

Dabble Lab Lesson Plan

Series: *Code It Yourself 4D*

Title: *Animation and Presentation from Scratch: 4D An Augmented Reading Experience*, by Rachel Ziter

Coding Games from Scratch: 4D An Augmented Reading Experience, by Rachel Ziter

Making Music from Scratch: 4D An Augmented Reading Experience, by Rachel Ziter

GENERAL INFORMATION: Grade Level(s): 3–5 Lesson Plan Title: Animation Creation
 Dabble Lab Book: *Code It Yourself 4D*, by Rachel Ziter Curriculum Area: Technology and Math

Overview of Lesson: In this lesson, students will apply what they know about math to animate a character, or sprite, in Scratch. This is a great opportunity for a collaborative lesson with another teacher or more specifically a math teacher. If you are collaborating with a math teacher, plan ahead to align this lesson with what they are teaching (e.g., shapes, angles, math modeling, etc.).

BENCHMARKS OR LEARNING OBJECTIVES:

Inquire.A.2: Learners display curiosity and initiative by recalling prior and background knowledge as context for new meaning.

Inquire.B.3: Learners engage with new knowledge by following a process that includes generating products that illustrate learning.

Inquire.C.1: Learners adapt, communicate, and exchange learning products with others in a cycle that includes interacting with content presented by others.

Inquire.C.2: Learners adapt, communicate, and exchange learning products with others in a cycle that includes providing constructive feedback.

Inquire.C.3: Learners adapt, communicate, and exchange learning products with others in a cycle that includes acting on feedback to improve.

Collaborate.C.1: Learners work productively with others to solve problems by soliciting and responding to feedback from others.

ASSESSMENT METHODS & CRITERIA:

Students will each pick a shape that they wish to create with animation in Scratch. Use the graphic organizer to help each student plan their actions before applying them in Scratch. Each student will be assigned a partner to trade graphic organizers with to see if both can successfully follow one another's directions to create the intended shape.

RESOURCES AND OTHER LEARNING SUPPORT MATERIALS:

- Any book in Capstone's series *Code It Yourself 4D*, by Rachel Ziter
- Graphic Organizer
- Paper and pencil
- Computer
- Scratch project created by student
- Assigned partner

INSTRUCTION AND ACTIVITIES:

1. This activity should be done after students have read one of the Code It Yourself 4D books.
2. Introduce Scratch animation. Show students how to use the motion, events, pen, and control tools. These tools will help them form an understanding of their options.
3. Walk students through the graphic organizer they will each complete for the Scratch project they y each will create.
4. Model how to move a Sprite to create a shape of your choice. (This is where you can collaborate with the math teacher to know if there is a specific shape students have studied.)
5. Instruct students to pick a shape and then fill out the graphic organizer to make a plan for their Sprite’s creation of a shape.
6. Ask students to raise their hands when they are done with their graphic organizer, so you can look it over and make suggestions before they get started with Scratch.
7. Once students finish the graphic organizer, ask students to trade papers with their neighbors.
8. Ask students to then follow their neighbor’s instructions in the graphic organizer to see if they can successfully create the shape their peer intended.
9. Once students have tried to complete the Sprite’s shape creation, ask students to discuss their experience with their neighbor. Ask them to collaborate to make any changes, until they both successfully complete their partner’s intended shape.
10. Once students have completed their animated shapes, the math teacher can have students complete a worksheet or share in a discussion the types of angles in their partner’s shape or apply another math concept using their critical thinking skills.

GRAPHIC ORGANIZER

Name: _____ Date: _____ Partner’s Name: _____

Step	Scratch Tool	Description of Code

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