

**NEPTUNE TOWNSHIP SCHOOL DISTRICT**

# **Advanced Multi-Media Programming Curriculum Grade 8**



**NEPTUNE TOWNSHIP SCHOOL DISTRICT**

Office of the Superintendent  
60 Neptune Blvd.  
Neptune, NJ 07753-4836

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Office of the Superintendent  
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# NEPTUNE TOWNSHIP SCHOOL DISTRICT

## ADVANCED MULTI-MEDIA PROGRAMMING CURRICULUM

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## **NEPTUNE TOWNSHIP SCHOOL DISTRICT**

### **Advanced Multi-Media Programming**

#### **Acknowledgements**

The Advanced Multimedia Programming curriculum was developed for Neptune Middle School through the dedicated efforts of Michael Jahoda, Neptune Middle School Computer Science Teacher, in cooperation with Dawn Reinhardt, Department Chairperson, and under the guidance of Cheryl Romano, Supervisor for Curriculum, Instruction and Assessment.

The teacher is to be commended for his dedication in creating this curriculum and for his expertise in the area of computer programming. This curriculum guide introduces the students to basic computer skills and programming applications. It is our hope that this guide will serve as a valuable resource for the staff members who teach this course and that they will feel free to make recommendations for its continued improvement.

The Advanced Multimedia Programming curriculum is outlined in the related pacing guide which is in alignment to the 2014 New Jersey Student Learning Standards (NJSLS) for Technology.

## **NEPTUNE TOWNSHIP SCHOOL DISTRICT**

### **DISTRICT MISSION STATEMENT**

The primary mission of the Neptune Township School District is to prepare all students for life in the twenty-first century by encouraging them to recognize that learning is a continuing process. It is with high expectations that our schools foster:

- A strong foundation in academic areas, modern technologies, life skills and the arts.
- A positive and varied approach to teaching and learning.
- An emphasis on critical thinking skills and problem-solving techniques.
- A respect for and an appreciation of our world, its resources, and its peoples.
- A sense of responsibility, good citizenship, and accountability.
- An involvement by the parents and the community in the learning process.

## **Neptune Township School District**

### **Educational Outcome Goals**

The students in the Neptune Township schools will become life-long learners and will:

- Become fluent readers, writers, speakers, listeners, and viewers with comprehension and critical thinking skills.
- Acquire the mathematical skills, understandings, and attitudes that are needed to be successful in their careers and everyday life.
- Understand fundamental scientific principles, develop critical thinking skills, and demonstrate safe practices, skepticism, and open-mindedness when collecting, analyzing, and interpreting information.
- Become technologically literate.
- Demonstrate proficiency in all New Jersey Core Curriculum Content Standards (NJCCCS), New Jersey Student Learning Standards (NJSLS), and Next Generation Science Standards (NGSS).
- Develop the ability to understand their world and to have an appreciation for the heritage of America with a high degree of literacy in civics, history, economics and geography.
- Develop a respect for different cultures and demonstrate trustworthiness, responsibility, fairness, caring, and citizenship.
- Become culturally literate by being aware of the historical, societal, and multicultural aspects and implications of the arts.
- Demonstrate skills in decision-making, goal setting, and effective communication, with a focus on character development.
- Understand and practice the skills of family living, health, wellness and safety for their physical, mental, emotional, and social development.
- Develop consumer, family, and life skills necessary to be a functioning member of society.
- Develop the ability to be creative, inventive decision-makers with skills in communicating ideas, thoughts and feelings.
- Develop career awareness and essential technical and workplace readiness skills, which are significant to many aspects of life and work.



# **ADVANCED MULTI-MEDIA PROGRAMMING CURRICULUM**

## **COURSE DESCRIPTION**

This course is intended for students in the 8<sup>th</sup> grade as an introduction to basic principles of gaming and game programming. Students will learn the process of developing a game. They will discuss and learn terms and concepts used, as well as core design elements. They will develop an understanding of balance and design. They will also have the opportunity to playtest their games and evaluate the games created by others.

<b>Unit Plan</b>	Video Game Design (Coding and Game Design)
<b>Suggested Time Frame</b>	45 class blocks

### **Overview / Rationale**

In this unit, students will learn the process of developing a video game. They will discuss and learn terms and concepts used, as well as game design elements. They will develop an understanding of basic coding using code.org and the structure of game design. Then by using Gamestar Mechanic students will discuss and learn to manipulate rules, the game space, core mechanics, parameters, goal creation, and systems. Students will be assessed using design challenges and their understanding of the vocabulary taught throughout this unit. The last part of this unit will culminate with a focus on the students creating their own version of a video game. Students will generate a detailed slideshow demonstrating their video game genre, storyline, plot, characters, game levels and overall gameplay.

### **Stage 1: Identify Desired Results**

#### **NJSLS for Technology**

##### **NJSLS 8.1 Educational Technology**

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and create and communicate knowledge

##### **Strand A. Technology Operations and Concepts**

- **8.1.2.A.4** Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).

##### **NJSLS 8.2 Technology Education, Engineering, Design and Computational Thinking**

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

##### **Strand A. The Nature of Technology: Creativity and Innovation**

- **8.2.2.A.1** Define products produced as a result of technology or of nature
- **8.2.2.A.2** Describe how designed products and systems are useful at school, home and work.
- **8.2.2.A.3** Identify a system and the components that work together to accomplish its purpose
- **8.2.2.A.4** Choose a product to make and plan the tools and materials needed.
- **8.2.2.A.5** Collaborate to design a solution to a problem affecting the community.

##### **Strand B. Technology and Society**

- **8.2.2.B.1** Identify how technology impacts or improves life
- **8.2.2.B.3** Identify products or systems that are designed to meet human needs.

##### **Strand C. Design**

- **8.2.2.C.1** Brainstorm ideas on how to solve a problem or build a product.

- **8.2.2.C.2** Create a drawing of a product or device that communicates its function to peers and discuss.
- **8.2.2.C.3** Explain why we need to make new products.

<b>Essential Questions:</b>	<b>Enduring Understandings:</b>
<ul style="list-style-type: none"> <li>• What are an individual's responsibilities for using technology?</li> <li>• What constitutes misuses and how can it best be prevented?</li> <li>• How can I transfer what I know to new technological situations/experiences?</li> <li>• When are the most sophisticated tools required? When are the simplest tools best?</li> </ul>	<p><b><i>Students will understand that...</i></b></p> <ul style="list-style-type: none"> <li>• Technology use can have positive or negative impact on both users and those affected by their use.</li> <li>• A tool is only as good as the person using it.</li> <li>• The design process is fundamental to technology and engineering.</li> </ul>
<b>Knowledge:</b>	<b>Skills:</b>
<p><b><i>Students will know...</i></b></p> <ul style="list-style-type: none"> <li>• How to create game rules and modify the playable area.</li> <li>• How to assess core mechanics and parameters to enhance gameplay.</li> <li>• Create goals and use system sprites to increase game difficulty.</li> <li>• How to design a basic video game.</li> <li>• The proper vocabulary and terminology for video game design.</li> <li>• How to assess which gaming components are critical to video game design.</li> </ul>	<p><b><i>Students will be able to...</i></b></p> <ul style="list-style-type: none"> <li>• Apply the concept of game rules to the playable space.</li> <li>• Use core mechanics and parameters to enhance gameplay.</li> <li>• Create goals and use system sprites to increase difficulty.</li> <li>• Design a basic video game.</li> <li>• Apply proper vocabulary and terminology to their video game designs.</li> <li>• Evaluate critical components and elements of gaming structure and design.</li> </ul>

<b>In this unit plan, the following 21st Century Life and Careers skills are addressed:</b>				
<b>Check ALL that apply – 21<sup>st</sup> Century Themes</b>		<b>Indicate whether these skills are:</b>		
		<ul style="list-style-type: none"> <li>• <b>E – encouraged</b></li> <li>• <b>T – taught</b></li> <li>• <b>A – assessed</b></li> </ul> <p><b>Career Ready Practices</b></p>		
<b>9.1</b>	<b>Personal Financial Literacy</b>	E	CRP1. Act as a responsible and contributing citizen and employee.	
X	Income and Careers	T	CRP2. Apply appropriate academic and technical skills.	
	Money Management	E	CRP3. Attend to personal health and financial well-being.	

	Credit and Debt Management		T	CRP4. Communicate clearly and effectively and with reason.
	Planning, Saving, and Investing		TE	CRP5. Consider the environmental, social and economic impacts of decisions.
	Becoming a Critical Consumer		TE	CRP6. Demonstrate creativity and innovation.
	Civic Financial Responsibility		TE	CRP7. Employ valid and reliable research strategies.
	Insuring and Protecting		TE	CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
<b>9.2</b>	<b>Career Awareness, Exploration, and Preparation</b>		A	CRP9. Model integrity, ethical leadership and effective management.
X	Career Awareness		TE	CRP10. Plan education and career paths aligned to personal goals.
X	Career Exploration		TEA	CRP11. Use technology to enhance productivity.
X	Career Preparation		T	CRP12. Work productively in teams while using cultural global competence.

Interdisciplinary Connections	
<p><b>ELA Common Core State Standards</b></p> <ul style="list-style-type: none"> <li>• <b>2.SL.1.</b> Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</li> <li>• <b>2.SL.1.a.</b> Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).</li> <li>• <b>2.SL.1.b.</b> Build on others' talk in conversations by linking their comments to the remarks of others.</li> </ul> <p><b>Reading: Key Ideas and Details:</b></p> <ul style="list-style-type: none"> <li>• <b>2.RL.1.</b> Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.</li> <li>• <b>2.RI.7.</b> Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.L.2.e. Consult reference materials, including beginning dictionaries.</li> </ul>	

Teacher Resources	
<b>Websites</b>	<a href="http://www.code.org">www.code.org</a> <a href="http://www.gamestarmechanic.com">www.gamestarmechanic.com</a>
<b>Texts</b>	
<b>Worksheets</b>	

Stage 2 – Assessment Evidence	
<b>Other Evidence:</b> <i>Formative Assessments</i> <ul style="list-style-type: none"> <li>• Informal Observations</li> <li>• Exit Slips</li> <li>• Self-Assessments</li> <li>• Games</li> <li>• Questioning</li> </ul>	<b>Other Evidence:</b> <i>Pre-Assessments &amp; Summative Assessments</i> <ul style="list-style-type: none"> <li>• Rubric based scoring</li> </ul>

### Rubric Video Game Design

Rubric Categories	4	3	2	1
<b>Creativity/ Appearance</b>	Super creative and original. Time was spent planning and designing unique features.	Creative and appearance helps draws users attention.	A little creative and appearance is lacking important features.	Is not creative and appearance is flawed.
<b>Understandability and Challenging</b>	Game rules and goal were thoughtful and engaging and incorporated flow. User wanted to play game again.	Game rules and goal were thorough and clear. User was engaged.	Game rules and goal covered the basics. User was not really engaged.	Game rules and goal were unclear and disorganized User was confused.
<b>Programming</b>	Project showed advanced understanding of game design platform.	Project showed understanding of game design platform.	Project showed some understanding of game design platform.	Project showed little understanding of game design platform.
<b>Process (plan, design, create, test and evaluate)</b>	Student made significant use of the design process. Used project time constructively, finished early or added additional elements. Game was unique and creative with 100% original content	Student used design process. Used project time constructively. Game was a creative remix or original that included many original sprites, background or sound effects.	Student tried out the design process. Used project time well sometimes. Game was a an adapted idea and included some original sprites, background or sound effects	Student did not get involved in design process Did not use project time well. Game was not original and did not include any original sprites, background or sound effects

### Stage 3 – Learning Plans

#### Code.org - Minecraft Designer and Adventurer (3 Class Periods)

	Instructional Strategies	Descriptions
<b>Lesson Objective:</b>	<p><i>We are learning to ...</i></p> <ul style="list-style-type: none"> <li>• Demonstrate proper mechanics of video game design.</li> <li>• Describe how a story is vital to video game creation.</li> <li>• Plan and create a multimedia presentation including images and sound.</li> <li>• Demonstrate knowledge of terms and vocabulary used in video game making.</li> </ul>	
<b>Suggested Student Learning Activities:</b>	<p><b>Day(s) 1-5:</b> Students will begin a tutorial of code.org; Minecraft Designer. Students will be expected to watch various video tutorials and complete basic coding as determined by their progress in a sequential format. Students can watch each video tutorial as many times as needed until each step is completed.</p> <ul style="list-style-type: none"> <li>• Upon completion of www.code.org, Minecraft Designer, students will complete code.org, Minecraft Adventurer.</li> <li>• Students will be expected to watch various video tutorials and complete basic coding as determined by their progress in a sequential format.</li> <li>• Students can watch each video tutorial as many times as needed until each step is completed.</li> <li>• Upon completion of code.org, Minecraft Adventurer, students will complete an additional coding application of their choice; Star Wars, Frozen, etc.</li> </ul>	

<b>Accommodations:</b>	<p><b>ELL Support:</b></p> <ul style="list-style-type: none"> <li>• Show pictures to familiarize students with some of the vocabulary for number grids.</li> <li>• Utilize Google translate to convert documents into native languages.</li> <li>• Activate Google</li> </ul>	<p><b>Special Education Students (These are just suggested ideas to modify instruction. All modifications and accommodations should be specific to each individual child's IEP):</b></p> <ul style="list-style-type: none"> <li>• Refer back to the student's IEP and learning plan.</li> <li>• Additional handouts will be offered to those students who need them.</li> <li>• Multiple levels of assistance will be</li> </ul>
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	<p>translator to communicate with students.</p> <ul style="list-style-type: none"> <li>Utilize hand motions and body motions to guide students throughout the lesson.</li> </ul>	<p>available between teacher and student.</p> <ul style="list-style-type: none"> <li>Sight and hearing impaired students will receive priority seating.</li> </ul>
	<p><i>Gifted students will...</i></p> <ul style="list-style-type: none"> <li>Be encouraged to use a large variety of platform tools that extend beyond the lesson parameters.</li> <li>Continue to code additional code.org applications of their choice.</li> </ul>	<p><i>Students in Danger of Failing will...</i></p> <ul style="list-style-type: none"> <li>Watch additional tutorials that offer guidance towards various coding levels.</li> </ul>



**Gamestar Mechanic - Quest 1, Episodes 1-4 (3 Class Periods)**

	<b>Instructional Strategies</b>	<i>Descriptions</i>
<b>Lesson Objective:</b>	<p><i>We are learning to ...</i></p> <ul style="list-style-type: none"> <li>• Demonstrate proper mechanics of video game design.</li> <li>• Describe how a story is vital to video game creation.</li> <li>• Plan and create a multimedia presentation including images and sound.</li> <li>• Demonstrate knowledge of terms and vocabulary used in video game making.</li> <li>• Evaluate critical components and elements of gaming structure and design.</li> </ul>	
<b>Suggested Student Learning Activities:</b>	<p><b>Day(s) 1-5:</b> Using Gamestar Mechanic, students will learn the beginning concepts of designing games. They will discuss and learn to manipulate rules, the game space, core mechanics, parameters, goal creation, and systems.</p> <ul style="list-style-type: none"> <li>• Students will begin a working with Gamestar Mechanic and completing; Quest 1, Episodes 1-4. After each episode there will be a class discussion identifying key terms that were used in each episode (quest, sprite, mission). The students will continue completing the episodes until they reach the end of episode 4.</li> <li>• After episode 4 is completed and the overall lesson is completed, the students will discuss all terms and concepts learned, as well as the core design elements, which are the topics of the first 4 episodes.</li> <li>• If there is any extra time upon assignment completion, students may complete the bonus levels that coincide with the first four missions of Gamestar Mechanic.</li> </ul>	

<b>Accommodations:</b>	<p><b><i>ELL Support:</i></b></p> <ul style="list-style-type: none"> <li>• Show pictures to familiarize students with some of the vocabulary for number grids.</li> <li>• Utilize Google translate to convert documents into native languages.</li> <li>• Activate Google translator to</li> </ul>	<p><b><i>Special Education Students (These are just suggested ideas to modify instruction. All modifications and accommodations should be specific to each individual child's IEP):</i></b></p> <ul style="list-style-type: none"> <li>• Refer back to the student's IEP and learning plan.</li> <li>• Additional handouts will be offered to those students who need them.</li> <li>• Multiple levels of assistance will be available between teacher and student.</li> </ul>
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	<p>communicate with students.</p> <ul style="list-style-type: none"> <li>Utilize hand motions and body motions to guide students throughout the lesson.</li> </ul>	<ul style="list-style-type: none"> <li>Sight and hearing impaired students will receive priority seating.</li> </ul>
	<p><b><i>Gifted students will...</i></b></p> <ul style="list-style-type: none"> <li>Be encouraged to use a large variety of platform tools that extend beyond the lesson parameters.</li> <li>Use code.org to continue to practice javascript coding.</li> </ul>	<p><b><i>Students in Danger of Failing will...</i></b></p> <ul style="list-style-type: none"> <li>Play games already created in Gamestar Mechanic to familiarize themselves with the gaming platform.</li> </ul>

**Gamestar Mechanic - Quests 1, 2, 3 (20 Class Periods)**

	<b>Instructional Strategies</b>	<b>Descriptions</b>
<b>Lesson Objective:</b>	<p><i>We are learning to ...</i></p> <ul style="list-style-type: none"> <li>• Demonstrate proper mechanics of video game design.</li> <li>• Describe how a story is vital to video game creation.</li> <li>• Plan and create a multimedia presentation including images and sound.</li> <li>• Demonstrate knowledge of terms and vocabulary used in video game making.</li> <li>• Evaluate critical components and elements of gaming structure and design.</li> </ul>	
<b>Suggested Student Learning Activities:</b>	<p><b>Day(s) 1-6:</b> Using Gamestar Mechanic, students will complete a series of challenges and quests in Gamestar Mechanic to increase their understanding of the game making process. With each mission that they complete, they will increase their inventory of items that they can use to create their own games. Students will make multiple games through this unit and will be finally assessed on their published game.</p> <ul style="list-style-type: none"> <li>• Students will begin a working with Gamestar Mechanic and completing; Quest 1, Episodes 5-7. After each episode we will be a class discussion identifying key terms that were used in each episode (avatar, boss, top down). The students will continue completing the episodes until they reach the end of episode 7.</li> <li>• After episode 7 is completed and the overall lesson is completed, the students will discuss the terms and concepts learned, as well as the core design elements.</li> <li>• After the discussion, students will begin rebuilding the episodes, continuing to learn the fundamentals of gaming and design.</li> <li>• If there is any extra time upon assignment completion, students may complete the bonus levels that coincide with the last three missions of Gamestar Mechanic.</li> </ul> <p><b>Day(s) 7-20</b></p> <ul style="list-style-type: none"> <li>• Students will begin a working with Gamestar Mechanic and completing; Quest 2, Episodes 1-7 “Addison Joins the Rogue.” After each episode we will be a class discussion identifying key terms that were used in each episode (platform game, hack, game, etc.). The students will continue completing the episodes until they reach the end of episode 7.</li> <li>• After episode 7 is completed and the overall lesson is completed, the students will discuss the terms and concepts learned, as well as</li> </ul>	

	<p>the core design elements.</p> <ul style="list-style-type: none"> <li>• After the discussion, students will begin rebuilding the episodes, continuing to learn the fundamentals of gaming and design.</li> <li>• If there is any extra time upon assignment completion, students may complete the bonus levels that coincide with the seven missions of Quest 2.</li> </ul> <p><b>Day(s) 21-25</b></p> <ul style="list-style-type: none"> <li>• Students will begin a working with Gamestar Mechanic and completing; Quest 3, Episodes 1-7 “Dungeon of the Rogue.” After each episode we will be a class discussion identifying key terms that were used in each episode (damage blocks, bonus levels, etc.).The students will continue completing the episodes until they reach the end of episode 7.</li> <li>• After episode 7 is completed and the overall lesson is completed, the students will discuss the terms and concepts learned, as well as the core design elements.</li> <li>• After the discussion, students will begin rebuilding the episodes, continuing to learn the fundamentals of gaming and design.</li> <li>• If there is any extra time upon assignment completion, students may complete the bonus levels that coincide with the seven missions of Quest 2.</li> </ul>
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<b>Accommodations:</b>	<p><b><i>ELL Support:</i></b></p> <ul style="list-style-type: none"> <li>• Show pictures to familiarize students with some of the vocabulary for number grids.</li> <li>• Utilize Google translate to convert documents into native languages.</li> <li>• Activate Google translator to communicate with students.</li> <li>• Utilize hand motions and body motions to guide students throughout the lesson.</li> </ul>	<p><b><i>Special Education Students (These are just suggested ideas to modify instruction. All modifications and accommodations should be specific to each individual child’s IEP):</i></b></p> <ul style="list-style-type: none"> <li>• Refer back to the student’s IEP and learning plan.</li> <li>• Additional handouts will be offered to those students who need them.</li> <li>• Multiple levels of assistance will be available between teacher and student.</li> <li>• Sight and hearing impaired students will receive priority seating.</li> </ul>
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	<p><i>Gifted students will...</i></p> <ul style="list-style-type: none"> <li>• Be encouraged to use a large variety of platform tools that extend beyond the lesson parameters.</li> <li>• Use code.org to continue to practice javascript coding.</li> </ul>	<p><i>Students in Danger of Failing will...</i></p> <ul style="list-style-type: none"> <li>• Play games already created in Gamestar Mechanic to familiarize themselves with the gaming platform.</li> </ul>
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**Gamestar Mechanic - Game Creation Practice (4 Class Periods)**

	<b>Instructional Strategies</b>	<i>Descriptions</i>
<b>Lesson Objective:</b>	<p><i>We are learning to...</i></p> <ul style="list-style-type: none"> <li>• Demonstrate proper mechanics of video game design.</li> <li>• Describe how a story is vital to video game creation.</li> <li>• Plan and create a multimedia presentation including images and sound.</li> <li>• Demonstrate knowledge of terms and vocabulary used in video game making.</li> <li>• Evaluate critical components and elements of gaming structure and design.</li> </ul>	
<b>Suggested Student Learning Activities:</b>	<p><b>Day(s) 1-3:</b> Having developed an understanding of how video games are assembled, students will use Gamestar Mechanic to design and create their own game. Students will create a “Top Down” version of a game with the following criteria:</p> <ul style="list-style-type: none"> <li>• Students will begin working independently with Gamestar Mechanic.</li> <li>• The game must be timed and last no longer than one minute.</li> <li>• The game must have damage blocks.</li> <li>• The game must have a goal block.</li> <li>• The game must have a hero, boss and enemies.</li> <li>• The game must be beatable. (The game creator must be able to beat the game before it is published)</li> </ul> <p>Upon completion of the game, students will take turns playing the games of others. Students will be looking to share feedback with classmates about the games. Students should be looking to discuss:</p> <ul style="list-style-type: none"> <li>• Difficulties of the game play.</li> <li>• Use of damage blocks and goal blocks.</li> <li>• Changes to be made for better gameplay.</li> </ul> <p><b>Day(s) 4-6:</b> Having developed an understanding of how video games are assembled, students will use Gamestar Mechanic to design and create their own game. Students will create a “Platform” version of a game with the following criteria:</p> <ul style="list-style-type: none"> <li>• Students will begin working independently with Gamestar Mechanic.</li> <li>• The game must have an imported, custom background.</li> </ul>	

	<ul style="list-style-type: none"> <li>• The game must be timed and last no longer than two minutes.</li> <li>• The game must have damage blocks.</li> <li>• The game must have a goal block at the end.</li> <li>• The game must have a hero, boss and enemies.</li> <li>• The game must be beatable. (The game creator must be able to beat the game before it is published)</li> </ul> <p>Upon completion of the game, students will take turns playing each others games. Students will be looking to share feedback to each other about the games. Students should be looking to discuss;</p> <ul style="list-style-type: none"> <li>• Difficulties of the game play.</li> <li>• Use of damage blocks and goal blocks.</li> <li>• Changes to be made for better gameplay.</li> </ul>
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<b>Accommodations:</b>	<b><i>ELL Support:</i></b> <ul style="list-style-type: none"> <li>• Show pictures to familiarize students with some of the vocabulary for number grids.</li> <li>• Utilize Google translate to convert documents into native languages.</li> <li>• Activate Google translator to communicate with students.</li> <li>• Utilize hand motions and body motions to guide students throughout the lesson.</li> </ul>	<b><i>Special Education Students (These are just suggested ideas to modify instruction. All modifications and accommodations should be specific to each individual child's IEP):</i></b> <ul style="list-style-type: none"> <li>• Refer back to the student's IEP and learning plan.</li> <li>• Additional handouts will be offered to those students who need them.</li> <li>• Multiple levels of assistance will be available between teacher and student.</li> <li>• Sight and hearing impaired students will receive priority seating.</li> </ul>
	<b><i>Gifted students will...</i></b> <ul style="list-style-type: none"> <li>• Be encouraged to use a large variety of platform tools that extend beyond the lesson parameters.</li> <li>• Use code.org to continue to practice javascript coding.</li> </ul>	<b><i>Students in Danger of Failing will...</i></b> <ul style="list-style-type: none"> <li>• Play games already created in Gamestar Mechanic to familiarize themselves with the gaming platform.</li> </ul>

## Making a Video Game (15 Class Periods)

	Instructional Strategies	Descriptions
<b>Lesson Objective:</b>	<p><i>We are learning to ...</i></p> <ul style="list-style-type: none"> <li>• Demonstrate proper mechanics of video game design.</li> <li>• Describe how a story is vital to video game creation.</li> <li>• Plan and create a multimedia presentation including images and sound.</li> <li>• Demonstrate knowledge of terms and vocabulary used in video game making.</li> <li>• Evaluate critical components and elements of gaming structure and design.</li> </ul>	
<b>Suggested Student Learning Activities:</b>	<p><b>Day(s) 1-15:</b> Using everything they learned from previous lessons in video game making, students will now be creating a real video game “storyline” with or without a partner that will act as if they are going to be “pitching” this game to a real video game company! Project requirements include;</p> <ul style="list-style-type: none"> <li>• Students are going to create a PowerPoint Slide Show detailing every aspect of their video Game.</li> <li>• Students must create a game box cover.</li> <li>• Students must label their genre/style of Game.</li> <li>• Students must have AT LEAST 4 Characters in their Game. (ONE/TWO main Characters, ONE/TWO Supporting Characters, ONE MAIN BOSS, Minor Supporting Characters).</li> <li>• Each MAIN character must have a short bio about them.</li> <li>• Students must explain their PLOT (storyline) in detail so “gamers” can understand the point of the game and want to play it.</li> <li>• Students must explain how many levels/boards their game will have and give a detailed explanation about each level and how their game is won. (Students MUST HAVE AT LEAST 4 LEVELS)</li> <li>• Students must create an interactive example of one of their levels/boards using PowerPoint or google docs sampling how their game would look.</li> <li>• Students will present and “pitch” their finished video game to the class as if they are attempting to earn the privilege of actually creating their game.</li> </ul>	



<b>Accommodations:</b>	<b><i>ELL Support:</i></b> <ul style="list-style-type: none"> <li>• Show pictures to familiarize students with some of the vocabulary for number grids.</li> <li>• Utilize Google translate to convert documents into native languages.</li> <li>• Activate Google translator to communicate with students.</li> <li>• Utilize hand motions and body motions to guide students throughout the lesson.</li> </ul>	<b><i>Special Education Students (These are just suggested ideas to modify instruction. All modifications and accommodations should be specific to each individual child's IEP):</i></b> <ul style="list-style-type: none"> <li>• Refer back to the student's IEP and learning plan.</li> <li>• Additional handouts will be offered to those students who need them.</li> <li>• Multiple levels of assistance will be available between teacher and student.</li> <li>• Sight and hearing impaired students will receive priority seating.</li> </ul>
	<b><i>Gifted students will...</i></b> <ul style="list-style-type: none"> <li>• Be encouraged to use a large variety of platform tools that extend beyond the lesson parameters.</li> <li>• Develop actual gameplay using "scratch" or other game making platforms.</li> </ul>	<b><i>Students in Danger of Failing will...</i></b> <ul style="list-style-type: none"> <li>• Use Google Docs to review three video games they play and give detailed explanations as to why they enjoy these games.</li> </ul>



