appropriate application for the job – limit scope to google doc, spreadsheet or presentation	Students are able to: •

Notes: A novice is not intended to imply that elementary teachers are required to provide pre-requisite skill sets for junior high students. A novice indicates prior knowledge that students should have mastery of before moving forward. These may be Pirate+ skills sets for the 1st 9 weeks. Grade level expectations should be taught for mastery. The 7th graders should be able to do everything listed in 6th grade without further instruction and 8th graders should not need review of 6th and 7th grade learning outcomes. A vertical articulation should be agreed upon by all grade levels.

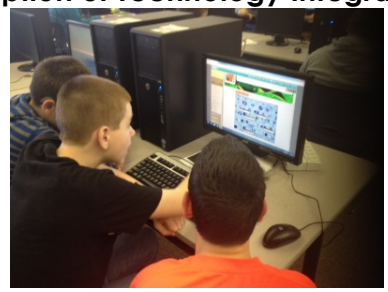
Science

Mitosis

Content Goals

Students will demonstrate understanding and application of science standard 7.3.5 - Explain that cells in multicellular organisms repeatedly divide to make more cells for growth and repair.

Description of Technology Integration



Students will participate in an online inquiry project where they learn about mitosis through the context of cancer. Digital citizenships skills are practiced with the opportunity to share comments and reflections with their classmates.

http://wise.berkeley.edu/

Students will demonstrate their understanding of mitosis by creating stop action videos using clay to model each of the phases of the cell life cycle.

Measureable Outcomes

Check points throughout the online inquiry program. Completion of the mitosis video.

Differentiation

The online inquiry project engages students using multiple modalities via rich media and interactive simulations. Embedded scaffolding tools help students gain fluency in understanding of abstracting information from various representations.

Resources Required

- Professional development – Online project, movie maker software
- Computer to complete the online inquiry project.
- Camera to create stop action photos.
- Computer to create video from stop action photos.

Assessment

Administration of short-cycle assessment for Indiana science standard 7.3.5 - Explain that cells in multicellular organisms repeatedly divide to make more cells for growth and repair. Students will demonstrate understanding of mitosis.

Social Studies

Geography and Economics

Content Goals

Students will demonstrate understanding and application of social studies standards 8.1.6, 8.1.8, 8.1.9, 8.2.1, 8.3.3, 8.3.5

Description of Technology Integration

Students will demonstrate their understanding of the dynamics of a new country using digital and tangible resources. (Click here to view the 'Create Your Own Country' project details)

Measureable Outcomes

The Create Your Own Country Project is a great way for students to work collaboratively and understand how difficult it was for our founding fathers to build the country that we live in today. This project is designed to compile all of the information that you have learned regarding The Articles of Confederation, U.S. Constitution, Bill of Rights, Foundation of American Government, Political Parties, and the economy and geographic features of the United States to create a country that is truly your own. You will design the country from the dirt that your people will settle on.

Differentiation

The students will use reading level Google tools to access resources appropriate for their level of readiness. Suggested websites with multiple means of representation, including; videos, text and graphics will be provided.

Resources Required

- Professional development – available digital tools
- Computer to research geographic and economic conditions of the region.
- Students share research with classmates 2-3 class periods.

Assessment

Rubric (Click here to view rubric)

Student Sample Work

Most projects incorporated a variety of tools to complete all aspects of the project. This video represents one portion of a completed project. As the video was presented by the student group, a narration and tangible artifacts were used to supplement the digital rendering of the country. The use of mixed media resulted in high levels of engagement and student decision making – what is the best tool for the job. This video was created using Sims 3.

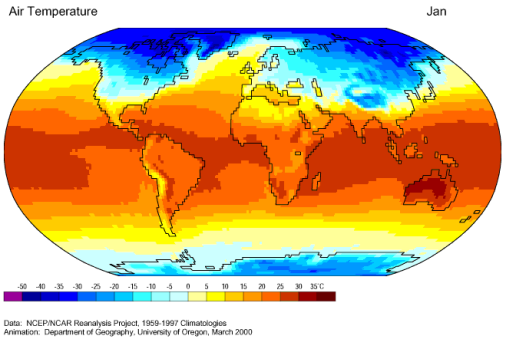
Click the Pirate to view student sample or click here to view the sample online

Math

How Cold Is It?

Content Goals

Students will demonstrate understanding and application of Math CCSS 8.EE.5, 8.F, 8.SP– Use Google Earth to find the latitude and elevation of several locations and web resources to find the historic high and low temperatures for January. Can you predict the average temperature of a location based on its latitude?



Description of Technology Integration

Students will demonstrate their understanding of data collection and by using Google Earth to find several locations with different latitudes and elevations. Spreadsheets will be used to collect data and calculate the mean temperature using the historical data. Graphs will be created from the data table.

http://www.learner.org/jnorth/weather/ClimateTempPrecipWksht1.html

Measureable Outcomes

Completion of data collection, calculation of average temperature and graph. Students are able to describe their findings using the graph. Students will identify outliers and complete further research if needed to determine why these outliers exist.

Differentiation

Locations may be preselected.

Resources Required

- Professional development – Google Earth, spreadsheets.
- Computer access for 3 class periods to find locations with various latitudes using Google Earth and historic highs and lows for January.
- Computer access for 2 class periods to great graph and research outliers.
- Computer access for 1 class period to write a summary of graphed data.

Lesson based on sample found at - http://www.yummymath.com/2012/it-sure-is-cold-out-or-is-it

Assessment

Administration of short-cycle assessment for Math CCSS 8.EE.5, 8.F, and 8.SP - Students should be able to graph data from a table and interpret results.

ELA

Famous Americans

Content Goals

Students will demonstrate understanding and application of ELA standards 7.RL.2.2, 7.RL.2.3, 7.SL.4.2

Description of Technology Integration

Students will demonstrate their ability create engaging presentations that include multimedia components and visual displays to clarify claims and findings and emphasize salient points about a book selection of their choice using digital tools of choice.

Measureable Outcomes

Student's ability to create an organized presentation accurately representing details from the book selected for report.

Differentiation

Books are self-selected with the advice of the teacher.

Resources Required

- Professional development - identification of resources
- Computer access to create presentations with the digital tools.

Assessment

Student presentations showing in-depth knowledge of their book.

Student Sample Work

This student learned about Alice in PLTW (Project Lead the Way). Alice is a free program from Carnegie Mellon University designed to use 3-D animation to teach students the fundamentals of computer programming. The student used his programming skills to create a short video to share the main points from the book read.

Click the Pirate to view student sample or click here to view the sample online