Lesson Topic	5. Pair programming to establish debugging protocols
Inquiry	Why do we work with partners and teams in coding? What collaborative tools are necessary to debug with a partner?
Standards	● 7-8.CT.6 / 9-12.CT.6 Overall development and debugging of game
Objective	SWBAT ● Utilize pair programing and rubber ducky debugging techniques in order to debug faulty code ● Implement a process in partners to follow when debugging is necessary
Resources	n/a
Agenda	
Starter	Do Now: ● What collaborative tools do you know? Which have been useful for you in the past? ● What debugging tools or strategies have you used before? Why were they effective or not?
Guided Practice (mini lesson)	Guide students on the rubber ducky debugging method – in their case they may not have a ducky but will have each other they can do the same thing with. Present a faulty piece of code in the appropriate language for your class. Explain the goal of the program and then talk out the steps and what I want to happen to my rubber ducky/class.(provided with snap blocks) Briefly review the driver and navigator roles on the handout
Independent Practice	Provide students a handout with three code snippets (provided with snap blocks) They will each be assigned driver once and navigator once and then they can decide which is which They will debug and fix the code in the three examples They will follow rubber ducky idea and explain the goal of their program and what is happening verse what they want to happen. (use handout to build stems)
Closing/exit slip	We will share what worked well in the debugging and what methods or strategies groups were able to come up with. (can create poster/anchor chart with these suggestions) Students will all write out their first step they will take the next time their code is not working
Assessment	Check handout and if groups were able to solve the bug and use the guiding stems to build vocab.