Middle Township High School Esports Curriculum

Middle Township Public Schools

216 S. Main Street

Cape May Court House, NJ 08210

Born on – August 2022

Approved- August 2022

ACKNOWLEDGMENTS

PURPOSE

The purpose of the Middle Township Public School's Esports Curriculum is to provide an articulated course of instruction aligned with the 2020 New Jersey Student Learning Standards for Career Readiness and Computer Science and Design Thinking Standards.

It is designed to prepare student learners for career readiness, life literacies, and key skills and provides students with the necessary skills to make informed career and financial decisions, engage as responsible community members in a digital society, and to successfully meet the challenges and opportunities in an interconnected global economy.

GOALS

1. All students will learn the values gaming for health, enjoyment, challenge, self-expression, and/or social interaction.
2. All students will demonstrate competency in motor skills and movement patterns needed to perform a variety of physical activities.
3. All students will demonstrate understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of specific games.
4. All students will comprehend concepts related to health promotion and preventative care in gamers as related to the following content areas (the content areas are not listed in any particular order): Nutrition, Injury prevention, Personal health, Mental and emotional health, substance abuse, misuse, abuse, and addiction.
5. All students will demonstrate the ability to access valid health information and health-promoting products and services.
6. All students will demonstrate the ability to maintain health-enhancing behaviors and reduce health risks.
7. All students will demonstrate the ability to use interpersonal communication skills that respects self and others in online gaming settings.
8. The student will analyze the reciprocal influence of eSports, culture, media, technology, and other factors.
9. The student will demonstrate the ability to use goal-setting and decision-making skills to enhance gaming success
10. The student will demonstrate the ability to advocate for scholastic acceptance of e-sports.

Esports

Units of Study

High School Esports Scope and Sequence

Units	Estimated Pacing
Unit 1: Introduction to Gaming and Esports	10 days
Unit 2: Team Building and Personal Health	20 days
Unit 3: Positive Communication and Interaction	20 days
Unit 4: Careers in Esports and Educational Opportunities	20 days
Unit 5: Technology Operation and Maintenance	20 days

Esports Unit 1
Unit Title: Introduction to Gaming and Esports

Standard: 9.4 Life Literacies and Key Skills: This standard outline key literacies and technical skills such as critical thinking, global and cultural awareness, and technology literacy* that are critical for students to develop to live and work in an interconnected global economy.

Standard: 8.1 Computer Science: People interact with a wide variety of computing devices that collect, store, analyze, and act upon information in ways that can affect human capabilities both positively and negatively. The physical components (hardware) and instructions (software) that make up a computing system communicate and process information in digital form.

Indicators

New Jersey Student Learning Standards for Career Readiness Life Literacy and Key Skills/Computer Science and Design Thinking:
9.4.12.CI.1: Demonstrate the ability to reflect, analyze, and use creative skills and ideas (e.g., 1.1.12prof.CR3a)
9.4.12.CI.2: Identify career pathways that highlight personal talents, skills, and abilities (e.g., 1.4.12prof.CR2b, 2.2.12.LF.8).
9.4.12.CI.3: Investigate new challenges and opportunities for personal growth, advancement, and transition (e.g., 2.1.12.PGD.1).
9.4.12.CT.1: Identify problem-solving strategies used in the development of an innovative product or practice (e.g., 1.1.12acc.C1b, 2.2.12.PF.3).
9.4.12.CT.2: Explain the potential benefits of collaborating to enhance critical thinking and problem solving (e.g., 1.3E.12profCR3.a).
9.4.12.CT.4: Participate in online strategy and planning sessions for course-based, school-based, or other project and determine the strategies that contribute to effective outcomes.
 9.4.12.DC.1: Explain the beneficial and harmful effects that intellectual property laws can have on the creation and sharing of content (e.g., 6.1.12.CivicsPR.16.a).
9.4.12.DC.4: Explain the privacy concerns related to the collection of data (e.g., cookies) and generation of data through automated processes that may not be evident to users (e.g., 8.1.12.NI.3)
9.4.12.DC.7: Evaluate the influence of digital communities on the nature, content and responsibilities of careers, and other aspects of society (e.g., 6.1.12.CivicsPD.16.a)
 9.4.12.TL.1: Assess digital tools based on features such as accessibility options, capacities, and utility for accomplishing a specified task
9.4.12.TL.3: Analyze the effectiveness of the process and quality of collaborative environments.
8.1.12.CS.1: Describe ways in which integrated systems hide underlying implementation details to simplify user experiences.
8.1.12.CS.2: Model interactions between application software, system software, and hardware.
8.1.12.CS.3: Compare the functions of application software, system software, and hardware.
8.1.12.IC.1: Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices.
8.1.12.NI.1: Evaluate the scalability and reliability of networks, by describing the relationship between routers, switches, servers, topology, and addressing.

Standards that Support Learning

Infused within the units are connections to the New Jersey Student Learning Standards for English Language Arts.

Reading Standards for Informational Text:
NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words
NJSLSA.R1. Read closely to determine what the text says explicitly and to make logical inferences and relevant connections from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
NJSLSA.R3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.
NJSLSA.R9. Analyze and reflect on how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take

Writing Standards:
NJSLSA.W1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
NJSLSA.W2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content
NJSLSA.W4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
NJSLSA.W6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.
NJSLSA.W9. Draw evidence from literary or informational texts to support analysis, reflection, and research.
NJSLSA.W10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

Instructional Plan	

Concepts	Learning Targets
● The usability, dependability, security, and accessibility of devices within integrated systems are important considerations in their design as they evolve. ● A computing system involves interaction among the user, hardware, application software, and system software. ● The scalability and reliability of the Internet are enabled by the hierarchy and redundancy in networks. Network topology is determined by many characteristics. ● The design and use of computing technologies and artifacts can positively or negatively affect equitable access to information and opportunities. ● With a growth mindset, failure is an important part of success. ● Innovative ideas or innovation can lead to career opportunities. ● Collaboration with individuals with diverse experiences can aid in the problem-solving process,	Students who understand concepts will be able to: ● Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices. ● Predict the potential impacts and implications of emerging technologies on larger social, economic, and political structures, using evidence from credible sources. ● Evaluate the scalability and reliability of networks, by describing the relationship between routers, switches, servers, topology, and addressing ● Describe ways in which integrated systems hide underlying implementation details to simplify user experiences. ● Model interactions between application software, system software, and hardware. ● Compare the functions of application software, system software, and hardware. ● Demonstrate the ability to reflect, analyze, and use creative skills and ideas ● Identify career pathways that highlight personal talents, skills, and abilities ● Investigate new challenges and opportunities for personal growth, advancement, and transition ● Identify problem-solving strategies used in the development of an innovative product or practice ● Explain the potential benefits of collaborating to enhance critical thinking and problem solving ● Participate in online strategy and planning sessions for course-based, school-based, or other project and determine the strategies that contribute to effective outcomes. ● Explain the beneficial and harmful effects that intellectual property laws can have on the creation and sharing of content

particularly for global issues where diverse solutions are needed.

- Laws govern the use of intellectual property and there are legal consequences to utilizing or sharing another's original works without permission or appropriate credit.

- Laws govern many aspects of computing, such as privacy, data, property, information, and identity. These laws can have beneficial and harmful effects, such as expediting or delaying advancements in computing and protecting or infringing upon people's rights.

- Digital communities influence many aspects of society, especially the workforce. The increased connectivity between people in different cultures and different career fields have changed the nature, content, and responsibilities of many careers

- Digital tools differ in features, capacities, and styles. Knowledge of different digital tools is helpful in selecting the best tool for a given task.

- Collaborative digital tools can be used to access, record and share different

- Explain the privacy concerns related to the collection of data (e.g., cookies) and generation of data through automated processes that may not be evident to users

- Evaluate the influence of digital communities on the nature, content and responsibilities of careers, and other aspects of society

- Assess digital tools based on features such as accessibility options, capacities, and utility for accomplishing a specified task

- Analyze the effectiveness of the process and quality of collaborative environments.

viewpoints and to collect and tabulate the views of groups of people.	

Esports Unit 2
Unit Title: Team Building and Personal Health

Standard: 9.4 Life Literacies and Key Skills: This standard outline key literacies and technical skills such as critical thinking, global and cultural awareness, and technology literacy* that are critical for students to develop to live and work in an interconnected global economy.

Standard: 8.1 Computer Science: People interact with a wide variety of computing devices that collect, store, analyze, and act upon information in ways that can affect human capabilities both positively and negatively. The physical components (hardware) and instructions (software) that make up a computing system communicate and process information in digital form.

Standard: 8.2 Design Thinking: This standard, previously standard 8.2 Technology Education of the 2014 NJSLS – Technology, outlines the technological design concepts and skills essential for technological and engineering literacy. The new framework design, detailed previously, includes Engineering Design, Ethics and Culture, and the Effects of Technology on the Natural world among the disciplinary concepts.

Indicators

New Jersey Student Learning Standards for Career Readiness Life Literacy and Key Skills/Computer Science and Design Thinking:
9.4.12.CT.2: Explain the potential benefits of collaborating to enhance critical thinking and problem solving
9.4.12.CT.3: Enlist input from a variety of stakeholders (e.g., community members, experts in the field) to design a service learning activity that addresses a local or global issue
9.4.12.DC.6: Select information to post online that positively impacts personal image and future college and career opportunities.
9.4.12.DC.7: Evaluate the influence of digital communities on the nature, content and responsibilities of careers, and other aspects of society
9.4.12.IML.3: Analyze data using tools and models to make valid and reliable claims, or to determine optimal design solutions
9.4.12.IML.4: Assess and critique the appropriateness and impact of existing data visualizations for an intended audience
9.4.12.TL.3: Analyze the effectiveness of the process and quality of collaborative environments.
8.1.12.CS.4: Develop guidelines that convey systematic troubleshooting strategies that others can use to identify and fix errors.
8.1.12.IC.1: Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices.

8.2.12.EC.3: Synthesize data, analyze trends, and draw conclusions regarding the effect of a technology on the individual, culture, society, and environment and share this information with the appropriate audience.

8.2.12.NT.1: Explain how different groups can contribute to the overall design of a product.

8.2.12.ITH.3: Analyze the impact that globalization, social media, and access to open source technologies has had on innovation and on a society's economy, politics, and culture.

Standards that Support Learning

Infused within the units are connections to the New Jersey Student Learning Standards for English Language Arts and Comprehensive Health and Physical Education

Reading Standards for Informational Text:
NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words
NJSLSA.R1. Read closely to determine what the text says explicitly and to make logical inferences and relevant connections from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
NJSLSA.R3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.
NJSLSA.R9. Analyze and reflect on how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take

Writing Standards:
NJSLSA.W1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
NJSLSA.W2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content
NJSLSA.W4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
NJSLSA.W6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.
NJSLSA.W9. Draw evidence from literary or informational texts to support analysis, reflection, and research.
NJSLSA.W10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

Comprehensive Health and Physical Education:
2.2.12.N.1: Compare and contrast the nutritional trends, eating habits, and the impact of marketing foods on adolescents and young adults nationally and worldwide.
2.2.12.N.2: Determine the relationship of nutrition and physical activity to weight loss, gain, and maintenance.
2.2.12.N.3: Analyze the unique contributions of each nutrient class (e.g., fats, carbohydrates, protein, water, vitamins, minerals) to one's health and fitness.
2.2.12.N.4: Implement strategies and monitor progress in achieving a personal nutritional health plan**.**
2.2.12.N.5: Research present trends in plant based and organic food choices and industries that have shown an impact on lowering heart, cancer, diabetes, and other diseases.

Instructional Plan

Concepts	Learning Targets
Digital tools differ in features, capacities, and styles. Knowledge of different digital tools is helpful in selecting the best tool for a given task. Collaborative digital tools can be used to access, record and share different viewpoints and to collect and tabulate the views of groups of people. Cultivating online reputations for employers and academia requires separating private and professional digital identities. Digital communities influence many aspects of society, especially the workforce. The increased connectivity between people in different cultures and different career fields have changed the nature, content, and responsibilities of many careers Digital tools such as artificial intelligence, image enhancement and analysis, and sophisticated computer modeling and simulation create new types of information that may have profound effects on society. These new types of information must be evaluated carefully. Collaborative digital tools can be used to access, record and share different viewpoints and to collect and tabulate the views of groups of people.	Students who understand concepts will be able to: ● Explain the potential benefits of collaborating to enhance critical thinking and problem solving ● Enlist input from a variety of stakeholders (e.g., community members, experts in the field) to design a service learning activity that addresses a local or global issue ● Select information to post online that positively impacts personal image and future college and career opportunities. ● Evaluate the influence of digital communities on the nature, content and responsibilities of careers, and other aspects of society ● Analyze data using tools and models to make valid and reliable claims, or to determine optimal design solutions ● Assess and critique the appropriateness and impact of existing data visualizations for an intended audience ● Analyze the effectiveness of the process and quality of collaborative environments. ● Develop guidelines that convey systematic troubleshooting strategies that others can use to identify and fix errors. ● Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices. ● Synthesize data, analyze trends, and draw conclusions regarding the effect of a technology on the individual, culture, society, and environment and share this information with the appropriate audience. ● Explain how different groups can contribute to the overall design of a product.

Successful troubleshooting of complex problems involves multiple approaches including research, analysis, reflection, interaction with peers, and drawing on past experiences. The design and use of computing technologies and artifacts can positively or negatively affect equitable access to information and opportunities. Consequences of technological use may be different for different groups of people and may change over time. Changes caused by the introduction and use of a new technology can range from gradual to rapid and from subtle to obvious, and can change over time. These changes may vary from society to society as a result of differences in a society's economy, politics, and culture.	● Analyze the impact that globalization, social media, and access to open source technologies on innovation and on a society's economy, politics, and culture.

Esports Unit 3
Unit Title: Positive Communication and Interaction

Standard: 9.4 Life Literacies and Key Skills: This standard outline key literacies and technical skills such as critical thinking, global and cultural awareness, and technology literacy* that are critical for students to develop to live and work in an interconnected global economy.

Standard: 8.1 Computer Science: People interact with a wide variety of computing devices that collect, store, analyze, and act upon information in ways that can affect human capabilities both positively and negatively. The physical components (hardware) and instructions (software) that make up a computing system communicate and process information in digital form.

Indicators

New Jersey Student Learning Standards for Career Readiness Life Literacy and Key Skills/Computer Science and Design Thinking:

9.4.12.CI.1: Demonstrate the ability to reflect, analyze, and use creative skills and ideas (e.g., 1.1.12prof.CR3a)

9.4.12.CI.2: Identify career pathways that highlight personal talents, skills, and abilities (e.g., 1.4.12prof.CR2b, 2.2.12.LF.8). **9.4.12.CI.3**: Investigate new challenges and opportunities for personal growth, advancement, and transition (e.g., 2.1.12.PGD.1).

9.4.12.CT.1: Identify problem-solving strategies used in the development of an innovative product or practice (e.g., 1.1.12acc.C1b, 2.2.12.PF.3).

9.4.12.CT.2: Explain the potential benefits of collaborating to enhance critical thinking and problem solving (e.g., 1.3E.12profCR3.a).

9.4.12.CT.4: Participate in online strategy and planning sessions for course-based, school-based, or other project and determine the strategies that contribute to effective outcomes.

9.4.12.DC.1: Explain the beneficial and harmful effects that intellectual property laws can have on the creation and sharing of content (e.g., 6.1.12.CivicsPR.16.a).

9.4.12.DC.4: Explain the privacy concerns related to the collection of data (e.g., cookies) and generation of data through automated processes that may not be evident to users (e.g., 8.1.12.NI.3)

9.4.12.DC.7: Evaluate the influence of digital communities on the nature, content and responsibilities of careers, and other aspects of society (e.g., 6.1.12.CivicsPD.16.a)

9.4.12.TL.1: Assess digital tools based on features such as accessibility options, capacities, and utility for accomplishing a specified task

9.4.12.TL.3: Analyze the effectiveness of the process and quality of collaborative environments.

8.1.12.CS.1: Describe ways in which integrated systems hide underlying implementation details to simplify user experiences.

8.1.12.CS.2: Model interactions between application software, system software, and hardware.

8.1.12.CS.3: Compare the functions of application software, system software, and hardware.

8.1.12.IC.1: Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices.

8.1.12.NI.1: Evaluate the scalability and reliability of networks, by describing the relationship between routers, switches, servers, topology, and addressing.

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NJSLSA.W10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

Instructional Plan

Concepts	Learning Targets
● The usability, dependability, security, and accessibility of devices within integrated systems are important considerations in their design as they evolve. ● A computing system involves interaction among the user, hardware, application software, and system software. ● The scalability and reliability of the Internet are enabled by the hierarchy and redundancy in networks. Network topology is determined by many characteristics. ● The design and use of computing technologies and artifacts can positively or negatively affect	Students who understand concepts will be able to: ● Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices. ● Predict the potential impacts and implications of emerging technologies on larger social, economic, and political structures, using evidence from credible sources. ● Evaluate the scalability and reliability of networks, by describing the relationship between routers, switches, servers, topology, and addressing ● Describe ways in which integrated systems hide underlying implementation details to simplify user experiences. ● Model interactions between application software, system software, and hardware. ● Compare the functions of application software, system software, and hardware. ● Demonstrate the ability to reflect, analyze, and use creative skills and ideas ● Identify career pathways that highlight personal talents, skills, and abilities ● Investigate new challenges and opportunities for personal

equitable access to information and opportunities.

- With a growth mindset, failure is an important part of success.

- Innovative ideas or innovation can lead to career opportunities.

- Collaboration with individuals with diverse experiences can aid in the problem-solving process, particularly for global issues where diverse solutions are needed.

- Laws govern the use of intellectual property and there are legal consequences to utilizing or sharing another's original works without permission or appropriate credit.

- Laws govern many aspects of computing, such as privacy, data, property, information, and identity. These laws can have beneficial and harmful effects, such as expediting or delaying advancements in computing and protecting or infringing upon people's rights.

- Digital communities influence many aspects of society, especially the workforce. The increased connectivity between people in different cultures

growth, advancement, and transition

- Identify problem-solving strategies used in the development of an innovative product or practice

- Explain the potential benefits of collaborating to enhance critical thinking and problem solving

- Participate in online strategy and planning sessions for course-based, school-based, or other project and determine the strategies that contribute to effective outcomes.

- Explain the beneficial and harmful effects that intellectual property laws can have on the creation and sharing of content

- Explain the privacy concerns related to the collection of data (e.g., cookies) and generation of data through automated processes that may not be evident to users

- Evaluate the influence of digital communities on the nature, content and responsibilities of careers, and other aspects of society

- Assess digital tools based on features such as accessibility options, capacities, and utility for accomplishing a specified task

- Analyze the effectiveness of the process and quality of collaborative environments.

and different career fields have changed the nature, content, and responsibilities of many careers ● Digital tools differ in features, capacities, and styles. Knowledge of different digital tools is helpful in selecting the best tool for a given task. ● Collaborative digital tools can be used to access, record and share different viewpoints and to collect and tabulate the views of groups of people.	

Esports Unit 4
Unit Title: Careers in Esports and Educational Opportunities

Standard: 8.1 Computer Science: People interact with a wide variety of computing devices that collect, store, analyze, and act upon information in ways that can affect human capabilities both positively and negatively. The physical components (hardware) and instructions (software) that make up a computing system communicate and process information in digital form.

Standard 9.2: Career Awareness, Exploration, Preparation, and Training: This standard outlines the importance of being knowledgeable about one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.

Standard: 9.4 Life Literacies and Key Skills: This standard outline key literacies and technical skills such as critical thinking, global and cultural awareness, and technology literacy* that are critical for students to develop to live and work in an interconnected global economy.

Indicators

New Jersey Student Learning Standards for Career Readiness Life Literacy and Key Skills/Computer Science and Design Thinking:

9.2.12.CAP.2: Develop college and career readiness skills by participating in opportunities such as structured learning experiences, apprenticeships, and dual enrollment programs.

9.2.12.CAP.3: Investigate how continuing education contributes to one's career and personal growth.

9.2.12.CAP.6: Identify transferable skills in career choices and design alternative career plans based on those skills.

9.2.12.CAP.7: Use online resources to examine licensing, certification, and credentialing requirements at the local, state, and national levels to maintain compliance with industry requirements in areas of career interest.

9.2.12.CAP.8: Determine job entrance criteria (e.g., education credentials, math/writing/reading comprehension tests, drug tests) used by employers in various industry sectors.

9.2.12.CAP.10: Identify strategies for reducing overall costs of postsecondary education (e.g., tuition assistance, loans, grants, scholarships, and student loans).

9.4.12.CI.1: Demonstrate the ability to reflect, analyze, and use creative skills and ideas (e.g., 1.1.12prof.CR3a)

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9.4.12.CT.1: Identify problem-solving strategies used in the development of an innovative product or practice (e.g., 1.1.12acc.C1b, 2.2.12.PF.3).

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8.1.12.IC.1: Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices.

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NJSLSA.W10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

Instructional Plan

Concepts	Learning Targets
● There are strategies to improve one's professional value and marketability. ● Career planning requires purposeful planning based on research, self-knowledge, and informed choices. \ ● The usability, dependability, security, and accessibility of	Students who understand concepts will be able to: ● Develop college and career readiness skills by participating in opportunities such as structured learning experiences, apprenticeships, and dual enrollment programs. ● Investigate how continuing education contributes to one's career and personal growth. ● Identify transferable skills in career choices and design alternative career plans based on those skills. ● Use online resources to examine licensing, certification,

- devices within integrated systems are important considerations in their design as they evolve.
- A computing system involves interaction among the user, hardware, application software, and system software.
- The scalability and reliability of the Internet are enabled by the hierarchy and redundancy in networks. Network topology is determined by many characteristics.
- The design and use of computing technologies and artifacts can positively or negatively affect equitable access to information and opportunities.
- With a growth mindset, failure is an important part of success.
- Innovative ideas or innovation can lead to career opportunities.
- Collaboration with individuals with diverse experiences can aid in the problem-solving process, particularly for global issues where diverse solutions are needed.
- Laws govern the use of intellectual property and there are legal consequences to utilizing or sharing another's original works without permission or appropriate credit.
- Laws govern many aspects of computing, such as privacy, data, property, information, and identity. These laws can have beneficial and harmful effects, such as expediting or delaying

- and credentialing requirements at the local, state, and national levels to maintain compliance with industry requirements in areas of career interest.
- Determine job entrance criteria (e.g., education credentials, math/writing/reading comprehension tests, drug tests) used by employers in various industry sectors.
- Identify strategies for reducing overall costs of postsecondary education (e.g., tuition assistance, loans, grants, scholarships, and student loans).
- Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices.
- Predict the potential impacts and implications of emerging technologies on larger social, economic, and political structures, using evidence from credible sources.
- Evaluate the scalability and reliability of networks, by describing the relationship between routers, switches, servers, topology, and addressing
- Describe ways in which integrated systems hide underlying implementation details to simplify user experiences.
- Model interactions between application software, system software, and hardware.
- Compare the functions of application software, system software, and hardware.
- Demonstrate the ability to reflect, analyze, and use creative skills and ideas
- Identify career pathways that highlight personal talents, skills, and abilities
- Investigate new challenges and opportunities for personal growth, advancement, and transition
- Identify problem-solving strategies used in the development of an innovative product or practice
- Explain the potential benefits of collaborating to enhance critical thinking and problem solving
- Participate in online strategy and planning sessions for course-based, school-based, or other project and

advancements in computing and protecting or infringing upon people's rights.	determine the strategies that contribute to effective outcomes.
● Digital communities influence many aspects of society, especially the workforce. The increased connectivity between people in different cultures and different career fields have changed the nature, content, and responsibilities of many careers	● Explain the beneficial and harmful effects that intellectual property laws can have on the creation and sharing of content
	● Explain the privacy concerns related to the collection of data (e.g., cookies) and generation of data through automated processes that may not be evident to users
● Digital tools differ in features, capacities, and styles. Knowledge of different digital tools is helpful in selecting the best tool for a given task.	● Evaluate the influence of digital communities on the nature, content and responsibilities of careers, and other aspects of society
	● Assess digital tools based on features such as accessibility options, capacities, and utility for accomplishing a specified task
● Collaborative digital tools can be used to access, record and share different viewpoints and to collect and tabulate the views of groups of people.	● Analyze the effectiveness of the process and quality of collaborative environments.

Esports Unit 5   **Unit Title: Technology Operation and Maintenance**
Standard: 8.1 Computer Science: People interact with a wide variety of computing devices that collect, store, analyze, and act upon information in ways that can affect human capabilities both positively and negatively. The physical components (hardware) and instructions (software) that make up a computing system communicate and process information in digital form.   **Standard: 8.2 Design Thinking:** This standard, previously standard 8.2 Technology Education of the 2014 NJSLS – Technology, outlines the technological design concepts and skills essential for technological and engineering literacy. The new framework design, detailed previously, includes Engineering Design, Ethics and Culture, and the Effects of Technology on the Natural world among the disciplinary concepts.   **Standard 9.2: Career Awareness, Exploration, Preparation, and Training:** This standard outlines the importance of being knowledgeable about one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.   **Standard: 9.4 Life Literacies and Key Skills:** This standard outline key literacies and technical skills such as critical thinking, global and cultural awareness, and technology literacy* that are critical for students to develop to live and work in an interconnected global economy.

Indicators

New Jersey Student Learning Standards for Career Readiness Life Literacy and Key Skills/Computer Science and Design Thinking:

8.1.12.CS.1: Describe ways in which integrated systems hide underlying implementation details to simplify user experiences.

8.1.12.CS.2: Model interactions between application software, system software, and hardware.

8.1.12.CS.3: Compare the functions of application software, system software, and hardware.

8.1.12.IC.1: Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices.

8.1.12.NI.1: Evaluate the scalability and reliability of networks, by describing the relationship between routers, switches, servers, topology, and addressing.

8.2.12.ED.1: Use research to design and create a product or system that addresses a problem and make modifications based on input from potential consumers.

8.2.12.ED.3: Evaluate several models of the same type of product and make recommendations for a new design based on a cost benefit analysis.

8.2.12.ED.5: Evaluate the effectiveness of a product or system based on factors that are related to its requirements, specifications, and constraints (e.g., safety, reliability, economic considerations, quality control, environmental concerns, manufacturability, maintenance and repair, ergonomics).

9.2.12.CAP.2: Develop college and career readiness skills by participating in opportunities such as structured learning experiences, apprenticeships, and dual enrollment programs.

9.2.12.CAP.3: Investigate how continuing education contributes to one's career and personal growth.

9.2.12.CAP.6: Identify transferable skills in career choices and design alternative career plans based on those skills.

9.2.12.CAP.7: Use online resources to examine licensing, certification, and credentialing requirements at the local, state, and national levels to maintain compliance with industry requirements in areas of career interest.

9.2.12.CAP.8: Determine job entrance criteria (e.g., education credentials, math/writing/reading comprehension tests, drug tests) used by employers in various industry sectors.

9.2.12.CAP.10: Identify strategies for reducing overall costs of postsecondary education (e.g., tuition assistance, loans, grants, scholarships, and student loans).

9.4.12.CI.1: Demonstrate the ability to reflect, analyze, and use creative skills and ideas (e.g., 1.1.12prof.CR3a)

9.4.12.CI.2: Identify career pathways that highlight personal talents, skills, and abilities (e.g., 1.4.12prof.CR2b, 2.2.12.LF.8). **9.4.12.CI.3**: Investigate new challenges and opportunities for personal growth, advancement, and transition (e.g., 2.1.12.PGD.1).

9.4.12.CT.1: Identify problem-solving strategies used in the development of an innovative product or practice (e.g., 1.1.12acc.C1b, 2.2.12.PF.3).

9.4.12.CT.2: Explain the potential benefits of collaborating to enhance critical thinking and problem solving (e.g., 1.3E.12profCR3.a).

9.4.12.CT.4: Participate in online strategy and planning sessions for course-based, school-based, or other project and determine the strategies that contribute to effective outcomes.

9.4.12.DC.1: Explain the beneficial and harmful effects that intellectual property laws can have on the creation and sharing of content (e.g., 6.1.12.CivicsPR.16.a).

9.4.12.DC.4: Explain the privacy concerns related to the collection of data (e.g., cookies) and generation of data through automated processes that may not be evident to users (e.g., 8.1.12.NI.3)

9.4.12.DC.7: Evaluate the influence of digital communities on the nature, content and responsibilities of careers, and other aspects of society (e.g., 6.1.12.CivicsPD.16.a)

9.4.12.TL.1: Assess digital tools based on features such as accessibility options, capacities, and utility for accomplishing a specified task

9.4.12.TL.3: Analyze the effectiveness of the process and quality of collaborative environments.

Standards that Support Learning

Infused within the units are connections to the New Jersey Student Learning Standards for English Language Arts.

Reading Standards for Informational Text:
NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words
NJSLSA.R1. Read closely to determine what the text says explicitly and to make logical inferences and relevant connections from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
NJSLSA.R3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.
NJSLSA.R9. Analyze and reflect on how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take

Writing Standards:
NJSLSA.W1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
NJSLSA.W2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content
NJSLSA.W4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
NJSLSA.W6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.
NJSLSA.W9. Draw evidence from literary or informational texts to support analysis, reflection, and research.
NJSLSA.W10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

Instructional Plan

Concepts	Learning Targets
● Engineering design is a complex process in which creativity, content knowledge, research, and analysis are used to address local	Students who understand concepts will be able to: ● Evaluate several models of the same type of product and make recommendations for a new design based on

- and global problems.
- Decisions on trade-offs involve systematic comparisons of all costs and benefits, and final steps that may involve redesigning for optimization.
- There are strategies to improve one's professional value and marketability.
- Engineering design evaluation, a process for determining how well a solution meets requirements, involves systematic comparisons between requirements, specifications, and constraints.
- Career planning requires purposeful planning based on research, self-knowledge, and informed choices.
- The usability, dependability, security, and accessibility of devices within integrated systems are important considerations in their design as they evolve.
- A computing system involves interaction among the user, hardware, application software, and system software.
- The scalability and reliability of the Internet are enabled by the hierarchy and redundancy in networks. Network topology is determined by many characteristics.
- The design and use of computing technologies and artifacts can positively or negatively affect equitable access to information and opportunities.
- With a growth mindset, failure is an important part of success.
- Innovative ideas or innovation can lead to career opportunities.
- Collaboration with individuals with diverse experiences can aid in the problem-solving process, particularly for global issues where diverse solutions are

- a cost benefit analysis.
- Design a product or system that addresses a global problem and document decisions made based on research, constraints, trade-offs, and aesthetic and ethical considerations and share this information with an appropriate audience
- Evaluate the effectiveness of a product or system based on factors that are related to its requirements, specifications, and constraints (e.g., safety, reliability, economic considerations, quality control, environmental concerns, manufacturability, maintenance and repair, ergonomics).
- Develop college and career readiness skills by participating in opportunities such as structured learning experiences, apprenticeships, and dual enrollment programs.
- Investigate how continuing education contributes to one's career and personal growth.
- Identify transferable skills in career choices and design alternative career plans based on those skills.
- Use online resources to examine licensing, certification, and credentialing requirements at the local, state, and national levels to maintain compliance with industry requirements in areas of career interest.
- Determine job entrance criteria (e.g., education credentials, math/writing/reading comprehension tests, drug tests) used by employers in various industry sectors.
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- Evaluate the scalability and reliability of networks, by describing the relationship between routers, switches, servers, topology, and addressing
- Describe ways in which integrated systems hide underlying implementation details to simplify user experiences.
- Model interactions between application software,

needed. ● Laws govern the use of intellectual property and there are legal consequences to utilizing or sharing another's original works without permission or appropriate credit. ● Laws govern many aspects of computing, such as privacy, data, property, information, and identity. These laws can have beneficial and harmful effects, such as expediting or delaying advancements in computing and protecting or infringing upon people's rights. ● Digital communities influence many aspects of society, especially the workforce. The increased connectivity between people in different cultures and different career fields have changed the nature, content, and responsibilities of many careers ● Digital tools differ in features, capacities, and styles. Knowledge of different digital tools is helpful in selecting the best tool for a given task. ● Collaborative digital tools can be used to access, record and share different viewpoints and to collect and tabulate the views of groups of people.	system software, and hardware. ● Compare the functions of application software, system software, and hardware. ● Demonstrate the ability to reflect, analyze, and use creative skills and ideas ● Identify career pathways that highlight personal talents, skills, and abilities ● Investigate new challenges and opportunities for personal growth, advancement, and transition ● Identify problem-solving strategies used in the development of an innovative product or practice ● Explain the potential benefits of collaborating to enhance critical thinking and problem solving ● Participate in online strategy and planning sessions for course-based, school-based, or other project and determine the strategies that contribute to effective outcomes. ● Explain the beneficial and harmful effects that intellectual property laws can have on the creation and sharing of content ● Explain the privacy concerns related to the collection of data (e.g., cookies) and generation of data through automated processes that may not be evident to users ● Evaluate the influence of digital communities on the nature, content and responsibilities of careers, and other aspects of society ● Assess digital tools based on features such as accessibility options, capacities, and utility for accomplishing a specified task ● Analyze the effectiveness of the process and quality of collaborative environments.

Modifications for Diverse Learners

● utilize visual support and graphic organizers ● use prompts and model directions ● provide opportunities to model talk during read aloud, and scaffold talk during whole class and small group discussions ● Modified assignments: chunked or reduced work, extended time ● Hands on tasks	● Preferential seating ● Flexible groups ● Peer tutoring ● Visual and supplemental videos ● Extended time ● Small group instruction ● Teach study skills ● Provide brain breaks

● Leveled reading
● Spanish translation of textbook

Enrichment
● Extension Activities   ● Opportunities for critical thinking   ● Technology integration   ● Student choice activities   ● Student driven activities   ● Group projects   ● Tiered activities   ● Opportunities for thematic, broad-based, and integrative content

Mandates

Curriculum Development: Integration of 21st Century Skills and Themes and Interdisciplinary Connections

District boards of education shall be responsible for the review and continuous improvement of curriculum and instruction based upon changes in knowledge, technology, assessment results, and modifications to the NJSLS, according to N.J.A.C. 6A:8-2.

1. District boards of education shall include interdisciplinary connections throughout the K–12 curriculum.

2. District boards of education shall integrate into the curriculum 21st century themes and skills (N.J.A.C. 6A:8-3.1(c).

Twenty-first century themes and skills integrated into all content standards areas (N.J.A.C. 6A:8-1.1(a)3). "Twenty-first century themes and skills" means themes such as global awareness; financial, economic, business, and entrepreneurial literacy; civic literacy; health literacy; learning and innovation skills, including creativity and innovation, critical thinking and problem solving, and communication and collaboration; information, media, and technology skills; and life and career skills, including flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, and leadership and responsibility.

Amistad Law: N.J.S.A. 18A 52:16A-88 Every board of education shall incorporate the information regarding the contributions of African-Americans to our country in an appropriate place in the curriculum of elementary and secondary school students.

Holocaust Law: N.J.S.A. 18A:35-28 Every board of education shall include instruction on the Holocaust and genocides in an appropriate place in the curriculum of all elementary and secondary school pupils. The instruction shall further emphasize the personal responsibility that each citizen bears to fight racism and hatred whenever and wherever it happens.

New Jersey Department of Education June 2020 19 LGBT and Disabilities Law: N.J.S.A. 18A:35-4.35 A board of education shall include instruction on the political, economic, and social contributions of persons with

disabilities and lesbian, gay, bisexual, and transgender people, in an appropriate place in the curriculum of middle school and high school students as part of the district's implementation of the New Jersey Student Learning Standards (N.J.S.A.18A:35-4.36) A board of education shall have policies and procedures in place pertaining to the selection of instructional materials to implement the requirements of N.J.S.A. 18A:35-4.35.

Core Instructional and Supplemental Materials

- Student Survey
- Instructional Videos
- Curriculum Map
- Student Log Book
- Primary sources
- Instructional Worksheets
- Junior Scholastic
- EdPuzzle
- Quizlet
- Quizziz
- Kahoot, Gimkit, Blooket

Evidence of Student Learning

Summative

Teacher created tests	
- Quizzes	- Times writing response
- Primary Document analysis	- Google Forms quizzes
- Written response / essays	- Webquests
- Research assessments	- Kahoot games
- Student Log Books	- Quizlet review
Formative	- Quizizz review
	- Google docs/slides/sites creation
- Projects	- Exit tickets
- Teacher observation	
- Class participation	Alternative
- Classwork	
- Homework	- Portfolios
- Journal response	