

Review:

1. What do we know about computers and technology, and what do we want to know?
2. Ask students to reflect on what they know about computers or technology and what they would like to know. Have them write quietly or share with a partner, then open up to a class discussion.
3. Class contract

Standards: ISTE 1a

Vocabulary	
Computer	<i>a machine used to work with information.</i>
Revolutionize	<i>to change something very much or completely.</i>
Cyberbullying	<i>using the internet to be mean, either by sending messages or posting pictures or videos that are unkind.</i>
Digital citizen	<i>a person who responsibly participates in using the internet and other technology.</i>
Netizen	<i>a person who actively uses the Internet especially in a proper and responsible way.</i>
Change agent	<i>someone who makes change happen by inspiring and influencing others.</i>

Weekly Question: What are some ways we can use the computer mouse?

Suggested In-class Extension Activity: Vocabulary sort; Draw or define the vocabulary words

Standards: ISTE 1d, 2b

Vocabulary	
Scroll	<i>to move up, down, left, or right.</i>
Scroll Wheel	<i>part of the mouse that lets you scroll.</i>
Scroll Bar	<i>the long rectangle that allows you to scroll.</i>
Vertical	<i>goes up and down.</i>
Horizontal	<i>goes back and forth.</i>
Menu	<i>a list of things to do.</i>
Highlight	<i>to pick certain words and put them in a bright color so they stand out.</i>
Text	<i>letters and words.</i>
Triple	<i>three times.</i>

Weekly Question: How can we use a computer touchpad?

Suggested In-class Extension Activity: Have students compare and contrast the touchpad with the mouse using the Compare and Contrast Template or the Venn Diagram Template.

Standards: ISTE 1d

Vocabulary	
Mouse	<i>an input device that is controlled by the hand and fingers to move the cursor on the computer screen.</i>
Touchpad	<i>an input device that allows the user to move the cursor on the computer screen with just their fingers.</i>
Gesture	<i>a movement of part of the body, especially a hand or the head, to express an idea or meaning.</i>
Select	<i>to choose an item by "clicking" on it.</i>
Right-Click	<i>to open a menu and or more information by clicking the right button or using the right-click gesture.</i>
Scroll	<i>to move text or image up or down, or left or right on a computer screen.</i>
Drag and Drop	<i>to move (an image or highlighted text) to another part of the screen using a mouse or similar device.</i>

Weekly Question: What is the binary system?

Suggested In-class Extension Activity: Google Slide Slideshow; Binary System Worksheet; Homework

Standards: ISTE 1d, 5d

Vocabulary

Binary System	<i>a system in which information can be expressed by combinations of the digits 0 and 1.</i>
Base-ten System	<i>a counting system that uses ten digits.</i>
Decimal System	<i>a system of measurement or currency in which the basic units increase by powers of 10.</i>
Symbol	<i>a thing that represents or stands for something else.</i>
Circuit	<i>the path on which electricity flows.</i>

Weekly Question: How have computers changed over time?

Suggested In-class Extension Activity: Computers throughout history; Timeline activity

Standards: ISTE 1d

Vocabulary	
Computer	<i>a machine that does complicated calculation.</i>
PC	<i>a computer made specifically for the home user.</i>
Mainframe	<i>a large high-speed computer.</i>
Command	<i>instructions given to a computer for it to do something.</i>

Weekly Question: What are some of the ways that computers can help people?

Suggested In-class Extension Activity: Cut and Paste Activity; External Parts of a Computer Bingo

Standards: ISTE 1c, 1d, 2b

Vocabulary	
Data	<i>the information that computers work with, such as pictures, numbers, letters, words, or sounds.</i>
Monitor	<i>a flat box that lets you see what's inside the computer.</i>
Computer Case	<i>the box or container that houses the internal computer parts computer.</i>
Power Button	<i>a button that turns the computer on and off.</i>
Device	<i>an electronic piece of equipment.</i>
Input Device	<i>a device that puts information into the computer.</i>
Output Device	<i>a device that takes information from the computer and puts it out.</i>
Port	<i>a hole or connection that allows information to move back and forth between a device and computer.</i>
USB	<i>Universal Serial Bus, a port or connection that is used to connect many external devices to the computer.</i>
Peripheral	<i>an external computer device that connects to the computer.</i>

Weekly Question: What is the difference between computer hardware and software?

Suggested In-class Extension Activity: Software and Hardware images; Closed sort hardware vs. software; Homework

Standards: ISTE 1d

Vocabulary	
Hardware	<i>the physical parts of a computer.</i>
Software	<i>the files, programs, and applications on a computer.</i>
Program	<i>a set of instructions that does a specific job in the computer.</i>
System Software	<i>the programs that manage the computer itself.</i>
Application Software	<i>a program that is made for a person to perform a certain task.</i>

Weekly Question: How do computers work?

Suggested In-class Extension Activity: Closed Sort Input vs. Output devices

Standards: ISTE 1d, 5d

Vocabulary	
Input	<i>any information or data sent to a computer for processing.</i>
Hardware	<i>the collection of physical parts of a computer system.</i>
Software	<i>the programs and other operating information used by a computer.</i>
Process	<i>a series of interdependent operations carried out by computer.</i>
Memory	<i>capacity for storing information on a computer.</i>
Output	<i>a place where power or information leaves a system.</i>

Weekly Question: What is an operating system?

Suggested In-class Extension Activity: Operating System Worksheet

Standards: ISTE 1d

Vocabulary	
Operating System	<i>a set of instructions that manages all of the hardware and software in a computer.</i>
Home Screen	<i>also called a desktop, the main screen of a computer, tablet or mobile device.</i>
Window	<i>an area of the screen that pops up to give you some information.</i>
Menu	<i>a list of choices you can make when using the computer or a program.</i>
Button	<i>a shape that you can click on to make something happen.</i>
Software	<i>the files, programs, and applications on a computer.</i>
Hardware	<i>the physical parts of a computer that can be seen and touched.</i>
Application	<i>a software program that does a certain thing, like web browsing, email, or games.</i>
Icon	<i>a small picture on a home screen that you can click on to open a file or program.</i>
GUI (Graphical User Interface)	<i>A system of windows, pictures, and buttons that can be clicked on to use the different programs and files in a computer.</i>

Weekly Question: What is a window?

Suggested In-class Extension Activity: Label the computer window; Homework

Standards: ISTE 1c, 1d, 3d, 5b

Vocabulary	
Minimize	<i>to make smaller.</i>
Maximize	<i>to make bigger.</i>
Restore	<i>to put things back to the way they were before</i>
Title bar	<i>the bar that has the name of the program or file.</i>
File	<i>an object on a computer that stores information.</i>
Menu	<i>a list of things that you can choose from.</i>
Toolbar	<i>the bar that has buttons that do things.</i>
Window	<i>a way to see what is on the computer.</i>
PC	<i>a type of computer that uses Microsoft Windows.</i>
Mac	<i>a type of computer that doesn't use Microsoft Windows.</i>

Weekly Question: What can a browser do?

Suggested In-class Extension Activity: Use the Venn Diagram Template to compare and contrast street addresses with web addresses.

Standards: ISTE 1b, 1c, 1d, 3a, 4b, 5b, 7d

Vocabulary	
Browser	<i>a program that lets you visit websites on the World Wide Web.</i>
Address bar	<i>the box where you type in a website address.</i>
Search Engine	<i>a program used to search for things on the World Wide Web.</i>
Search Bar	<i>the place where you type in search terms.</i>
Homepage	<i>the starting page when a browser is first opened.</i>
Refresh/Reload	<i>start over.</i>
Load	<i>when information is moved onto a web page.</i>
Favorites/Bookmark	<i>a way to save a web page in the browser's memory for use later.</i>
Extensions/Add-ons	<i>a small program that customizes the web browser in some way.</i>
Tab	<i>a rectangle that sticks up at the top of a web page to show you each web page that is open.</i>

Weekly Question: What are some common computer icons and symbols?

Suggested In-class Extension Activity: Common icons and symbols to display on the board that students would be able to identify; Match the image of the icons & symbols with the words; Fly Swatter Activity images

Standards: ISTE 1d, 6a

Vocabulary	
Icon	<i>a picture that represents a program, function, or idea.</i>
Symbol	<i>a picture that represents an idea.</i>
Emoji	<i>a type of symbol representing emotions and everyday objects.</i>

Weekly Question: What are computer memory and storage?

Suggested In-class Extension Activity: Use the Venn Diagram Template to have students compare and contrast memory and storage.

Standards: ISTE 1d

Vocabulary	
Processing	<i>when a computer works with information or data.</i>
Data	<i>the information that computers work with, such as pictures, numbers, letters, words, or sounds.</i>
Storage	<i>a place that data is kept on a computer for an extended period of time.</i>
Memory	<i>the data that is stored in order to be processed.</i>
ROM	<i>Read Only Memory is permanently stored on the computer and cannot be changed by the user.</i>
Boot	<i>when a computer is started and loads the operating system in order to run.</i>
RAM	<i>Random Access Memory is a device that stores data for a very short time in order for the computer to process the data.</i>

Weekly Question: How can we use a computer keyboard?

Suggested In-class Extension Activity: Keyboard Labeling Worksheet

Standards: ISTE 1d

Vocabulary	
QWERTY	<i>the most common English language layout for a computer keyboard.</i>

Weekly Question: How can files and folders help us stay organized?

Suggested In-class Extension Activity: Use the Compare and Contrast Template for files and folders.

Standards: ISTE 1b, 1d, 2d

Vocabulary	
File	<i>an object on a computer that stores information.</i>
Folder	<i>a storage space where files and other folders can be kept and organized.</i>
Drive	<i>a storage device that can store files and folders.</i>
Hard Drive	<i>the main drive of a computer where files and folders are stored.</i>

Weekly Question: How can we create different kinds of files for school assignments and for fun?

Suggested In-class Extension Activity: Break the class into groups. Assign each group one of the G Suite programs from the video/reading. Have them create a poster explaining what the program can do and present it to the class.

Standards: ISTE 1d, 6a

Vocabulary	
G Suite	<i>a set of free apps created by Google for work and homework that you can use and save online.</i>
Drive	<i>a free online file storage program developed by Google.</i>
Classroom	<i>a free online program for schools offered by Google that lets teachers assign and grade assignments.</i>
Docs	<i>a free online word processor offered by Google.</i>
Gmail	<i>a free email service offered by Google.</i>
Slides	<i>a free online presentation program offered by Google.</i>

Weekly Question: How can formatting help us with assignments and projects?

Suggested In-class Extension Activity: Use the Vocab Graphic Organizer Template with the word “format”.

Standards: ISTE 4b

Vocabulary	
Document	<i>a computer file containing data entered by a user.</i>
Word Processing	<i>the use of computers, software, and printers to get data into printed form.</i>
Text	<i>the actual words of a written work.</i>
Font	<i>set of type or characters all of one style.</i>
Alignment	<i>the proper positioning of parts in relation to one another</i>
Bold	<i>thicker lettering</i>
Italicize	<i>slanted or tilted lettering</i>
Font size	<i>how large the characters displayed on a screen or printed on a page are.</i>
Highlight	<i>to cause (something, such as text or an icon) to be displayed in a way that stands out on an electronic screen.</i>
Format	<i>general plan of organization and arrangement.</i>

Weekly Question: How can we create digital drawings?

Suggested In-class Extension Activity: In groups or pairs, students use Google Drawings to design a drawing of a time they were very excited. It may be abstract or representational.

1. Ask them to use at least 5 of the techniques in the video/reading.
2. They can make it on the computer or just theoretically plan it.
3. Ask them to write out how it was or could be made in Google Drawings, step-by-step.

Standards: ISTE 4b

Vocabulary	
Digital	<i>electronic and especially computerized technology.</i>
Drop-down menu	<i>a list of choices that appears on a computer screen when a button or word is clicked.</i>
Highlight	<i>to mark something in a different color.</i>
Menu bar	<i>a row of menu titles that, when clicked, show dropdown menus of other items or commands.</i>
Toolbar	<i>a strip of buttons with pictures on a computer display so you can do certain things quickly.</i>

Weekly Question: How can we create a simple but effective presentation?

Suggested In-class Extension Activity:

1. Watch a short video of a kid giving a presentation (such as https://www.youtube.com/watch?v=AUIehTS_ezQ or <https://www.youtube.com/watch?v=66yaYmUNOx4>).
2. Ask students to critique the presentation, highlighting the use of the slides vs. what they said and how they said it.

Standards: ISTE 4b

Vocabulary	
Software	<i>a collection of data or computer instructions that tell the computer how to work.</i>
Slide	<i>a single page of a presentation.</i>
Text box	<i>a section of a page that allows a user to enter text.</i>
Insert	<i>to put something into something else.</i>
Upload	<i>to send information from a smaller computer to a larger computer or computer network.</i>

Weekly Question: How can we create and use spreadsheets?

Suggested In-class Extension Activity: Use the Compare and Contrast Template for students to compare Google Sheets to one of the other programs they have learned about: Docs, Slides, or Drawings.

Standards: ISTE 4b

Vocabulary	
Cell	<i>a unit in a table or spreadsheet.</i>
Column	<i>a group of printed or written items (such as numbers or words) shown one under the other down a page.</i>
Row	<i>a straight line of people or things that are next to each other.</i>
Header	<i>text placed at the beginning of a document or the top of a page.</i>

Weekly Question: What is the internet?

Suggested In-class Extension Activity: Use the Vocab Graphic Organizer Template with the word “internet.”

Standards: ISTE 4b

Vocabulary	
Network	<i>two or more computers connected together.</i>
Internet	<i>a large network of connected computers around the world.</i>
Online	<i>done over the Internet.</i>
World Wide Web	<i>a way of sharing information on networks.</i>
Website/web page	<i>a page that is on the World Wide Web.</i>

Weekly Question: How does the internet work?

Suggested In-class Extension Activity: Have students create a timeline of what happens chronologically when they use the internet, for example to search for information; Timeline Template 1; Timeline Template 2

Standards: ISTE 1c, 1d, 3a, 5d

Vocabulary	
Internet	<i>the thousands of computer networks connected to the same big network.</i>
Data	<i>the information that computers work with, such as pictures, numbers, letters, words, or sounds.</i>
Packet	<i>a unit of data sent together over a network or the internet from one computer to another.</i>
Server	<i>a computer that is connected directly to the Internet.</i>
ISP	<i>Internet Service Provider (Ex: AT&T, Comcast, Spectrum, Verizon, ...?)</i>
Protocol	<i>a rule</i>
Client	<i>a computer that connects to servers.</i>
HTTP	<i>HyperText Transfer Protocol (the way that information is arranged and sent on the World Wide Web).</i>

Weekly Question: How can we use email responsibly?

Suggested In-class Extension Activity: Email Sorting Worksheet

Standards: ISTE 1a, 1d, 6a

Vocabulary	
Email Address	<i>letters and numbers that identify where to send an electronic message over the internet.</i>
Inbox	<i>a list where incoming email messages are stored.</i>
Spam	<i>junk email, messages sent to a lot of people at once to try to sell something or harm people's computers.</i>
Subject	<i>a summary of what an email is about.</i>
Reply	<i>a response to the sender of an email.</i>
Attachment	<i>a computer file such as a document or image sent in an email.</i>
CC	<i>Carbon copy- other email addresses an email is sent to that can all see one another's email addresses.</i>
Reply all	<i>a response to the sender of an email and all others who were sent the original email.</i>
Draft	<i>an email that hasn't been sent yet.</i>
Forward	<i>resending an email possibly to a different address, moving the email "forward".</i>

Review:

1. What have we learned about computers and technology?
2. Ask students to reflect on what they have learned.
3. What surprised them the most?
4. What do they remember best?
5. How does their knowledge of technology now compare to their knowledge when they first began the course?
6. Ask students to write quietly or share with a partner, then open up to a class discussion.

Standards: ISTE 1c, 2c