

Curriculum Map: ES 6th Grade Technology 2021

Course: Computer6 Sub-topic: Computer

Grade(s): 6

Course Description: The 6th grade technology curriculum builds upon the foundation established in 5th grade by introducing students to the use of drones and other emerging technologies. The curriculum is designed to develop students' skills in computer literacy, digital citizenship, and drone operation.

Throughout the year, students will explore topics such as programming, robotics, and drone technology. They will learn basic programming concepts and apply them to control robots and drones. Students will also learn how to operate drones safely and responsibly, including understanding regulations and guidelines for drone use.

Students will use digital tools to design, build, and program their own robots and drones, using block-based coding tools such as Scratch and Tello. They will also explore drone technology and its applications in areas such as agriculture, search and rescue, and entertainment.

Additionally, students will continue to develop their digital citizenship skills, learning about online safety, cyberbullying, and the responsible use of technology. They will explore the ethical considerations of drone technology, including privacy and surveillance issues.

Throughout the year, students will engage in hands-on projects that allow them to apply their learning in real-world scenarios. They will work collaboratively to design and build drones, and will use their programming skills to create custom flight paths and perform aerial maneuvers.

Unit: Presentation Software, Graphic Organizers, Google Content Keyboard Functions

Timeline: Week 1 to 8

Unit Description: Students will use multiple types of presentation software to deliver meaningful content from classroom instruction. Students will also review keyboard applications and shortcuts from Google Software developed from previous content.

Unit Materials:

Prezi

Google Slides

MS PowerPoint

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.3.6.6-8.G \(Advanced\)](#) Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

This Curriculum Map Unit has no Topics to display

Unit: 3D Printer Exploration

Timeline: Week 5 to 9

Unit Description: Students will incorporate basic CAD design elements from Cloud based software and later produce a physical project using the districts' 3D printers.

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.3.5.6-8.B \(Advanced\)](#) Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

[CC.3.5.6-8.I \(Advanced\)](#) Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

[CC.3.6.6-8.F \(Advanced\)](#) Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.

CC.3.6.6-8.I
(Advanced)

Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

This Curriculum Map Unit has no Topics to display

Unit:

This Curriculum Map Unit has no Topics to display

Unit: Modern Apps For Movie Editing

Timeline: Week 49

This Curriculum Map Unit has no Topics to display

Unit: Coding with Drones

Timeline: Week 3

Unit Description: Students will use block coding with Scratch to fly drones through a designed course.

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

CC.3.5.6-8.F (Advanced) Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.

CC.3.5.6-8.G (Advanced) Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).

CC.3.6.6-8.B (Advanced) Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.

? Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. ? Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. ? Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. ? Use precise language and domain-specific vocabulary to inform about or explain the topic. ? Establish and maintain a formal style and objective tone. ? Provide a concluding statement or section that follows from and supports the information or explanation presented.

This Curriculum Map Unit has no Topics to display

Unit: Career Crusing Choices

Timeline: Week 12

Unit Description: Students must meet all state and district requirements pertaining to safe digital citizenship. Current online provider is Neptune Navigate.

Individual sections include Digital Citizenship, Cyberbullying, Digital Footprint, Media Literacy, Cyber Awareness and Age Appropriateness.

