

**Lesson created by the GMU-ODU CSforAll Team. For more information about this lesson and our CSforAll initiative, contact Dr. Amy Hutchison at** [achutchison1@ua.edu](mailto:achutchison1@ua.edu)

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| **Lesson 5: Scratch Extravaganza & Animation Showcase (~60 min)**  *Grades 3-4* |

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| **Concept:** | |
| **Summary:**  In this lesson, students will co-write an explanatory text. They will use CoCo and Scratch to code and plan an animation using several new look and control blocks. | |
| **Lesson Objectives (learning targets): I can…**   * Understand the main idea of “How to Code a Sandcastle” * Co-write an explanatory text in a small group * Plan my animation in CoCo * Learn about any new Scratch blocks * Code my animation in Scratch * Give feedback on my partner’s animation | |
| **Content Standard(s)** | **Computer Science Standard(s)** |
| The student will write in a variety of forms to include narrative, descriptive, opinion, and expository.  a) Engage in writing as a process.  b) Identify audience and purpose.  c) Use a variety of prewriting strategies.  d) Use organizational strategies to structure  writing according to type.  e) Use transition words to vary sentence structure. | The student will construct sets of step-by-step instructions (algorithms), both independently and collaboratively  a) using sequencing;  b) using events. |

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| **Materials** |
| **Lesson materials:**   * Chromebook/Laptop * Internet Access * [Teacher slides](https://drive.google.com/file/d/1OLOKolaD7jLN2-lHOq7F2zV5gWqe8xhC/view?usp=drive_link) * Scratch offline editor (app) * Read-aloud of “How to Code a Sandcastle”: <http://www.youtube.com/watch?v=EX1OXR7eTME> * Hard copies of the [Speedwriting storyboard](https://www.dropbox.com/scl/fi/uhd1r2ycxty007i7vr2hx/Speed-writing-storyboard.docx.docx?dl=0&rlkey=opnyg4vwdss8ba5fquk9k7hly) * Scratch block choice board: <https://www.dropbox.com/scl/fi/qr0zc9jwadoijs5usbos0/Scratch-block-choice-board.pptx?dl=0&rlkey=kr6avdpx0mlgmwpkpyd5ffmmh>   **Supplemental resources:** |

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| **Lesson Structure and Activities** |
| **(10 min) Warm-up & Introduction:**  **NOTE: All slides for this lesson are scripted so that, if needed, you can see exact definitions and instructions for teaching this lesson in the notes at the bottom of the teacher slide deck.**   * Optional: Introduce lesson, learning goals, and resources (Slides 2-4) * Play readaloud of “How to Code a Sandcastle” (slides 5-6)   + Option to stop at 3:36 * In small groups or as a class, debrief the story with the questions displayed on slide 7 and 8 * Discuss the answers to debrief questions (slide 9) |
| **(25 min) Direct Instruction & Guided Practice:**  Co-writing in small groups (slides 11-13)   * Hand out a hard copy of the [speed-writing storyboard](https://www.dropbox.com/scl/fi/uhd1r2ycxty007i7vr2hx/Speed-writing-storyboard.docx.docx?dl=0&rlkey=opnyg4vwdss8ba5fquk9k7hly) to each student. Set a timer for 5 minutes (can be more or less depending on your class) and instruct students to begin writing an explanatory text (of any kind) but to only fill in the box titled “first.” * Once the timer goes off, instruct students to pass the storyboard to the person to their right. Each student will read the existing story and pick up where the other person left off but only fill in one more box. * Repeat this process until all sections (First, Next, Then, Last, Finally) are filled in. |
| **(25 min) Independent Practice:**  Planning in CoCo (slides 15-19)   * Review features of CoCo level 5 with students: it is very similar to level 4 but there are more questions in column 2 and it is now possible for students to add additional rows. * Students should each pick one of the stories that their group co-wrote together. It’s okay for multiple students to pick the same one as long as each student works independently on their own CoCo project and Scratch animation. * Pause and let students work independently in CoCo   Scratch block choice board (slides 20-22)   * Pause for 10-15 minutes and allow students to learn about any new Scratch blocks they see in CoCo using the explanatory videos linked in the choice board on slide 21. * In the same small groups, students should discuss any new blocks and questions they might have.   Coding in Scratch (slides 23-26)   * Using their CoCo project, students should finish animating their stories in Scratch. * **Important:** Instruct students to share their Scratch projects to the teacher studio using the appropriate naming scheme (student name + lesson 5 story); [video available](https://www.dropbox.com/scl/fi/k2t7ydsi6sdans7gohpft/Student-How-To-Add-A-Project-To-A-Studio-In-Scratch.mp4?rlkey=6jmehhmfutgb3jiirjxynvf29&st=cifroqna&dl=0) on slide 26 if needed. |
| **(5 min) Wrap up: slides 28-30**   * Each student should share their animation with a partner from another group. The partner should share two things they loved about the animation, and two questions they have. Then, have students switch roles and repeat for the other student’s project. * If time: have each group pick one animation to share with the whole class. |
| **Assessment Strategy:**  Did the student…   * Understand the main idea of “How to Code a Sandcastle” * Co-write an explanatory text in a small group * Plan an animation in CoCo * Learn about any new Scratch blocks * Code an animation in Scratch * Give feedback on a partner’s animation |