

Winslow Township Middle School

Distance Learning Instruction Plan

Robotics STEM

Robotics STEM Grades 7/8

Week 1: Programming Animations

Learning Target: Animation is a considerable and ever-evolving field within the programming industry. Students will study the programming skills required to create animation and implement different animation techniques in their work.

NJSLA Standards:	Computer-based	Paper-based
6.1.8.A.3.a 6.1.8.A.3.g 6.1.8.A.4	<ul style="list-style-type: none"> ❑ VidCode: Use JavaScript to create a Starter Project of your choosing following the tutorial provided (1 Day) ❑ VidCode: Intro to JavaScript- Complete Activities 1 and 2 to create a Filter (4 Days) ❑ Optional Challenge: VidCode- Complete Activities 3 and 4 to create a Digital Quilt and your own Meme <p>Accommodations:</p> <ul style="list-style-type: none"> ❑ Scratch: Add a Sprite and Animate a Sprite Tutorials (1 Day) ❑ Scratch: Code a Cartoon Tutorial (1 Day) ❑ Scratch: Dance Party Tutorial and Project (3 Days) 	<ul style="list-style-type: none"> ❑ Compound Conditionals Lesson and “unplugged” coding practice commands (5 Days) <p>https://docs.google.com/document/d/1YTWnkcYKwbPbkdC2tAQtSAcx54atn23k54RUkFSuPe4/edit?usp=sharing</p> <p>Accommodations: Complete only even numbered questions after completing the first practice page.</p>

Week 2: 3D Modeling

Learning Target: Three-dimensional drawing skills are increasingly important in today’s technologically advanced society and can be

applied to creating files for CAD programs, CNC machines, and 3D printers. Students will learn about these technologies and learn how to create 3D drawings.

NJSLA Standards:	Computer-based	Paper-based
6.1.8.A.3.f 6.18.D.3.c	<ul style="list-style-type: none"> ❑ TinkerCad: “Starters” Tutorials (1 Day) ❑ TinkerCad: “Key Ring” Tutorial (1 Day) ❑ TinkerCad: one basic skills tutorial of student’s choosing (1 Day) ❑ TinkerCad: Start your own project and develop your own keychain prototype (2 Days) ❑ Optional Challenge: Use Google SketchUp to create your dream house (tutorial and link posted on Google Classroom) <p>Accommodations:</p> <ul style="list-style-type: none"> ❑ TinkerCad: Complete the “Starters” Tutorials only 	<ul style="list-style-type: none"> ❑ “3D Printing: How Does It Work?” Reading Passage and Questions (2 Days) ❑ Orthographic and Isometric sketching worksheets. (3 Days) <p>Accommodations: Complete Orthographic and Isometric sketching worksheets only.</p>

Week 3: STEM Career Exploration

Learning Target: Students will explore various sectors of STEM based careers and be able to synthesize what they’ve learned in a series of response questions.

NJSLA Standards:	Computer-based	Paper-based
8.2E Grade 8 CPI 1 Identify ways computers are used that have had an impact across the range of human activity and within different careers where	<ul style="list-style-type: none"> ❑ EverFi Course: Game Development Studio and assessment (1 Day) ❑ EverFi Course: Data Champions and assessment (1 day) ❑ EverFi Course: Medical Machines and assessment (1 day) ❑ EverFi Course: Home of the Future and assessment (1 Day) ❑ EverFi Course: Perfect Playlist and assessment (1 Day) 	<ul style="list-style-type: none"> ❑ Read eGFI Magazine and complete Activity 1.1.5f Engineering Careers Guided Questions as you read (4 Days) ❑ Complete conclusion questions after reading (1 day) <p>Accommodations: Choose only two careers to read about from the eGFI Magazine and complete guided questions #1-4, then the conclusion questions</p>

<p>they are used.</p>	<p>Optional Challenge: EverFi Course: Designing the Ultimate Playlist Prototype with assessment</p> <p>Accommodations: Choose only two pathways and accompanying assessments to complete on our EverFi platform course.</p> <p>http://2vm8bf2lp0ls7wg0f11ozc14sa.wpengine.netdna-cdn.com/wp-content/uploads/2019/08/PM_Endavor-Curriculum-Guide-Update_070119_369012929-1.pdf</p> <p>http://2vm8bf2lp0ls7wg0f11ozc14sa.wpengine.netdna-cdn.com/wp-content/uploads/2019/08/PM_Endavour-Course-Outline-Update_070119_369010575-1.pdf</p>	
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Week 4 : Digital Citizenship: My Media Personal Challenge

Learning Target:

- Make an inventory of their media choices and how those choices make them feel.
- Brainstorm personal strategies for balancing media use.
- Create personal guidelines for promoting healthy media balance.

Lesson Guide: https://docs.google.com/document/d/1IyTfF5zM_IkSiuGpm0xs_KLZl4Rx4eNzZrybOtyZV2s/edit?usp=sharing

Slide Show: <https://docs.google.com/presentation/d/1fITBebQ8sMf6CmeV9bCFR3Ymi4RQEbI5oPCOvX78hB4/edit?usp=sharing>

Media Balance Strategy Worksheet: https://docs.google.com/document/d/1J3orjhzbleKYRbG_6ZAHwUHbvUWxLs92INcvVlsw-bo/edit?usp=sharing

Lesson Quiz: <https://forms.gle/7wWjmVQCCx7PT2HP9>

<p>NJSLA Standards:</p>	<p>Computer-based</p>	<p>Paper-based</p>
<p>8.1.8.D.1 Understand and model appropriate online behaviors related to cyber safety, cyber bullying,</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Warm Up: Taking Stock: My Media Use: A Personal Challenge - Lesson Slides (Google Classroom) Slides 2-6, Question and Response, (1 Day) <input type="checkbox"/> Analyze My Media Use: My Media Use: A Personal Challenge- Lesson Slides (Google Classroom Slides 7-9, Question and 	<ul style="list-style-type: none"> <input type="checkbox"/> Warm Up: Taking Stock: My Media Use: A Personal Challenge - Lesson Slides Print Out of: Slides 2-6, Question and Response, (1 Day) <input type="checkbox"/> Analyze My Media Use: My Media Use: A Personal Challenge- Lesson Slides Print Out of Slides 7-9, Question and Response, My Media Choices Inventory Worksheet (1 Day)

<p>cyber security, and cyber ethics including appropriate use of social media.</p> <p>8.1.8.D.5 Understand appropriate uses for social media and the negative consequences of misuse.</p>	<p>Response, My Media Choices Inventory Worksheet (1 Day)</p> <ul style="list-style-type: none"> ❑ Evaluate Creating Healthy Media Balance: My Media Use: A Personal Challenge- Lesson Slides (Google Classroom) Slides 10-1, Extension Challenge Question (1 Day) ❑ Wrap Up My Media Strategy: My Media Use: A Personal Challenge- Lesson Slides (Google Classroom) Slides 13-14, My Media Balance Strategy Worksheet, Lesson Quiz (2 Day) <p>Accommodations:</p> <ul style="list-style-type: none"> ❑ Warm Up: Taking Stock: My Media Use: A Personal Challenge - Lesson Slides (Google Classroom) Slides 2-6, Question and Response, (2 Days) ❑ Analyze My Media Use: My Media Use: A Personal Challenge- Lesson Slides (Google Classroom Slides 7-9, Question and Response, My Media Choices Inventory Worksheet (3 Days) 	<ul style="list-style-type: none"> ❑ Evaluate Creating Healthy Media Balance: My Media Use: A Personal Challenge- Lesson Slides Print Out of Slides 10-1, Extension Challenge Question Worksheet (1 Day) ❑ Wrap Up My Media Strategy: My Media Use: A Personal Challenge- Lesson Slides Print out of Slides 13-14, My Media Balance Strategy Worksheet, Lesson Quiz (2 Day) <p>Accommodations:</p> <ul style="list-style-type: none"> ❑ Warm Up: Taking Stock: My Media Use: A Personal Challenge - Lesson Slides Print Out of: Slides 2-6, Question and Response, (2 Days) ❑ Analyze My Media Use: My Media Use: A Personal Challenge- Lesson Slides Print Out of Slides 7-9, Question and Response, My Media Choices Inventory Worksheet (3 Days)
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