April Gr. 1

Content Area: **Technology**
Course(s):
Time Period: **April**
Length: **4-5Weeks**
Status: **Published**

Unit Overview

Students will complete Course #1 in Coding and create an Earth Day poster.

Enduring Understandings

Coding is the language that makes computer programs work.

Essential Questions

What is coding?

What is Earth Day?

Instructional Strategies & Learning Activities

Objective: Intro to Coding - ONLINE activites code.org (Course #1)
The student will *continue* to learn and understand basic concepts about coding creating code in a "blockly" language which writes Javascript 'under the hood'. **Students will also complete "showcase" pieces for the STEM Expo.**

Differentiation:
Self-paced

Assessment:
Teacher dashboard reports

Objective: STEM Expo Prep - code.org (Course #1)
The student will *continue* to learn and understand basic concepts about coding creating code in a "blockly" language which writes Javascript 'under the hood'. **Students will also complete "showcase" pieces for the STEM Expo.**

Differentiation:
Self-paced

Assessment:

Teacher dashboard reports

Objective: Earth Day Recycling Poster "The Lorax Says..." in Pixie The student will be able to create an 8 1/2" X 11" poster to showcase ways we can assist the Lorax to save the earth and keep it green by recycling.

Differentiation:
Choice of colors and artwork

Assessment:
Printed posters

Integration of Career Readiness, Life Literacies and Key Skills

Students will learn about careers in computer programming while learning coding.

9.1.2.CAP	Career Awareness and Planning
9.4.2.CI	Creativity and Innovation
	Different types of jobs require different knowledge and skills.
	Brainstorming can create new, innovative ideas.
9.4.2.CI.1	Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2).
9.1.2.CAP.1	Make a list of different types of jobs and describe the skills associated with each job.
9.4.2.CI.2	Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
9.4.2.CT	Critical Thinking and Problem-solving
	Critical thinkers must first identify a problem then develop a plan to address it to effectively solve the problem.
9.4.2.CT.1	Gather information about an issue, such as climate change, and collaboratively brainstorm ways to solve the problem (e.g., K-2-ETS1-1, 6.3.2.GeoGI.2).
9.4.2.CT.2	Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b, 8.2.2.ED.3).
9.4.2.CT.3	Use a variety of types of thinking to solve problems (e.g., inductive, deductive).
9.4.2.GCA	Global and Cultural Awareness
	Individuals from different cultures may have different points of view and experiences.
9.4.2.GCA.1	Articulate the role of culture in everyday life by describing one's own culture and comparing it to the cultures of other individuals (e.g., 1.5.2.C2a, 7.1.NL.IPERS.5, 7.1.NL.IPERS.6).
	Digital tools and media resources provide access to vast stores of information that can be searched.
9.4.2.IML.1	Identify a simple search term to find information in a search engine or digital resource.
	A variety of diverse sources, contexts, disciplines, and cultures provide valuable and necessary information that can be used for different purposes.
9.4.2.IML.3	Use a variety of sources including multimedia sources to find information about topics such as climate change, with guidance and support from adults (e.g., 6.3.2.GeoGI.2, 6.1.2.HistorySE.3, W.2.6, 1-LSI-2).

9.4.2.TL	Technology Literacy
9.4.2.TL.1	Identify the basic features of a digital tool and explain the purpose of the tool (e.g., 8.2.2.ED.1).
9.4.2.TL.4	Navigate a virtual space to build context and describe the visual content.

Interdisciplinary Connections

LA.RI.1.1	Ask and answer questions about key details in a text.
LA.RI.1.2	Identify the main topic and retell key details of a text.
LA.RI.1.4	Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.
LA.RI.1.5	Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.
LA.RI.1.6	Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.

Differentiation

- Understand that gifted students, just like all students, come to school to learn and be challenged.
- Pre-assess your students. Find out their areas of strength as well as those areas you may need to address before students move on.
- Consider grouping gifted students together for at least part of the school day.
- Plan for differentiation. Consider pre-assessments, extension activities, and compacting the curriculum.
- Use phrases like "You've shown you don't need more practice" or "You need more practice" instead of words like "qualify" or "eligible" when referring to extension work.
- Encourage high-ability students to take on challenges. Because they're often used to getting good grades, gifted students may be risk averse.

- **Definitions of Differentiation Components**:

    - Content – the specific information that is to be taught in the lesson/unit/course of instruction.
    - Process – how the student will acquire the content information.
    - Product – how the student will demonstrate understanding of the content.
    - Learning Environment – the environment where learning is taking place including physical location and/or student grouping

Differentiation occurring in this unit:

See Differentiation listed above.

Modifications & Accommodations

Refer to QSAC EXCEL SMALL SPED ACCOMMOCATIONS spreadsheet in this discipline.

Modifications and Accommodations used in this unit:

IEP and 504 accommodations will be utilized.

Benchmark Assessments

Benchmark Assessments are given periodically (e.g., at the end of every quarter or as frequently as once per month) throughout a school year to establish baseline achievement data and measure progress toward a standard or set of academic standards and goals.

Schoolwide Benchmark assessments:

Aimsweb benchmarks 3X a year

Linkit Benchmarks 3X a year

DRA

Additional Benchmarks used in this unit:

Teacher observation and checklists to show growth over time.

Formative Assessments

Assessment allows both instructor and student to monitor progress towards achieving learning objectives, and can be approached in a variety of ways. **Formative assessment** refers to tools that identify misconceptions, struggles, and learning gaps along the way and assess how to close those gaps. It includes effective tools for helping to shape learning, and can even bolster students' abilities to take ownership of their learning when they understand that the goal is to improve learning, not apply final marks (Trumbull and Lash, 2013). It can include students assessing themselves, peers, or even the instructor, through writing, quizzes, conversation, and more. In short, formative assessment occurs throughout a class or course, and seeks to improve student achievement of learning objectives through approaches that can support specific student needs (Theal and Franklin, 2010, p. 151).

Formative Assessments used in this unit:

See assessment listed above.

Summative Assessments

summative assessments evaluate student learning, knowledge, proficiency, or success at the conclusion of an instructional period, like a unit, course, or program. Summative assessments are almost always formally graded and often heavily weighted (though they do not need to be). Summative assessment can be used to great effect in conjunction and alignment with formative assessment, and instructors can consider a variety of ways to combine these approaches.

Summative assessments for this unit:

See assessment listed above.

Instructional Materials

See materials listed above.

Standards

	Individuals use computing devices to perform a variety of tasks accurately and quickly. Computing devices interpret and follow the instructions they are given literally.
8.1.2.CS.1	Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.
8.1.2.CS.2	Explain the functions of common software and hardware components of computing systems.
	Computer networks can be used to connect individuals to other individuals, places, information, and ideas. The Internet enables individuals to connect with others worldwide.
8.1.2.NI.1	Model and describe how individuals use computers to connect to other individuals, places, information, and ideas through a network.
	Individuals collect, use, and display data about individuals and the world around them.
8.1.2.DA.1	Collect and present data, including climate change data, in various visual formats.
	The use of technology developed for the human designed world can affect the environment, including land, water, air, plants, and animals. Technologies that use natural sources can have negative effects on the environment, its quality, and inhabitants.

Reusing and recycling materials can save money while preserving natural resources and avoiding damage to the environment.