MOUNT HOLLY TOWNSHIP SCHOOL DISTRICT
3rd GRADE ACADEMIC CREATIVE EXPERIENCE (ACE) CURRICULUM

Board Approval: August 2022

District Administration

Mr. Robert Mungo	Superintendent
Mrs. Amie Dougherty	Director of Curriculum and Instruction
Mrs. Tifanie Pierce	Director of Special Services
Mrs. Carolyn McDonald	Director of Equity and Student Services
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National Association for Gifted Children PreK-12 Gifted Programming Standards

New Jersey Student Learning Standards for Science - 3rd Grade

New Jersey Student Learning Standards for ELA - 3rd Grade

New Jersey Student Learning Standards for Math - 3rd Grade

New Jersey Student Learning Standards for Social Studies - By the End of 5th Grade

New Jersey Student Learning Standards for Career Readiness, Life Literacies, and Key Skills - By the End of 5th Grade

New Jersey Student Learning Standards for Computer Science and Design Thinking - By the End of 5th Grade

Pacing Guide

Topic	Unit Length (based on 2-45 min classes/week schedule)
Introductory Unit	8 class sessions
Human Body Systems	14 class sessions
Electricity and Circuit Systems	14 class sessions
Environmental Systems	14 class sessions
Solar System	14 class sessions

Unit One: Introductory Unit Grade 3	
Unit Title	**Introductory Unit**
Recommended Pacing	**8 class sessions**
Unit Summary	**This unit will introduce students to concepts of giftedness (identifying personal strengths, setting learning goals); critical and creative thinking strategies (depth and complexity, four components of creativity, six thinking hats); and the grade level theme of Systems.**

Unit One: Introductory Unit	
NJ Student Learning Standards: **ELA:** **NJSLSA.R1** **NJSLSA.R3** **NJSLSA.R7** **NJSLSA.R8** **Sci:** **3-5-ETS1-1** **3-5-ETS1-2** **Math:** **MP.1** **MP.2**	**Length: 8 Class Sessions** **21st Century Student Outcomes** http://www.battelleforkids.org/networks/p21 **Learning and Innovation Skills** Think Creatively Work Creatively with Others Reason effectively Use Systems Thinking Make Judgments and Decisions Solve Problems Communicate Clearly Collaborate with Others

Career Readiness, Life Literacies, and Key Skills: **9.1.5.CR.1** **9.2.5.CAP.1** **9.4.5.CI.2** **9.4.5.CI.3** **9.4.5.CI.4** **9.4.5.CT.1** **9.4.5.CT.4** **9.4.5.GCA.1** **Computer Science and Design Thinking:** **8.2.5.ED.2** **8.2.5.ED.3** **8.2.5.NT.3** **NAGC Gifted Programming Standards:** **1.1 Self-Understanding** **- 1.1.1** **- 1.1.2** **1.6 Cognitive Growth and Career Development** **- 1.6.2** **3.2 Talent Development** **- 3.2.1** **- 3.2.2** **3.3 Responsiveness to Diversity** **- 3.3.1** **- 3.3.2**	**Life and Career Skills** Adapt to Change Be Flexible Manage Goals and Time Work Independently Be Self-directed Learners Interact Effectively with Others Work Effectively in Diverse Teams

3.4 Instructional Strategies **- 3.4.2** **- 3.4.3** **- 3.5.1** **- 3.5.2**	

Unit Focus and Targets:
Essential Questions: What is a system? How are they independent and interdependent? How do systems impact people and communities? Learning Goals: Students will be able to apply the six thinking hats framework and the first ½ of the depth and complexity categories to any topic. Students will be able to communicate their academic and social goals. Students will begin developing a definition of systems and provide multiple examples.
Lessons
Unit Assessments: **Daily Scribble Journal, Systems Pre/Post Assessment, Depth and Complexity Pre/Post-Assessment** using icons 1-6 for identification; Depth and Complexity Pre/Post-Assessment for application of sentence stems using icons 1-6

Unit Two: Human Body Systems **Grade 3**	
Unit Title	**Human Body Systems**
Recommended Pacing	**14 class sessions**

Unit Summary	**This unit will utilize NJSLS in science and ELA to analyze and investigate various human body systems. Students will learn about the functions of the systems; design models of the systems; and develop deeper understanding about interconnected systems.**

Unit Two: Human Body Systems	
NJ Student Learning Standards: **Sci:** **LS1.A** **LS1.B** **LS1.C** **LS1.D** **LS4.D** **ETS2.A** **ETS2.B** **ELA:** **NJSLSA.R1** **NJSLSA.R2** **NJSLSA.R7** **NJSLSA.W3** **Career Readiness, Life Literacies, and Key Skills:** **9.4.5.CI.3** **9.4.5.CT.1** **9.4.5.CT.3** **9.4.5.IML.2**	**Length: 14 Class Sessions** **21st Century Student Outcomes** http://www.battelleforkids.org/networks/p21 **Learning and Innovation Skills** Think Creatively Work Creatively with Others Reason effectively Use Systems Thinking Make Judgments and Decisions Solve Problems Communicate Clearly Collaborate with Others **Life and Career Skills** Manage Goals and Time Work Independently Be Self-directed Learners Interact Effectively with Others Work Effectively in Diverse Teams

9.4.5.TL.5 **Computer Science and Design Thinking:** **8.1.5.DA.1** **8.2.5.ED.1** **8.2.5.ED.4** **8.2.5.ITH.4** **8.2.5.NT.4** **8.2.5.ETW.3** **NAGC Gifted Programming Standards:** **1.1-3 Self-Understanding** **- 1.1.3** **- 1.2.3** **- 1.3.1** **- 1.3.3** **1.5 Cognitive, Psychosocial, and Affective Growth** **- 1.5.1** **- 1.5.2** **1.6 Cognitive Growth and Career Development** **- 1.6.1** **- 1.6.2** **3.2 Talent Development** **- 3.2.2** **3.3 Responsiveness to Diversity** **- 3.3.2** **3.4 Instructional Strategies**	

- 3.4.2 **- 3.4.3**	

Unit Focus and Targets:
Essential Questions: How do the systems of the body maintain life, both independently and together? How do the body systems detect, process, and use information? Learning Goals: Students will be able to create and use a model to describe how the body is a system of interacting subsystems. Students will be able to explain how information is taken in and used by different systems of the body.
Lessons
Muscular, skeletal, sensory, nervous, respiratory, digestive, cardiovascular Utilize video clips, diagrams, and reading articles/passages to develop background knowledge → apply newly constructed knowledge about systems to create dependent and interdependent models of the body systems
Unit Assessments: **Inside the Body Osmosis Jones Writing Task** **ACE Class Tasks Rubric**

Unit Three: Electricity and Circuit Systems Grade 3	
Unit Title	**Electricity and Circuit Systems**
Recommended Pacing	**14 class sessions**

Unit Summary	**This unit will utilize NJSLS in science and ELA to analyze and investigate electricity and circuits using a variety of conductors. Students will visually and verbally communicate ideas about electricity and circuits, as well as creating systems based on trial and error.**

Unit Three: Electricity and Circuit Systems	
NJ Student Learning Standards: **Sci:** **PS3.A** **PS3.B** **ETS1.A** **ETS1.B** **ETS1.C** **ETS2.A** **ETS2.B** **ELA:** **NJSLSA.W2** **NJSlSA.SL5** **Career Readiness, Life Literacies, and Key Skills:** **9.4.5.CI.3** **9.4.5.CT.4** **Computer Science and Design Thinking:** **8.1.5.CS.3** **8.1.5.NI.1**	**Length: 14 Class Sessions** **21st Century Student Outcomes** http://www.battelleforkids.org/networks/p21 **Learning and Innovation Skills** Think Creatively Work Creatively with Others Implement Innovations Reason effectively Use Systems Thinking Make Judgments and Decisions Solve Problems Communicate Clearly Collaborate with Others **Life and Career Skills** Adapt to Change Be Flexible Manage Goals and Time Work Independently

8.1.5.AP.5 **8.1.5.AP.6** **8.2.5.ED.1** **8.2.5.ED.3** **8.2.5.ED.5** **8.2.5.NT.1** **NAGC Gifted Programming Standards:** **1.1-3 Self-Understanding** **- 1.1.3** **- 1.2.3** **- 1.3.1** **- 1.3.3** **1.5 Cognitive, Psychosocial, and Affective Growth** **- 1.5.1** **- 1.5.2** **1.6 Cognitive Growth and Career Development** **- 1.6.1** **- 1.6.2** **3.2 Talent Development** **- 3.2.2** **3.3 Responsiveness to Diversity** **- 3.3.2** **3.4 Instructional Strategies** **- 3.4.2** **- 3.4.3**	Be Self-directed Learners Interact Effectively with Others Work Effectively in Diverse Teams

Unit Focus and Targets:
Essential Questions: What is the process for developing design solutions? How do systems solve problems? How are engineering, technology, science, and society interconnected? Learning Goals: Students will be able to build a circuit using a variety of materials and explain how the system is working. Students will be able to use models to communicate knowledge about circuit systems.
Lessons
Vocabulary: conductor, insulator, leads, positive/negative poles, battery Use self-discovery to build background knowledge with christmas light and 9v battery + button battery Use diagrams and models to develop more intricate systems Use squishy circuits and snap circuits to build systems with different functions and purposes
Unit Assessments: **Created Circuit with Written and Verbal Description** **ACE Class Tasks Rubric**

Unit Four: Environmental Systems Grade 3	
Unit Title	**Environmental Systems**
Recommended Pacing	**14 class sessions**

Unit Summary	**This unit will utilize NJSLS in science and social studies to analyze and investigate environmental systems, such as ecosystems and weather systems. Students will develop an understanding of how environmental systems both impact and are impacted by humans.**

Unit Four: Environmental Systems	
NJ Student Learning Standards: **Sci:** **LS2.A** **LS2.C** **ESS2.A** **ESS2.B** **ESS2.C** **ESS2.D** **ESS2.E** **ESS3.C** **ETS1.A** **ETS1.B** **ETS1.C** **ETS2.A** **ETS2.B** **SS:** **6.1.5.GeoPP.6** **6.1.5.GeoHE.2** **6.1.5.GeoHE.3** **6.1.5.GeoGI.4**	**Length: 14 Class Sessions** **21st Century Student Outcomes** http://www.battelleforkids.org/networks/p21 **Learning and Innovation Skills** Think Creatively Work Creatively with Others Implement Innovations Reason effectively Use Systems Thinking Make Judgments and Decisions Solve Problems Communicate Clearly Collaborate with Others **Life and Career Skills** Adapt to Change Be Flexible Manage Goals and Time Work Independently

Career Readiness, Life Literacies, and Key Skills: **9.4.5.CI.2** **9.4.5.CI.3** **Computer Science and Design Thinking:** **8.1.5.DA.5** **8.2.5.ED.1** **8.2.5.ETW.3** **8.2.5.ETW.4** **8.2.5.ETW.5** **8.2.5.EC.1** **NAGC Gifted Programming Standards:** **1.1-3 Self-Understanding** **- 1.1.3** **- 1.2.3** **- 1.3.1** **- 1.3.3** **1.5 Cognitive, Psychosocial, and Affective Growth** **- 1.5.1** **- 1.5.2** **1.6 Cognitive Growth and Career Development** **- 1.6.1** **- 1.6.2** **3.2 Talent Development** **- 3.2.2** **3.3 Responsiveness to Diversity**	Be Self-directed Learners Interact Effectively with Others Work Effectively in Diverse Teams

- 3.3.2 **3.4 Instructional Strategies** **- 3.4.2** **- 3.4.3**	

Unit Focus and Targets:

Essential Questions: How do environmental systems impact where and how people live? How do people positively and negatively change environmental systems? How do Earth's major systems interact?

Learning Goals: Students will be able to analyze, interpret, and represent data about changing environmental systems. Students will be able to describe a variety of environmental systems and their interactions.

Lessons

Ecosystems, food chains, water cycle, weather systems
Geosphere (land), atmosphere (air), hydrosphere (water), biosphere (living things)

Unit Assessments:
Data Representation task
ACE Class Tasks Rubric

Unit Five: Solar System **Grade 3**	
Unit Title	**Solar System**

Recommended Pacing	**14 class sessions**
Unit Summary	**This unit will utilize NJSLS in science and math to analyze and investigate the solar system. Students will develop an understanding of the layers of systems that create the larger solar system. Students will create models to communicate information about the various systems within the solar system.**

Unit Five: Solar System	
NJ Student Learning Standards: **Sci:** **ESS1.A** **ESS1.B** **ESS1.C** **ETS2.A** **ETS2.B** **Math:** **3.OA.A** **3.OA.C** **3.MD.B** **MP2** **MP4** **Career Readiness, Life Literacies, and Key Skills:** **9.4.5.CI.3** **9.4.5.CT.3** **9.4.5.IML.2** **9.4.5.TL.5**	**Length: 14 Class Sessions** **21st Century Student Outcomes** http://www.battelleforkids.org/networks/p21 **Learning and Innovation Skills** Think Creatively Work Creatively with Others Reason effectively Use Systems Thinking Make Judgments and Decisions Solve Problems Communicate Clearly Collaborate with Others **Life and Career Skills** Adapt to Change Be Flexible Manage Goals and Time Work Independently

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Unit Focus and Targets:	

Essential Questions: What is the universe and what is Earth's place in the system? What are the predictable patterns in the solar system? How do people use the solar system to determine history?

Learning Goals: Students will be able to develop and use a model to describe the cyclic system of lunar phases, eclipses of the sun and moon, and seasons. Students will be able to analyze and interpret data to determine the scale of objects in the solar system.

Lessons

Day and Night, Shadow Patterns and Position, Seasonal Patterns and Orbits, Lunar Cycles and Phases, Planets and Stars
NASA Solar System Math - fractions/decimals, geometry, scientific notation

Unit Assessments:

Created models, solar system scale data

ACE Class Tasks Rubric