

Unit Title: Computer Literacy through Coding

Grade Level: 5TH GRADE

Subject Area: (example: Science, Physics; English, Short Stories) -Detective Short Stories

Duration/Length/Number of class periods: – 6 class periods

Description: Teaching today's students and keeping them engaged is becoming more and more of a challenge. However, using technology, we will present children a new and refreshing avenue to learn while having fun doing what they like to do best. We will use a series of mystery/challenges to solve problems through short story writing and animation while teaching students the basic coding skills needed to solve those problems. Teaching fundamental concepts like coding exposes students to more than just language; it teaches the kind of logic that will be applicable regardless of what programming tools a student may pick up in the future. By providing a visual environment that exists side-by-side with the coding challenges, students can see the results of their efforts in real time, giving them a better understanding of what to do next. We will be using “Alice” as our technology tool for its proven success in engaging and retaining diverse and underserved groups in computer science, coupled with its popularity as a unique platform for storytelling.

Established Goals (National, State, Local):

Mn Standard – 5.6.3.3 (or Common Core ccss.ELA Literacy.w.5.3.5)

-Write narratives to develop real or imagined experience or events using effective technique, descriptive or clear event sequences.

Mn Standard – 5.8.8.8. – Create an individual or shared multimedia work or digital text for a specific purpose

b) Publish the work and share it with an audience.

What Enduring Understandings are desired?

- This topic is important because coding will be crucial for many jobs in the near future
- Linking what students enjoy (storytelling and technology) with an otherwise difficult skill of writing
- Building teamwork and practical skills while sharpening their critical and creative thinking skills
- Applying their knowledge of storytelling, tempering it with some mystery and magical realism in computer animation
- Keeping them engaged and excited about learning.

What Essential Questions will be considered?

- Have you read any stories that made a mark in your life?
- Name some things that stood out for you in that story?

-How did the story end?
 -Have you imagined what will happen if that story came to life?
 -In the next several days, we will learn more about animation using some special words and characters, known as “coding” have you heard that word before? If so, please explain.
 -Have you had any digital experience outside of classroom normal activities with an iPad...how did it feel?

Students will know / be able to:

1. Understand the concept of a story line and elements of a story (character, setting, plot, etc.)
2. Follow instructions while creating content and solving problems using computer language/software
3. Create own short mystery stories, while making connection between algorithm and computer animation
4. Build self-confidence, teamwork, and collaboration.

Description <i>Units must include at least one of each formative, summative, introductory activity and learning activity. Check the</i>	Formative	Summative	Introductory Activity	Learning Activity	Student Technology Used	Teacher Technology Used	ISTE Standards
Period 1 – General introductions, name, and the types of stories that they like. This will be followed by a discussion on short stories, how they are different from regular “long” stories. A discussion of students’ own favorite stories and why. Best story that they have read or heard about and what makes it best for them. This will lead us to introduce the concept of story elements. What they are and what they represent. Using students’ own examples, we will dissect a story identifying its parts: characters, plot, setting, problem and solution. This will also give the teacher an idea of where students are with their knowledge of story elements, and how to prepare them for the task ahead.	X		X	X			II
Period 2 – With prompts and directions, students will work on own short stories, using the elements of a story. To add to the mystery and trigger creativity, students will be advised to consider detective mystery stories. Teacher will model by reading a couple of short detective stories from books like, <i>The Best American Mystery Stories of the Century</i> by Tony Hillerman and Otto Penzler, or <i>Writers for the Future</i> by L. Ron Hubbard. This will help with context and background knowledge for especially our very struggling students. Will have students research on their iPads additional stories, and the rest of the period will be dedicated to students writing their own original mystery stories, editing and	X			X	X	X	I, II, III,

reviewing with peers. (peer review). Teacher will also provide input on preliminary copies, while monitoring their stories as they develop them.							
Period 3 – Introduces the software, “Alice.” Reviews appropriate use of technology guidelines. Shows several examples of animated stories. Teacher shows how to open program, start with a template, where to find objects, upload, modify (to make it unique to individual student), save, etc. In short, they learn how to set up their work and execute simple commands using the tool. Students pair up and look at one another’s work, determine what will be animated and what will not. Identify the story elements and which symbols will represent them, decide whether to bubble the discussions or to use sounds, etc. Additional research will have to be done to collect other media files on their wikis, and record their reflections as they progress. Some work may have to be completed as homework) in order to stay on schedule.	X		X	X	X		I, IV, V, VI.
Period 4 – Students share their work up to this point. They take turns in showing their work and answering questions from peers and teacher. The group works on fine tuning their story and animation, using the “Alice” files they created looking for errors, coherence, as they outline the characters, settings and plot, and prepare algorithm for their final presentation. Teacher will review the rules and expectations, explain language activity and how final assessment will be done following an established rubric.	X			X	X	X	I, II, IV, V, VI
Period 5 – Mini presentation for the class and 4 th grade class. Teams will present their original animated stories to their peer audience. They will describe their projects, the process: writing their stories, coding, animation, etc. and what motivated them to write their digital stories. They will take questions and suggestions from their peers and teacher(s).	X				X	X	II
Period 6 – Culminating Activity – DIGITAL AUTHOR’s CAFÉ. Before the final presentation, teams will review their animated short stories, make a test run, ensure their technology is in order, make corrections from feedback from the presentation of the previous period. The final presentation before a wider audience, including families, other students, and community members will take place in the afternoon. Again, students will present their finished products to an engaged audience, will answer any questions and may share links to their animated stories. Their work will be evaluated following an established rubric and audience satisfaction by way of a quick survey.		X		X	X		II, V.

Materials, tools and resources: (Mystery) Short Story books; ipads, “Alice” software, paper, pencils, Refreshments for the final presentation.

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Additional credit given to
