<table>
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<th>ORGANIZING THEME/TOPIC</th>
<th>FOCUS STANDARDS &amp; SKILLS</th>
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| **Object Oriented Programming (OOP)**  | **Focus Standards & Skills**  
KS 10152.1.18 Demonstrate knowledge of software development environment.  
- Expand on OOP principles of SDGD I (e.g. modular design, Integrated Development Environments, languages, documentation).  
- Control data flow using scope of variables, parameters, inheritance and encapsulation (e.g. private, public, static, and void/non-void methods).  
- Use API documentation and research to develop solutions to game design problems.  |
| Time Frame: 2 weeks                    |                                                                                                                                                                                                                                                                                                                                                      |

| **Theme/Topic:**                      | **Focus Standards & Skills**  
Program Logic  
KS 10152.1.22 Demonstrate knowledge of key constructs and commands specific to a language.  
- Apply multi-path branching to solve logical game design problems.  
- Create nested logical structures to solve game design problems.  |
| Time Frame: 5 weeks                   |                                                                                                                                                                                                                                                                                                                                                      |

| **Data Types and Structures**         | **Focus Standards & Skills**  
KS 10152.1.21 Demonstrate knowledge of the concepts of data and procedural representations.  
- Create programs using numeric data types, operators, order of operations.  
- Solve programming problems using Boolean data and Boolean logical operators.  
- Use Strings and String operators to process string data.  
- Develop game programs that utilize arrays and standard array algorithms (e.g. search, sort).  |
| Time Frame: 4 weeks                   |                                                                                                                                                                                                                                                                                                                                                      |

| **Game Design**                       | **Focus Standards & Skills**  
KS 10152.1.23 Demonstrate knowledge of how programming control structures are used to verify correctness.  
- Expand on game design and control features from Software Development and Game Design I.  
- Create and control (e.g. movement, animation) appropriate game graphics.  
- Build games that mimic real-world object behaviors.  
- Control game operation via standard tools (e.g. time-keeping, life span, power-ups).  
- Enhance game control with ‘winning’ screens and multi-level operation.  
- Design, build, test, and complete fully functional game projects.  |
| Time Frame: 4 weeks                   |                                                                                                                                                                                                                                                                                                                                                      |
| Career Readiness | KS 10152.2.8 Identify and explore career opportunities in Information Technology.  
| --- | --- |
| | • Function effectively in individual and group project situations.  
| Time Frame: 1 week | • Demonstrate knowledge of industry norms for workplace conditions and expectations.  
| | • Use knowledge of career paths and trends to construct a plan for career development. |