Crest Memorial School Curriculum and Pacing Guide

All activities correspond with marking period essential questions. Activity goes with question as do the the corresponding standards, modifications, accommodations, assessments and 21st century learning skills.

Grade: Seventh

Subject: Technology

Adoption Date: 4/01/14

Revision Date: November 2018

	MP1	MP2	MP3	MP4
Scope and Sequence	1. How can I apply strategies to solve problems? (4 weeks) 2. How can I understand how a computer works? (3 weeks) 3. How can I analyze components necessary to make an app work? (2 weeks) 4. How can I create an app and evaluate its usefulness?	1. How can I create a product to solve a real-world problem? (2 weeks) 2. How can I apply HTML to create a web page? (8 weeks) 3. What strategies can I use to evaluate a computer program and create an improved program? (8 weeks) 4. How can I create code to modify the appearance and style of my web pages? (8 weeks) 5. How can I evaluate appropriateness of web page content? (2 weeks)	1. How can I understand that programming involves creativity and individual expression? (10 weeks) 2. How can I apply digital skills to create computer programs ? (10 weeks) 3. How create a computer program using conditionals, variables, sprites and loops? (6 weeks)	1. How can I apply skills to combine systems together to get more complex information (programming velocity and rotation)? (4 weeks) 2. How can I understand that data help us to solve problems (collisions, detection)? (2 weeks) 3. How can I create a game by programming a computer? (5 weeks)
Instructional Materials	iMac computers, Google Classroom, Code.org Computer Science Discoveries Curriculum	iMac computers, Google Classroom, Code.org Computer Science Discoveries Curriculum, 3D printer, Tinkercad website.	iMac computers, Google Classroom, Code.org Computer Science Discoveries Curriculum	iMac computers, Google Classroom, Code.org Computer Science Discoveries Curriculum
Activities	**1.** Create an aluminum boat and identify parts of problem solving process used. **2.** Classify items as computers/not computers based on whether they use four parts of the definition of a computer. Identify inputs, outputs, processes used, and storage. **3.** Determine input, output, processing, and storage for given	**1.** Design and create a product that solves a problem. 2. Write code using HTML 3. Debug problems in code 4. Create a website using HTML language. 5. Apply content in accordance with copyright law; use materials with Creative Commons license.	1. Students explore how CS and programming play a role in entertainment or as a vehicle for self expression. 2. Code to plot shapes using javascript commands 3. Program an interactive card	1. Coding to move sprites in game lab. 2. Code functions in Gamelab that include draw loops and repeat with single function. 3. Design and create a platform jumper game in Gamelab.

	apps. **4.** Propose an app to solve a problem and present in Slideshow.			
Standards	**Activity 1:** 8.2.8.D.2 **Activity 2:** 8.2.8.E.2 **Activity 3:** 8.2.8.E.2, 8.2.8.D.2 **Activity 4:** 8.1.8.F.1, 8.1.8.D.2	**Activity 1:** 8.1.8.F.18.2.8.C.4 **Activity 2:** 8.2.8.E.4, 8.2.8.A.2-3, **Activity 3:** 8.2.8.E.3-4, **Activity 4:** 8.2.8.E.3-4, 8.1.8.F.1, 8.2.8.C.4 **Activity 5:** 8.1.8.D.3	**Activity 1:** 8.2.8.C.1-8 **Activity 2:** 8.2.8.D.1, 8.2.8.E.1-4 **Activity 3:** 8.2.8.C.1-8, 8.2.8.D.1, 8.2.8.E.1-4	**Activity 1:** 8.2.8.D.1, 8.2.8.E.1-4 **Activity 2:** 8.2.8.D.1, 8.2.8.E.1-4 **Activity 3:** 8.2.8.C.1-8, 8.2.8.D.1, 8.2.8.E.1-4
Accommodations and Modifications	**Special Education:** Simplify task directions, provide oral and written directions, small group instruction, use of graphic organizers. **English language learners:** Assign a buddy, use of visual aids, group projects, use of translation dictionaries. **At Risk of School Failure:** Adjust time for completion, chunk assignments, consistent use of behavior management techniques. **Students with 504 plans:** Reduced amount of work, visually or hearing impaired seated close to Smartboard. **Gifted and Talented Students:** Provide independent learning activities, mentor/teach other students.	**Special Education:** Simplify task directions, provide oral and written directions, small group instruction, use of graphic organizers. **English language learners:** Assign a buddy, use of visual aids, group projects, use of translation dictionaries. **At Risk of School Failure:** Adjust time for completion, chunk assignments, consistent use of behavior management techniques. **Students with 504 plans:** Reduced amount of work, visually or hearing impaired seated close to Smartboard. **Gifted and Talented Students:** Provide independent learning activities, mentor/teach other students.	**Special Education:** Simplify task directions, provide oral and written directions, small group instruction, use of graphic organizers. **English language learners:** Assign a buddy, use of visual aids, group projects, use of translation dictionaries. **At Risk of School Failure:** Adjust time for completion, chunk assignments, consistent use of behavior management techniques. **Students with 504 plans:** Reduced amount of work, visually or hearing impaired seated close to Smartboard. **Gifted and Talented Students:** Provide independent learning activities, mentor/teach other students.	**Special Education:** Simplify task directions, provide oral and written directions, small group instruction, use of graphic organizers. **English language learners:** Assign a buddy, use of visual aids, group projects, use of translation dictionaries. **At Risk of School Failure:** Adjust time for completion, chunk assignments, consistent use of behavior management techniques. **Students with 504 plans:** Reduced amount of work, visually or hearing impaired seated close to Smartboard. **Gifted and Talented Students:** Provide independent learning activities, mentor/teach other students.
Interdisciplinary Connections	**Science/Math**	**Science/Math**	**Science/Math**	**Science/Math**
Assessments	**Formative assessments** Activity Guides Processing quiz **Summative assessments** Project rubric Unit 1 Test	**Formative assessments** Activity Guides Code.org progress indicators **Summative assessments** Project rubric Unit 2 Test	**Formative assessments** Activity Guides Code.org progress indicators **Summative assessments** Project rubric Unit 3, CL 1-14 Test	**Formative assessments** Activity Guides Code.org progress indicators **Summative assessments** Project rubric Unit 3, L15-21 Test

21st Century Themes and Skills	**All Activities:** CRP.K-12.CRP1 CRP.K-12.CRP2 CRP.K-12.CRP4 CRP.K-12.CRP6 CRP.K-12.CRP7 CRP.K-12CRP8 CRP.K-12CRP9 CRP.K-12.CRP11	**All Activities:** CRP.K-12.CRP1 CRP.K-12.CRP2 CRP.K-12.CRP4 CRP.K-12.CRP6 CRP.K-12.CRP7 CRP.K-12CRP8 CRP.K-12CRP9 CRP.K-12.CRP11	**All Activities:** CRP.K-12.CRP1 CRP.K-12.CRP2 CRP.K-12.CRP4 CRP.K-12.CRP6 CRP.K-12.CRP7 CRP.K-12CRP8 CRP.K-12CRP9 CRP.K-12.CRP11	**All Activities:** CRP.K-12.CRP1 CRP.K-12.CRP2 CRP.K-12.CRP4 CRP.K-12.CRP6 CRP.K-12.CRP7 CRP.K-12CRP8 CRP.K-12CRP9 CRP.K-12.CRP11