

Course Overview

Over the course of the year, fourth graders learn more in-depth functions of computers. This includes using Google Workspace applications, keyboarding, Digital Citizenship, 3D printing, and coding. The students also create artifacts that demonstrate the skills taught in class.

Scope and Sequence

Timeframe	Unit	Instructional Topics
Ongoing	Google Docs	1. Pangolin Activity or other relevant document
Ongoing	Google Drawings	1. Phases of the Moon
Ongoing	Google Forms	1. Survey about Food 2. Self selected survey topic
Ongoing	Keyboarding	1. The students develop proper keyboarding techniques through the use of the computer program, Qwerty Town.
Ongoing	Computer/Coding Vocabulary	1. Rate and log activity
Ongoing	Google Sheets	1. Student choice
Ongoing	Digital Citizenship/Internet Skills	1. Navigating the Internet 2. Private Information 3. Digital Footprint
Ongoing	Google Slides	1. Research city in WI
Ongoing	3D Creation	1. Gadgets Galore!
Ongoing	Coding	1. Code.org Course E

Course Details

UNIT: Google Docs (ISTE: 2.b, 3.b, 3.d., 5.a., 5.b, 6.a) -- Ongoing

Description

The students will use Google Docs to create and edit a document. They will learn formatting skills such as cut/copy/paste, word count, bold, underline, font color, font size, line spacing, thesaurus use, text alignment, insert images, etc. These skills will be used and practiced throughout the year.

TOPIC: Pangolin Report

Learning Targets

The students will create a document about a pangolin and format it according to teacher directions.

UNIT: Google Drawings (ISTE: 2.b, 3.b, 3.d., 5.a., 5.b, 6.a) -- Ongoing

Description

The students will use Google Drawings (or other online drawing application) to create a diagram showing the phases of the moon.

TOPIC: Moon Phases-- Ongoing

Learning Targets

The students will create a diagram (infographic) using Google Drawings to show the eight major phases of the moon during the month of October. They will use shapes, text boxes, font styles, font colors, size, gradients, ordering of shapes, etc.

UNIT: Google Forms (ISTE:5.b., 7.a, 7.c.) -- Ongoing

Description

As a class we create a survey centering on the topic of foods. The teacher models the process of creating a survey with a variety of questions. Upon completion, students will choose a partner or work alone on a topic of their choosing.

TOPIC: Survey of Foods

Learning Targets

The students will be introduced to Google forms through the use of a teacher lead lesson.

TOPIC: Survey of Choice

Learning Targets

The students will independently or with a partner create a survey on a topic of their choosing. They will incorporate at least three of the question types in their survey and analyze the results.

UNIT: Keyboarding (ISTE: 2.b, 3.b, 3.d., 5.a., 5.b, 6.a)-- Ongoing

Description

Each class period the students will spend a minimum of 15 minutes using the program, "Qwerty Town" to increase the accuracy and speed of their typing.

TOPIC: Qwerty Town-- Ongoing

Materials and Resources

Qwerty Town levels 4-6.

Learning Targets

The students will use "Qwerty Town", a web-based program to learn keyboarding skills. Each lesson introduces new keystrokes and reviews previous lessons. The students are required to meet accuracy and word-per-minute guidelines before moving on to the next lesson. The desired accuracy is 85% with 15 words per minute.

UNIT: Computer/Coding Vocabulary (ISTE: 1.d.,3.d.)-- Ongoing

Description

Through the use of a Rate and Log activity students will demonstrate their understanding of these key terms: browser, search engine, internet, filter, AUP, cloud computing, Google Drive, files, folders, algorithm, loops, while statements, events, and variables.

Topic: Rate and Log**Materials and Resources**

Online Rate and Log sheet

Quizizz or Kahoot review game

Learning Targets

___The students will have a basic understanding of common computer and coding terms.

UNIT: Google Sheets (ISTE:5.b.) -- Ongoing

Description

The students use Google Sheets to collect data and create a chart/graph.

TOPIC: Student selected topic

Learning Targets

The students work alone or with a partner to gather data about a topic of their choice. This data will then be entered into a Sheet and a chart/graph will be created.

UNIT: Digital Citizenship/Internet Skills (ISTE: 2.a., 2.b., 2.c., 2.d.) -- Ongoing

Description

During this unit, the students learn how to safely navigate the internet and protect themselves from predators on the Internet through a variety of activities. Common Sense Media and [Be Internet Awesome](#) are used as well as other current online resources as deemed relevant.

TOPIC: Navigating the Internet -- Ongoing

Learning Targets

The students will identify safety issues related to the responsible use of information and technology. The current lesson titled, "[My Media Choices](#)" within the Common Sense Media curriculum will be utilized.

TOPIC: Private Information -- Ongoing

Learning Targets

The students will learn why it is risky to share private information online. The current lesson titled, "[Private and Personal Information](#)" within the Common Sense Media curriculum will be utilized.

TOPIC: Digital Footprint -- Ongoing

Learning Targets

The students will define "Digital Footprint" and identify ways they can and can not control their online presence. The current lesson titled, "[Our Online Tracks](#)" within the Common Sense Media curriculum will be utilized.

UNIT: Google SlideShow (ISTE:3.a., 3.c., 6.a., 6.b., 6.c., 6.d.) -- Ongoing

Description

The students work in groups of three and select a city in Wisconsin to research and cite information properly using the Google Explore tool. They create a SlideShow and share it with classmates.

TOPIC: WI Research with Explore Tool-- Ongoing

Learning Targets

The students will communicate clearly by identifying websites that give them information about a WI city and create a unique presentation with accurate citations provided by the Explore Tool.

UNIT: 3D Creation (ISTE: 4.a., 4.b., 4.c., 4.d.)-- Ongoing

Description

This unit is co taught with our Art teacher. Mrs. Schulz introduces the design process using drawing and clay to create a gadget that will make their life easier or solve a problem. The students then use Tinkercad which allows them to create a 3D model in the computer lab setting. They email their .stl file to Mrs. Schulz or me to then print.

TOPIC: Gadgets Galore! and Tinkercad--Ongoing

Learning Targets

The students plan, design, and create a 3D object using [Tinkercad](#).

UNIT: Coding (ISTE: 5.a.) -- Ongoing

Description

Students will learn to make fun, interactive projects that reinforce what they'll learn about online safety. Following these lessons, students will engage in more complex coding. Students will learn about nested loops, functions, and conditionals. By the end of the course, students will combine these concepts to solve challenging puzzles. The course ends with an open-ended project where students create a game or drawing. The students work through "puzzles" alone as well as in teams within the Code.org [Course E](#) for 4th graders.

TOPIC: Code.org Course D and Hour of Code--Ongoing

Learning Targets

The students will use blocked-based coding to encourage computational thinking.