

General Management Tips:

1. Hands-free signal for students to get assistance.

When students raise their hands, they can no longer use the computer. Use two colored paper tents or paper cups (red/green). Have students place green over red if they are doing well and red over green if they need help.

2. Use hands-free signal to get students attention.

Require hands to be off of the computer when wanting students to pay attention to the teacher. We had students do a computer “stretch” with hands clasped behind their neck. Other options include wiggling fingers or waving hands to signal that they are paying attention.

3. Use student-experts.

Some students will have more experience at computers. Use these students (or train some) to be able to help other students with simpler technical issues.

4. Turn off monitors or close laptops during demonstrations and directions.

To help students know when to attend to the teacher, direct them to turn off their monitors or close their laptops, or turn away from the computer (depending on the layout of the room).

Possible Modifications and Accommodations:

1. Partner a student in need with a more advanced (and helpful) peer.

It is common for students to engage in “pair programming” to advance their understanding. Pair programming involves students, usually of the same gender, working on the same computer together.

2. Modify requirements of the assignment.

Instead of requiring students to program 3 scenes of a story, try 2 scenes. Instead of requiring students to use 5 sprites, try 2 or 3.

3. Start scripts for the student.

To create scripts in Scratch, a student must start with an Event block (i.e. “When key clicked”), and program a corresponding action (i.e. “Glide 10 steps”). A teacher could discuss a student’s storyboard, and assist the student in starting his or her scripts with Event blocks. Then, the student only needs to program the desired actions.

Partner 1 Number: _____

Partner 2 Number: _____

Science and Scratch: Programming Digital Stories

Your Mission: (1) Select your favorite science topic that you learned about this year.
(2) Plan a story that shows your understanding of the science topic.
(3) Then, program your story in Scratch!

1. What is your science topic? _____

2. **PLAN:** Create a storyboard using the boxes below. Consider which Scratch tools or blocks you will use to create the story. When you finish, check in with an adult before moving to the computer!

<p>Pictures:</p> <p>Draw a series of pictures to show your story!</p>					
<p>How will you program?</p> <p>Which Octopi tools could you use?</p>					

3. **PROGRAM:** Open a blank Scratch project. Click "Save as". Type in "Science, Student #". Begin programming your science story!

Partner 1 Number: _____

Partner 2 Number: _____

4. **OPTIMIZE:** Brainstorm with your partner. How can you make your program better? Can you use fewer blocks? Or, introduce a new Scratch tool you haven't used yet (e.g., broadcast and receive, scene or costume changes). Write or draw your ideas below.

5. **REFLECT:** COMPLETE AT THE END OF CLASS

Were you able to create the story you imagined? Why or why not?

If you could program the story again, how could you make it better? What would you change?
