



Integrated Technology 6

Course Number:

Course Level: Academic 6th grade

Grade: 6th grade

Time/Credit: 22 Periods /.25 Credit

Development Date: 2025 - 2026

School Board Approval:

Central Bucks School District
20 Welden Drive
Doylestown, PA 18901

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Central Bucks School District
Teaching and Learning Principles

1. Empower Learner: Students take an active role in choosing tools to demonstrate competency in their learning goals. Therefore, we will design units where students are exposed to a variety of technology applications but then have the opportunity to choose which applications they believe best meet their needs and interests for engaging in particular learning components /projects.
2. Digital Citizen: Students recognize the responsibility of learning and working in a digital world of life is a safe, legal, ethical way. Therefore, we will provide students the opportunity to learn 21st century skills while implementing appropriate use of the technologies.
3. Knowledge Constructor: Students select a variety of resources using digital tools to construct knowledge, create products, and experience learning in meaningful ways. Therefore, we will model and encourage the use of digital tools as a means for instruction, research, application, collaboration, communication, and creation of meaningful and relevant products.
4. Innovative Designer: Students use a variety of technologies within a design process to create new, useful, or imaginative products. Therefore, we will plan projects and assessments that require our students to use diverse technology applications with a focus on usefulness of skills for their academic and future professional lives. Students will be encouraged and allowed to involve new and imaginative products in this process.
5. Computational Thinker: Students develop and employ strategies for understanding and solving problems in ways that use technologies to develop and test solutions. Therefore, we will develop projects and assessments that require students to utilize a variety of technology applications to address problems and/or challenges where they will need to strategize (e.g. test presentation formats; assess their and their peers' products) in order to produce a high-quality product.
6. Creative Communicator: Students communicate clearly and express themselves creatively for a variety of purposes using platforms, tools, styles, formats, and digital media appropriate to their goals. Therefore, tasks proposed will require students to collaboratively work through problems while collaborating using a variety of resources.
7. Global Collaborator: Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally. Therefore, we will embed opportunities to collaborate, assume roles, facilitate discussion both in-person and through technology platforms. These opportunities will allow students the opportunity to practice social and digital relationships, share and respect the ideas/contributions of others, and enrich their learning and products through incorporation of diverse thinkers.

Central Bucks School District
Enduring Understandings

Students will understand that:

- computer skills are critical for success in the 21st century.
- organizing files helps us stay efficient and productive.
- backing up files protects our hard work and increases workflow.
- basic technology tools help us explore how businesses operate and how careers connect to business functions.
- organizations require employees with specialized skills in marketing, accounting, and management to operate successfully.
- career exploration helps them discover how their interests and strengths connect to real world opportunities.
- different careers require different skills, education, and personal qualities.
- productivity software (documents, presentations, and spreadsheets) is useful for creating school and business projects.
- problem solving and critical thinking skills help individuals address real world business challenges.

Central Bucks School District
Essential Questions

- What are the key elements of composing a professional email?
- What are the different career paths available and what skills are needed for them?
- How can we set goals and plan for our future careers?
- How can we utilize Microsoft and multimedia programs for a variety of purposes and projects?
- What is coding and why do we use it?
- How can coding be used to solve problems and express ideas?
- How does debugging our code help us learn from our mistakes?

Central Bucks School District – Integrated Technology 6 Course of Study

Course Overview

Desired Results

Course Description:

In this course, students will build foundational technology skills by learning effective file management and using Office 365 tools for productivity and collaboration. Students will explore careers in marketing, accounting, and management, developing communication, organization, and critical thinking skills. Through portfolio creation and mock interviews, students will connect their personal strengths to real-world career paths and gain confidence in their ability to succeed in a digital and professional environment.

Prerequisite: none

Committee Members: **Michael Greenbaum, Melissa Hallman, Patrick Mullin, Dylan Oppen, Joseph Schoenly, Natalie Spatafora, Hannah Woodring**

Acceptable Evidence.

Teachers of this course will abide by the expectations set forth from the Teaching and Learning Team for summative and formative assessment practices as well as composition of the gradebook.

Common Summative Assessment 1: Make Your Portfolio- students will use Sway to create

Course Grading: 90% Summative, 10% Formative

Pacing Guide

Content	
Unit 1	
Intro to Integrated Tech	
Introductions	1
File Management	1
Professional Emails	1
Scams	1
Unit 2	
Career Exploration (Creating a School Store)	
Marketing as a career	4
Accounting as a career	4
Management as a career	4
Resume/Portfolio and Mock Interview	3
Intervention and Enrichment (Floor Plan)	1
Unit 3	
Coding	
Introductions to coding	1
Coding day 1	1
Coding day 2	1
Coding day 3	1
Coding day 4	1

NOTE: Additional remediation in standards/content from the grade level (or previous grade level) where the student completes this course will be provided for students when the teacher determines a student has not yet mastered that content. Enrichment opportunities will also be provided to meet the needs of students that acquire an understanding of the content faster than their class peers.

Required Texts and Software

<https://arcade.makecode.com>

M365

Canva

WeVideo

Floorplan

Central Bucks School District – Course of Study – Integrated Technology 6

Unit 1 – “Introduction to Integrated Technology”

Desired Results:

Essential Questions

- How can technology help us stay organized, communicate effectively, and work efficiently?
- What are the characteristics of professional digital communication?
- How can we recognize and avoid phishing emails, scams, and other online threats?
- Why is digital citizenship important in school, careers, and everyday life?

Enduring Understandings

Students will understand that...

- technology is a tool that supports organization, communication, productivity, and learning.
- professional digital communication helps people collaborate effectively and build positive relationships.
- cybersecurity awareness is essential for protecting personal information and digital accounts.
- responsible digital citizenship involves making safe, ethical, and informed decisions online.
- organized file management systems make digital work easier to access, maintain, and share.
- professional emails require clear purpose, appropriate tone, and proper formatting.
- phishing emails and online scams use deceptive tactics to obtain personal information.
- good digital habits help individuals remain safe, productive, and responsible technology users.

Knowledge

Students will know...

- the purpose of Integrated Technology and its connection to school, careers, and daily life
- how to organize, save, rename, and manage digital files and folders
- components of a professional email, including subject lines, greetings, body text, and signatures
- appropriate email etiquette and communication practices
- common characteristics of phishing emails, scams, spam, and suspicious online messages
- basic cybersecurity practices for protecting accounts and personal information
- expectations for responsible digital citizenship and technology use

Vocabulary

- Integrated Technology
- Digital Citizenship
- File Management
- Folder
- Directory
- Cloud Storage
- Organization
- Productivity
- Email

- Subject Line
- Salutation
- Signature
- Attachment
- Professional Communication
- Cybersecurity
- Phishing
- Scam
- Spam
- Password Security
- Personal Information

Skills

Students will be able to...

- create and maintain an organized digital file and folder structure
- save, rename, move, and retrieve files efficiently
- compose professional emails using appropriate formatting and tone
- attach, organize, and share digital documents appropriately
- identify common warning signs of phishing emails and scams
- apply safe online practices to protect personal information
- demonstrate responsible digital citizenship in classroom technology activities
- communicate effectively using digital tools

Standards:

Priority

BCIT

Standard - 15.3.8.S - Apply appropriate electronic communication based on message requirements.

Standard - 15.3.8.T - Discuss the rules of digital citizenship.

Supporting

BCIT

Standard - 15.3.8.O - Discuss types of communication skills (e.g., internal, external) in organizations.

Standard - 15.4.8.B - Interpret and apply appropriate social, legal, ethical, and safe behaviors of digital citizenship.

CTE

13.2.6-8.B Develop formal communication that demonstrates professional etiquette and observes social protocols when communicating verbally, nonverbally, and in writing. (Professional Emails)

13.2.6-8.A Apply critical thinking to solve real-life problems (Scams)

ISTE

1.1.d Students understand fundamental concepts of how technology works, demonstrate the ability to choose and use current technologies effectively, and are adept at thoughtfully exploring emerging technologies.

1.6.a Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.

1.6.c Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations.

PA Core Standards

MP.5 – Use appropriate tools strategically (file management)

CC.1.4.6.X – Write routinely over extended and shorter time frames for a range of tasks, purposes, and audiences (professional email)

MP.3 – Construct viable arguments and critique the reasoning of others (phishing scams)

Acceptable Evidence:

Acceptable evidence of learning:

Performance Tasks

Digital Readiness Portfolio

Students will create a portfolio that includes:

- A well-organized file and folder structure
- A professionally written email responding to a realistic scenario
- An analysis of sample phishing emails identifying warning signs
- A digital citizenship or online safety product (poster, infographic, slideshow, or video)

Presentation

- Explain organizational strategies used for file management
- Demonstrate proper email etiquette
- Describe methods for recognizing and responding to phishing attempts and scams

Acceptable Evidence of Learning Other Than Performance Tasks

Formative Assessment

- Exit tickets
- Class discussions
- Reflection journals
- Email writing practice activities
- File management exercises
- Phishing identification activities
- Teacher observation and feedback

Summative Assessment

- Digital Readiness Portfolio

Suggested Learning Experiences and Instruction

Learning Experiences:

- Explore school technology systems and digital tools
- Practice organizing files and folders using cloud storage platforms

- Analyze examples of professional and informal emails
- Participate in phishing and scam detection activities
- Complete digital citizenship and online safety lessons
- Reflect on personal technology habits and digital responsibilities
- Collaborate with peers on cybersecurity awareness projects

Instructional Strategies:

- Project-based learning
- Direct instruction and modeling
- Cooperative learning groups
- Think-Pair-Share
- Scenario-based learning
- Technology simulations
- Guided discussion and inquiry
- Interactive demonstrations

Differentiation / Intervention / Enrichment Options:

- Step-by-step templates for file organization and email writing
- Visual guides and checklists for identifying phishing attempts
- Small-group reteaching and guided practice
- Choice-based projects (poster, slideshow, infographic, video)
- Peer mentoring opportunities
- Extension activities focused on cybersecurity careers and emerging technologies
- Modified assignments and supports as needed

For Language Development:

- Explicit instruction of digital literacy and technology vocabulary
- Visual supports including screenshots, diagrams, icons, and examples
- Sentence starters for professional emails and classroom discussions
- Graphic organizers for analyzing phishing emails and scams
- Opportunities for oral practice and collaborative learning
- Bilingual glossaries or translation tools when available

Sample Sentence Starters

- "I am writing to inquire about..."
- "Thank you for your time and assistance."
- "This file organization system helps me because..."
- "One clue that this message may be a phishing attempt is..."
- "To keep my information secure, I should..."
- "A responsible digital citizen would..."

Central Bucks School District – Course of Study – Integrated Technology 6
Unit 2 – “Career Exploration”

Desired Results:

Essential Questions:

- How do businesses use technology to solve problems and meet customer needs?
- How do skills like management, marketing, and accounting prepare us for future careers?
- How can teamwork, creativity, and critical thinking help us succeed in the workplace?
- What careers use technology and business skills in everyday life?

Enduring Understandings:

Students will understand that...

- technology is a powerful tool used across all careers and industries.
- businesses rely on marketing, accounting, and coding to operate successfully.
- strong communication, collaboration, and problem-solving skills are essential for future jobs.
- exploring careers helps students make informed choices about their interests and strengths.
- business decisions are based on data, budgeting, and customer needs.
- digital tools and simple programming are used to create, market, and manage products.
- career paths are diverse and often combine multiple skill sets.
- ethical and responsible use of technology is important in business.

Knowledge:

Students will know...

- The basic roles of marketing, accounting, and management in a business
- How businesses earn, track, and spend money
- How technology supports communication and productivity
- Various career options related to technology and business
- How collaboration and professionalism are used in the workplace

Vocabulary

- Marketing
- Accounting
- Budget
- Profit
- Expense
- Revenue
- Coding
- Algorithm
- Consumer
- Product
- Career Path
- Collaboration
- Digital Tools

Skills:

Students will be able to...

- create a simple budget for a product or business idea
- design a basic marketing campaign using digital tools
- write and modify simple code (e.g., block-based coding)
- analyze basic financial decisions and outcomes
- work collaboratively in teams to solve problems
- present ideas clearly using technology

Standards:

Priority

BCIT

Standard - 15.1.8.A - Identify knowledge, skills, and attitudes needed for careers in accounting.

Standard - 15.2.8.A - Examine various occupation options based on career assessments results, personal characteristics, talents, skills, abilities, and aptitudes as related to career pathways, clusters, or occupations.

Standard - 15.9.8.A - Explore various marketing careers and analyze their role in the business world.

Supporting

BCIT

Standard - 15.4.8.G - Create an advanced digital project using appropriate software/application for an authentic task.

CTE

13.1.6-8.A Analyze the relationship of school subjects, extracurricular activities, and community experiences to career preparation.

13.1.6-8.C Compare and contrast multiple careers using a variety of career research resources.

13.1.6-8.E Identify, participate in, and evaluate school- and community-based opportunities for career awareness/preparation experiences.

ISTE

1.1.d Students understand fundamental concepts of how technology works, demonstrate the ability to choose and use current technologies effectively, and are adept at thoughtfully exploring emerging technologies.

1.7.c Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.

PA Core Standards

13.1.6-8.E Identify, participate in, and evaluate school- and community-based opportunities for career awareness/preparation experiences.

Acceptable Evidence:

Performance Tasks –

Create a mini business project that includes:

- A simple product or service idea
- A basic budget (income and expenses)
- A marketing advertisement (poster, slide, or video)

Group presentation explaining their business and career connections

Acceptable evidence of learning other than Performance Tasks:

Formative Assessment

- Exit tickets
- Class discussions
- Journals or reflection prompts
- Coding practice activities
- Budget worksheets
- Teacher observation and feedback

Summative Assessment

- Final business project rubric
- End-of-unit reflection
- Vocabulary or concept quiz
- Self and peer evaluations

Suggested Learning Experiences and Instruction

Learning Experiences:

- Career exploration videos and guest speakers
- Hands-on coding activities (e.g., Scratch)
- Budgeting simulations and games
- Design and marketing challenges
- Small-group problem-solving activities
- Reflection on personal interests and strengths

Instructional Strategies:

- Project-based learning
- Direct instruction with modeling
- Cooperative learning groups
- Think-pair-share
- Technology-based simulations
- Discussion and guided inquiry

Differentiation/Intervention/Enrichment Options:

- Step-by-step guided templates for budgeting and coding
- Extension challenges (advanced coding or marketing design)
- Choice-based projects (poster, video, slideshow)
- Small-group reteaching
- Peer mentoring
- Modified expectations as needed

For Language Development:

- Explicit teaching of academic and business vocabulary
- Visual supports (charts, icons, diagrams)
- Sentence starters for discussions and presentations
- Opportunities for oral practice and collaboration
- Bilingual glossaries or translation tools when available

Central Bucks School District – Course of Study – Integrated Technology 6
Unit 3 – “Coding”

Desired Results:

Essential Questions:

- How does writing code solve real-world problems?
- What steps do I take to plan, test, and improve a program?
- In what ways does coding connect to science and engineering practices?

Enduring Understandings:

Students will understand that...

- algorithms are step-by-step instructions that solve problems or complete tasks.
- debugging is essential for refining programs to behave as intended.
- coding is a creative and iterative process intertwined with engineering practices.

Knowledge:

Students will know...

- the concept of algorithms, sequence, selection, and iteration.
- basic coding constructs: variables, events, conditionals.
- the relationship between inputs, outputs, and program state.
- how STEELS integrates with CSTA standards. For example, computational thinking, systems thinking

Vocabulary:

- Algorithm
- Sequential Execution
- Conditional/Selection
- Iteration/Loop
- Variable
- Event-Driven Programming
- Debugging

Skills:

Students will be able to...

- design and implement algorithms to solve authentic problems.
- write code using block-based or text-based environments (like Scratch or MakeCode).
- test and debug programs, identifying and correcting errors.
- communicate logical sequences and code behavior using computational thinking.
- explain how coding employs engineering practices such as planning, testing, and refinement.

Standards:

Priority

BCIT

Standard - 15.4.8.H - Explain the differences between a scripting language and a coding language.

Standard - 15.4.8.J - Explain the basic differences between encoding and decoding.

Supporting

BCIT

Standard - 15.4.8.D - Create projects using emerging input technologies.

Standard - 15.4.8.I - Solve a problem with an algorithm.

CTE

13.2.6-8.D - Demonstrate proficient use of technologies by using various types of technology.

ISTE-

1.1.d Students understand fundamental concepts of how technology works, demonstrate the ability to choose and use current technologies effectively, and are adept at thoughtfully exploring emerging technologies.

1.7.c Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.

PA Core Standards

MP.1 Make sense of problems and persevere in solving them

MP.5 Use appropriate tools strategically

MP.6 Attention to precision

Acceptable Evidence:

Performance Tasks –

- Coding Challenge Project
Students design and create a working program (e.g., game, animation, or simulation) that:
 - Uses sequence, conditionals, and loops
 - Solves a defined problem or meets a set of constraints
 - Is tested and debugged through multiple iterations
 - Includes a short written or recorded explanation of how the algorithm works
- Algorithm Design Task
Students create a flowchart or pseudocode plan before coding, demonstrating logical thinking and planning.

Acceptable evidence of learning other than Performance Tasks:

Formative Assessment

- Teacher observation during coding activities
- Think-alouds while debugging
- Check-in questions during mini-lessons
- Practice challenges with immediate feedback
- Quick quizzes on vocabulary and concepts
- Code reviews (teacher or peer)

Summative Assessment

- Final coding project evaluated using a rubric assessing:
 - Use of required coding structures
 - Functionality and accuracy of the program
 - Problem-solving and debugging process
 - Explanation of algorithm and design choices

- Unit assessment covering:
 - Coding vocabulary
 - Core concepts (algorithms, loops, conditionals)
 - Interpretation of simple code examples

Suggested Learning Experiences and Instruction

Learning Experiences:

- Unplugged coding activities (logic puzzles, human algorithms)
- Guided coding tutorials using a block-based or beginner text-based platform
- Small-group coding challenges
- Debug-the-code exercises
- Collaborative problem-solving tasks
- Independent project work with checkpoints
- Reflection activities connecting coding to real-world technology

Instructional Strategies:

- Direct instruction with modeling (I do)
- Guided practice (We do)
- Independent/collaborative coding (You do)
- Use of exemplars and non-examples
- Questioning and discussion to promote computational thinking
- Engineering design cycle (plan → build → test → improve)
- Use of visual supports (flowcharts, anchor charts)

Differentiation/Intervention/Enrichment Options:

Differentiation

- Choice of project themes or difficulty levels
- Scaffolded starter code for struggling students
- Chunked instructions and checklists
- Flexible grouping (pairs, small groups, individual)

Intervention

- One-on-one or small-group reteaching
- Simplified coding tasks focusing on one concept at a time
- Guided debugging with teacher modeling
- Additional practice with visuals and step-by-step support

Enrichment

- Optional advanced challenges (nested loops, variables, extensions)
- Student-designed modifications to existing projects
- Introduction to real-world coding applications (games, simulations, sensors)
- Leadership roles as peer mentors or “code coaches”

For Language Development:

- Explicit instruction in coding vocabulary with visuals
- Sentence frames for explaining code (e.g., “This loop repeats because...”)
- Pair-programming to encourage academic language
- Opportunities for oral explanations before written responses
- Visual instructions, icons, and color-coding in code blocks
- Use of diagrams and flowcharts to support comprehension