

Second Grade Technology: Computer Science and Design Thinking Curriculum Map 2022

Pacing Guide	Standard Code & Indicator	Sample Learning Activities	Assessment	Additional Standards
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<p>August-October</p> <p>Orientation/ Review of basics/ Google Training</p>	<p>8.1.2.CS.2: Explain the functions of common software and hardware components of computing systems.</p> <p>8.1.2.NI.3: Create a password that secures access to a device. Explain why it is important to create unique passwords that are not shared with others.</p> <p>8.1.2.NI.4: Explain why access to devices need to be secured.</p>	<ul style="list-style-type: none"> -Log in to Google accounts and other school apps -Technology Word Wall -Demonstrate ability to access of Google classroom -Execute word processing activities successfully -Create a Google Doc in response to different prompts -Complete a Google Form and reflect on its results -Collaborate with students from another second grade class via Google -Typing Technique: home row hand placement, correct posture -Use ABCya to master key location and practice speed -Keys of the keyboard and what significant keys do. <p>Instructional Resources: Google Suite brainpop jr. Grow with Google ABCya</p>	<p>Formative Assessments: Classwork Student Participation Teacher Observation</p> <p>Summative Assessments: Logistical control over computer system Creating a doc/word document</p> <p>Benchmark Assessment: BOY Benchmark</p> <p>Accommodations and Modifications</p>	<p>Interdisciplinary Standard Writing W 2.2 Students will demonstrate their ability to type a short writing piece on a google doc.</p> <p>9.4.2.DC.1: Explain differences between ownership and sharing of information.</p> <p>9.4.2.DC.2: Explain the importance of respecting digital content of others.</p>
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<p>November/January</p> <p>Nature of Technology</p>	<p>8.2.2.NT.1: Model and explain how a product works after taking it apart, identifying the relationship of each part, and putting it back together.</p> <p>8.2.2.NT.2: Brainstorm how to build a product, improve a designed product, fix a product that has stopped working, or solve a simple problem.</p>	<ul style="list-style-type: none"> -Take apart a toy or product identifying how all parts make the toy/product work -Brainstorm and gather information on how to build a product or toy. -Fix a broken toy/product and explain -Determine safe and unsafe internet choices -Discuss internet safety <p>Instructional Resources: GSuite brainpop jr. Microsoft Word Grow with Google Netsmartzkids safeside schools- video, website,</p> <p>Teacher Technology: Computer Activ Panel Acitiv View YouTube Videos BrainPop Jr.</p> <p>Student Technology: Computer; iPads</p>	<p>Formative Assessments: Classwork Student Participation Teacher Observation</p> <p>Summative Assessments: Internet Safety Quiz</p> <p>Accommodations and Modifications</p>	<p>Interdisciplinary Standard: K-2-ETS1-1 Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.</p> <p>9.1.2.RM.1: Describe how valuable items might be damaged or lost and ways to protect them.</p> <p>9.4.2.TL.7: Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts.</p>
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<p>February - March</p> <p>Algorithms and Programming</p>	<p>8.1.2.AP.1: Model daily processes by creating and following algorithms to complete tasks.</p> <p>8.1.2.AP.2: Model the way programs store and manipulate data by using numbers or other symbols to represent information.</p> <p>8.1.2.AP.5: Describe a program's sequence of events, goals, and expected outcomes.</p> <p>8.1.2.AP.6: Debug errors in an algorithm or program that includes sequences and simple loops.</p>	<p>-Students will use code.org unit b to learn application and development of coding</p> <p>-Develop understanding of how computers work through code</p> <p>-Identify what code means</p> <p>-Create a loop, sequence, algorithm and event</p> <p>-Edit a loop or sequence to fix errors.</p> <p>Instructional Resources: Code.org Tynker familycodenight.org Disney</p> <p>Teacher Technology: Computer Activ Panel Acitiv View YouTube Videos BrainPop Jr.</p> <p>Student Technology: Computer; iPads</p>	<p>Formative Assessments: Classwork Student Participation Teacher Observation</p> <p>Summative Assessments: Coding Challenge</p> <p>Accommodations and Modifications</p>	<p>Interdisciplinary Standard: 6.1.4.C.16 Coding is a universal place for worldwide creativity and innovation. This is covered by the lessons and approach of the coding unit.</p> <p>9.4.2.TL.4: Navigate a virtual space to build context and describe the visual content.</p> <p>9.4.2.TL.5: Describe the difference between real and virtual experiences.</p> <p>9.4.2.TL.6: Illustrate and communicate ideas and stories using multiple digital tools.</p>
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<p>April-June</p> <p>Databases & Spreadsheets</p>	<p>8.1.2.DA.1: Collect and present data, including climate change data, in various visual formats.</p> <p>8.1.2.DA.3: Identify and describe patterns in data visualizations.</p> <p>8.1.2.DA.4: Make predictions based on data using charts or graphs.</p>	<p>-Identify basic vocabulary: spreadsheet, data, database, sort</p> <p>-Create a database or spreadsheet</p> <p>-Have students organize themselves with different categories</p> <p>-Filter and organize information in a spreadsheet or database</p> <p>-Make predictions based on data collected</p> <p>Instructional Resources: Gsuite training Microsoft Excel</p> <p>Teacher Technology: Computer Activ Panel Acitiv View YouTube Videos BrainPop Jr.</p> <p>Student Technology: Computer; iPads Sheet Google</p>	<p>Formative Assessments: Classwork Student Participation Teacher Observation</p> <p>Summative Assessments: Making a database Manipulation of the data in a spreadsheet</p> <p>Benchmark Assessment: EOY Benchmark</p> <p>Accommodations and Modifications</p>	<p>Interdisciplinary Standard: Math MD.D.10 After inputting data into a spreadsheet, students will create and analyze a graph.</p> <p>9.4.2.IML.2: Represent data in a visual format to tell a story about the data.</p> <p>9.4.2.TL.3: Enter information into a spreadsheet and sort the information.</p> <p>9.4.2.IML.3: Use a variety of sources including multimedia sources to find information about topics such as climate change.</p> <p>9.4.2.IML.4: Compare and contrast the way information is shared in a variety of contexts.</p> <p>9.4.2.DC.7: Describe actions peers can take to positively impact climate change.</p>
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Alternate Assessments: Making an algorithm that works; Looping and debugging an algorithm

21st Century Standards: 9.2.4.A.3 and 9.2.4.A.4

21st Century Skills: Initiative, Productivity and Technology literacy

Career Ready Practice CRP2, CRP8, CRP11