

Emerging Technologies

UNIT 1: Information and Technology Tools



ESSENTIAL QUESTION

How are Information and Technology Tools important to business?

BIG IDEAS

Students will:

- Create professional communications.
- Demonstrate proficiency in digital organizational tools.
- Evaluate the effectiveness of web based tools.
- Apply technology to write, present, and create.

GUIDING QUESTIONS

- **Content**
 - What technology tools are utilized to enhance productivity in the digital world?
 - What digital tools best fit my desired outcome?
 - What is the smartest way to pair technology with productivity?
- **Process**
 - How do you leverage technology for improved business operations?
 - How are ideas best conveyed through technology?
- **Reflective**
 - Why do businesses value technically competent employees?
 - Why is it important for employees to be able to utilize different types of information and technology tools?

FOCUS STANDARDS

- **Standard 1** - Utilize information and technology tools to conduct business effectively and efficiently.
 - Improve internet navigation skills in accessing information.
 - Evaluate the validity and authenticity of a website.

- Practice effective usage of online resources for professional communication i.e., email and social media.
- Create a digital portfolio (e.g., Website, blog, etc.) and include all projects created during the class.
- Explore Freeware available on the Internet (e.g., Open Office, Google Apps, Gimp, etc.)
- Use cloud computing to improve productivity by designing, saving and uploading documents in an online account. (e.g. Dropbox, OneDrive, Dropittome, iCloud, etc.)
- Use online collaboration tools such as calendar, document and presentation sharing, etc.
- Explore the benefits of social networking as a business tool, including professional portfolios, blogs, privacy settings and safety issues.
- Understand the personal and business use of “apps” on digital devices.
- Understand the function of application software.
- Use and understand file conversion software to convert multiple types of files.
- Save documents as .pdf to maintain the integrity and increase accessibility when sharing.
- Demonstrate the research skills necessary to identify and evaluate emerging technologies.
- Seek and identify sources of information on new technology.

DISTRICT-PROVIDED RESOURCES

- Canva
- WeVideo
- Adobe Creative Cloud
- MacBook Air Devices

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UNIT 2: Ethical and Legal Issues



ESSENTIAL QUESTION

Why is understanding ethical and legal issues necessary for success?

BIG IDEAS

Students will:

- Understand and apply copyright restrictions.
- Understand and apply the fair use doctrine.
- Analyze and evaluate how to protect their online privacy.

GUIDING QUESTIONS

- **Content**
 - What copyright and trademark laws do I need to abide by?
 - What is intellectual property?
 - What is allowed under the Fair Use Guidelines?
- **Process**
 - How does the business world view my work?
 - How are intellectual property laws good for business?
 - How do you protect your privacy online?
- **Reflective**
 - Why is Artificial Intelligence impacting the ethical and legal landscape?
 - Why is establishing a code of ethics beneficial to the company and to the employee?

FOCUS STANDARDS

- **Standard 2** - Students will understand ethical and legal issues pertaining to business.
 - Evaluate components of acceptable use policies, code of ethics, and their role in a business environment.
 - Demonstrate ability to follow fair use and acceptable use policies on assignments/projects.
 - Understand the difference between fair use and acceptable use policy.

- Understand legal issues related to FERPA (privacy) and posting on the Internet.
- Understand how technology relates to trade secrets, Creative Commons, copyrights, personal information, and ethical employee behaviors.
- Be able to discuss the advantages, disadvantages, and prospects of current emerging technologies.

DISTRICT-PROVIDED RESOURCES

- Canva
- WeVideo
- Adobe Creative Cloud
- MacBook Air Devices

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UNIT 3: Audio and Video Applications



ESSENTIAL QUESTION

How are we influenced by the way we absorb information?

BIG IDEAS

Students will:

- Communicate through the utilization of audio and video applications.
- Apply the professional use of digital audio.
- Evaluate how video can enhance business communication.

GUIDING QUESTIONS

- **Content**
 - What tools can we utilize to convey a message?
 - What personal characteristics are critical for effective work performance?
- **Process**
 - How is a digital story planned and created?
 - How to choose an appropriate platform to communicate your message?
- **Reflective**
 - Why is a digital story more impactful?
 - Why do we publish content?

FOCUS STANDARDS

- **Standard 3** - Students will communicate through the utilization of audio and video applications.
 - Locate and download a business-related podcast from the Internet.
 - Create a speech advertising a digital product or feature. Save the document in more than one format (e.g., pdf, web publishing, slideshow).
 - Deliver the speech to the class demonstrating professionalism through appearance, manners, etiquette, and enunciation.

- Use the speech to create a podcast and post to your digital portfolio.
- Explore speech/voice recognition technologies for cell phones, tablet PCs, and other devices.
- Understand technologies for disabled individuals and how these relate to the workplace.
- Distinguish the difference between audio file types (e.g. midi, mp3, wav)
- Find and download a business-related video to your computer or digital device.
- Create and insert a video for use in a podcast, presentation, or digital portfolio.
- Utilize audio/video conferencing (e.g., Skype, Facetime, Eyejot).
- Explain the pros and cons of telecommuting from both the employer's and employee's perspective.
- Demonstrate proper customer service when interacting with the public face to face or online.
- Describe personal characteristics that are critical for effective work performance, including honesty, attitude, punctuality etc.
- Demonstrate proper business etiquette.
- Address each of the following areas to varying degrees based on available information: anticipated employment, drivers & constraints, size & location of market, connections(s) to existing technologies, ability & ease of replication, physical & capital costs, industry & education partnerships to be leveraged, national best practices, illustrate qualifications & recommendations, aims & approaches for the technological innovation, innovation system modeling, technology monitoring, forecasting & assessment, trend analysis methods & scenarios, Impact assessment, risk analysis, action (policy) analysis, technology road mapping, and communication & implementation of innovation forecasts.

DISTRICT-PROVIDED RESOURCES

- Canva
- WeVideo
- Adobe Creative Cloud
- MacBook Air Devices

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UNIT 4: Design Graphics



ESSENTIAL QUESTION

BIG IDEAS

How does print media get your attention?

Students will:

- Apply typography, hierarchy, and color theory in print design.
- Understand how to edit images.
- Explain how to save, compress, share, and manage digital images.

GUIDING QUESTIONS

- **Content**
 - What tools can be utilized to edit and create print media?
 - What print media is appropriate for business?
- **Process**
 - How can a photo be edited?
 - How to apply graphic design theory concepts (e.g. typography, hierarchy, and color theory) to create graphic design?
- **Reflective**
 - Why might a business choose print media instead of digital media?
 - Why is it important to be able to convey somewhat complex messages in different types of media?

FOCUS STANDARDS

- **Standard 4** - Students will work with digital images and print media using cloud-based design graphics (e.g., Canva, easel.ly, Piktochart, etc.).
 - Obtain and utilize images from digital devices such as cell phones, tablets or cameras.
 - Explain how to save, compress, share, and manage digital images.
 - Create an infographic, poster, or other online print media and save as a PDF or other format.

- Download and use images from online image libraries.
- Use basic enhancement features to improve the quality of photos for use in documents (e.g., cropping, resizing, colorizing, etc.)
- Generate and include a Quick Response (QR) code on print media.
- Explore online backup and digital imaging resources.
- Identify the features of printers available for printing photos, including uploading for commercial printing.
- Evaluate how digital images enhance print media for business.
- Discuss in depth a chosen emerging technology, based on independent research.

DISTRICT-PROVIDED RESOURCES

- Canva
- WeVideo
- Adobe Creative Cloud
- MacBook Air Devices

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UNIT 5: Globalization of Business



ESSENTIAL QUESTION

BIG IDEAS

How is technology driving the globalization of business?

Students will:

- Investigate technology that facilitates business in a global society.
- Create professional communication that reduces friction in business.
- Collect and analyze data to implement data driven decisions.

GUIDING QUESTIONS

- **Content**
 - What tools can be utilized to facilitate global business?
 - What are the different types of social media available in the world today?
- **Process**
 - How do different cultures impact the way we should conduct business?
 - How does social media extend the reach of business?
- **Reflective**
 - Why might a business utilize technology to expand its reach?
 - How might a business benefit by thinking globally about emerging technology?

FOCUS STANDARDS

- **Standard 5** -Students will understand the impact and advantages of technology relating to the globalization of business.
 - Use translation software to convert text to another language.
 - Use the Internet to convert currency from different countries.
 - Research business cultures and customs from different countries.
 - Research advantages of using technology relating to working with teams.
 - Create an online survey/form and use it to collect data.
 - Understand the uses of group texting (SMS, MMS, etc.).

- Understand the impact and influence of Social Media on business (i.e., Twitter: Hashtags; Facebook, LinkedIn etc...)
- Understand the uses of GPS and Geotagging in the business world.
- Use Online Mapping Software.
- Be able to explain why it is important for STEM professionals to keep abreast of evolving technologies.
- Identify solutions and problems that go beyond the expected and obvious.

DISTRICT-PROVIDED RESOURCES

- Canva
- WeVideo
- Adobe Creative Cloud
- MacBook Air Devices