Lesson plan (#   )

Adopted from:	Grade: Intermediate	Lesson duration:
Authors: (Your sub group's name here) **Dawn Garrabrant** **Gabriela Panayoti** **Laurie Lanfranchi**		**45 minutes**

Topic/Title of lesson:	Effective Troubleshooting Strategies

STANDARD(s) ADDRESSED *(Include the performance expectation number and text of each standard.)*	**8.1.5.CS.3 Identify potential solutions for simple hardware and software problems using common troubleshooting strategies.**
CS PRACTICE(s) *that students will engage in throughout the lesson.* P 13-15 of NJSLS	**8.1.5.CS.3**
CS CORE IDEA(s) or SUB-CONCEPT(s) *related to the performance expectation(s).* P 20-34. includes core idea and performance expectations which are useful for designing general goals, specific objectives, and learning criteria down below	**Shared features allow for common troubleshooting strategies that can be effective for many systems.**
CENTRAL FOCUS *(The central focus is an overarching goal of the lesson or big idea for student learning.)*	**SWBAT follow strategies for troubleshooting hardware and software on devices.**
EU/EQ (*The enduring understanding(s) and/or essential question(s) that guide the lesson.*) *Here are some useful examples from math:* *https://jaymctighe.com/downloads/Essential-Questions-in-Mathematics.pdf*	**How can we use troubleshooting strategies to effectively use our devices?**
PRIOR KNOWLEDGE AND CONCEPTIONS *(What prior knowledge, skills and/or academic language do these students need to have that will help them be successful with this lesson? Any misconceptions you may anticipate?)*	**computer software and hardware**

UDL/PLANNED SUPPORT

(Discuss the universally designed decisions guided by learner diversity and/or individualized adaptations for the variety of learners in your class/group who may require different strategies/support (e.g., children with IEPs or 504 plans, English language learners, children at different points in the developmental continuum, struggling readers, and/or gifted children).

UDL: *How are you universally designing your lesson with all your learners in mind? What other characteristics of diverse learners should be considered?*	**Multiple means of representation**	**Multiple means of action and expression**	**Multiple Means of engagement**
Additional ADAPTATIONS, MODIFICATIONS, and SUPPORTS for individual learners (IEPs, 504s, ELLs) *If you were not able to meet your focus learners needs through UDL, what individual adaptations will you use to meet your focus learners needs (especially ELLS)*	**Students will be given troubleshooting posters (with icons) to assist in collaborative group work.** **Students will be provided with sentence starters for required written responses.**		

ACADEMIC VOCABULARY/ LANGUAGE (including different coding languages)/ SYNTAX (rules of how to combine symbols to make "correct" statements)	*Vocabulary:* *Language:* *Syntax:*	*Describe the additional supports for each language demand in this lesson. Address both the whole class and individual needs.*
LEARNING OBJECTIVES	**LEARNING CRITERIA** *(How will you know that students have met and/or are moving toward meeting that LO?)*	**ASSESSMENT** *(What will be the pre assessment, formative, or summative assessment(s) in this lesson?)* Do Now Group Work Exit Ticket
Should include both core ideas and concepts, and practices		

MATERIALS, RESOURCES, and INSTRUCTIONAL TECHNOLOGY

What resources and technology do you need to teach the lesson:	What materials, technology will students need?
- Polyvision/Smartboard - Chromebooks	Should reflect the UDL planned supports identified above Chromebooks

INSTRUCTIONAL STRATEGIES AND LEARNING ACTIVITIES

(Describe explicitly what the teacher and the students will do to meet learning outcomes. Use bulleted or numbered list)

	What is the teacher doing?	What are students doing? (including adaptations)
LAUNCH/ Beginning (mins) *How will you engage students and capture their interest? 3-7 minutes*	**Do Now: Turn & Talk** Teacher will pose a question to launch a discussion of technology troubleshooting procedures.	**Do Now: Turn & Talk** **Option 1: What are the first three things you would do to survive in Creator Mode in Minecraft?** **Option 2: What are the steps to handwashing?**
LEARNING ACTIVITIES/ Middle (mins) *"I do" "We do" "You do" How will you explain/ demonstrate knowledge /skills required of each objective? How will you ensure that students have multiple opportunities to practice? How will you address the academic language demands?*	**Whole Class Brainstorm:** **List problems encountered on devices in school. Teacher will lead class discussion and create a T-Chart.** **Identify the most common problem:** **Chromebook freezes** **Model Troubleshooting Strategies:** **Close Tabs** **Clear History Cache/Cookies** **Shutdown/Restart** **Teacher will provide student groups with problematic devices for troubleshooting practice.**	**Whole Class Brainstorm:** **List problems encountered on devices in school. Students will participate in class discussion.** **Students will view the teacher demonstration of troubleshooting procedures.** **Students will break out into groups and collaborate to troubleshoot a problematic device provided by the teacher.**

CLOSURE/ End (mins) *How will students summarize and state the significance of what they learned? 3-7 minutes*	Provide students with an exit ticket to check for understanding.	Exit Ticket: What is one effective troubleshooting strategy you can use on a problematic device?

Extension/Reinforcement/Homework: Create a troubleshooting poster for the classroom and/or school community to share strategies.
Family/Community Engagement—

* Please attach copies of assessments and/or handouts to be used