Warren Township Public School District
Curriculum

Subject: Computer Science	**Grade: K**	**Unit: Computer Coding**
Total Number of Lessons: 7	**Unit Time Frame: Marking Period**	
Instructional Materials (Include specific text or digital resource links that are used by teachers and students within the unit):		
www.code.org		

Goals	**Skills / Understandings**
To create computer programs that will help students learn to collaborate with others, develop problem-solving skills, and persist through difficult tasks.	• List steps to move characters around a map • Arrange directions to reach predetermined goals • Predict where characters will land, given a list of steps • Use pair programming to complete collaborative tasks with or without a computer • Order movement commands as sequential steps in a program • Represent an algorithm as a computer program • Predict where a program will fail • Modify an existing program to solve errors (debug)

NJ Student Learning Standards and Descriptors:

NJSLS
- 8.2.2.ED.2: Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.
- 8.2.2.ED.3: Select and use appropriate tools and materials to build a product using the design process.
- 8.2.2.ED.4: Identify constraints and their role in the engineering design process.

Unit Essential Questions:	**Student Vocabulary:**	**Lesson Learning Statement:**
How does computational thinking build and enhance problem solving?	• Algorithm • Program • Debug	• Understanding what algorithms are. • Developing common language around creating algorithms. • Understanding the block-based programming interface. • Developing sequential algorithms. • Debugging programs that contain errors. • Relating the concept of algorithms back to real-life activities.

Interdisciplinary Connects (include standard number and activity examples):	**Assessment Strategies / Resources:**	**Benchmark Assessments / Products: Specific common assessments both formative and summative (provide a link to the assessments)**
ELA ● L.k.4 Vocabulary Acquisition and Use ● RF.K.1. Print Concepts	End of lesson assessments (ie., completed programs and assessment questions*)	● End of unit performance assessment: Using Code.org's Play Lab (Course 1: Lesson 16). ● Students (working in pairs) will code a story with each member creating the actions for his/her character using the skills learned in the unit.
21st Century Life and Careers - Technology (link to standard 8.1 and 8.2) / Career and 21st Century Skills (link to standard 9.1, 9.2, 9.2) (Include standard number and activity examples from each area):		
● CRP2. Apply appropriate academic and technical skills. ● CRP4. Communicate clearly and effectively and with reason. ● CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. ● CRP11. Use technology to enhance productivity.		
Warren QSAC Accommodations Chart:		
● Modifications and accommodations as listed in IEP. ● Scaffolding ● Modeling ● Cooperative Learning Tasks ● Active engagement strategies		

*** Each Code.org lesson provides 1-4 assessment questions at the end.**