

**GIFTED
AND
TALENTED
PROGRAM**

GRADES K-12

This curriculum is part of the Educational Program of Studies of the Rahway Public Schools.

ACKNOWLEDGMENTS

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The Board acknowledges the following who contributed to the preparation of this curriculum.

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Subject/Course Title:
Gifted & Talented Program
Grades K-12
Grades 6-8

Grades K-12
Grades K-12

Date of Board Adoptions:
October 12, 2004

February 22, 2005 – Revised
June 28, 2005 – Revised
September 19, 2001 – Revised
June 28, 2011 – Revised
September 21, 2015 - Revised
November 24, 2020 - Revised

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RAHWAY PUBLIC SCHOOLS CURRICULUM

Gifted and Talented – Grades 3 - 6

Pacing Guide

Grade/Unit	Title	Pacing
	Grade 3 – 6 Overall Unit Overview	40 weeks
3 - Unit 1	All about Me	10 weeks
3 - Unit 2	Introduction to Structures: Bridges	10 weeks
3 - Unit 3	Solar Energy	10 weeks
3 - Unit 4	Battle of the Books	10 weeks
4 - Unit 1	The Physics of Toys	10 weeks
4 - Unit 2	Battle of the Books	10 weeks
4 - Unit 3	American Symbols and Landmarks	10 weeks
4 - Unit 4	Coding	10 weeks
5 - Unit 1	“Return to the Moon”	10 weeks
5 - Unit 2	Robotics through LEGO Mindstorms	10 weeks
5 - Unit 3	Junior Achievement BizTown	10 weeks
5 - Unit 4	The Environment	10 weeks
6 - Unit 1	Robotics with Ozobots	10 weeks
6 - Unit 2	Junior Achievement BizTown	20 weeks
6 - Unit 3	Forensics	10 weeks

ACCOMMODATIONS

504 Accommodations:

- Provide scaffolded vocabulary and vocabulary lists.
- Provide extra visual and verbal cues and prompts.
- Provide adapted/alternate/excerpted versions of the text and/or modified supplementary materials.
- Provide links to audio files and utilize video clips.
- Provide graphic organizers and/or checklists.
- Provide modified rubrics.
- Provide a copy of teaching notes, especially any key terms, in advance.
- Allow additional time to complete assignments and/or assessments.
- Provide shorter writing assignments.
- Provide sentence starters.
- Utilize small group instruction.
- Utilize Think-Pair-Share structure.
- Check for understanding frequently.
- Have student restate information.
- Support auditory presentations with visuals.
- Weekly home-school communication tools (notebook, daily log, phone calls or email messages).
- Provide study sheets and teacher outlines prior to assessments.
- Quiet corner or room to calm down and relax when anxious.
- Reduction of distractions.
- Permit answers to be dictated.
- Hands-on activities.
- Use of manipulatives.
- Assign preferential seating.
- No penalty for spelling errors or sloppy handwriting.
- Follow a routine/schedule.
- Provide student with rest breaks.
- Use verbal and visual cues regarding directions and staying on task.
- Assist in maintaining agenda book.

IEP Accommodations:

- Provide scaffolded vocabulary and vocabulary lists.
- Differentiate reading levels of texts (e.g., Newsela).
- Provide adapted/alternate/excerpted versions of the text and/or modified supplementary materials.
- Provide extra visual and verbal cues and prompts.
- Provide links to audio files and utilize video clips.
- Provide graphic organizers and/or checklists.
- Provide modified rubrics.
- Provide a copy of teaching notes, especially any key terms, in advance.
- Provide students with additional information to supplement notes.
- Modify questioning techniques and provide a reduced number of questions or items on tests.
- Allow additional time to complete assignments and/or assessments.
- Provide shorter writing assignments.
- Provide sentence starters.
- Utilize small group instruction.
- Utilize Think-Pair-Share structure.
- Check for understanding frequently.
- Have student restate information.
- Support auditory presentations with visuals.
- Provide study sheets and teacher outlines prior to assessments.
- Use of manipulatives.
- Have students work with partners or in groups for reading, presentations, assignments, and analyses.
- Assign appropriate roles in collaborative work.
- Assign preferential seating.
- Follow a routine/schedule.

Gifted and Talented Accommodations:

- Differentiate reading levels of texts (e.g., Newsela).
- Offer students additional texts with higher lexile levels.
- Provide more challenging and/or more supplemental readings and/or activities to deepen understanding.
- Allow for independent reading, research, and projects.
- Accelerate or compact the curriculum.
- Offer higher-level thinking questions for deeper analysis.
- Offer more rigorous materials/tasks/prompts.
- Increase number and complexity of sources.
- Assign group research and presentations to teach the class.
- Assign/allow for leadership roles during collaborative work and in other learning activities.

ELL Accommodations:

- Provide extended time.
- Assign preferential seating.
- Assign peer buddy who the student can work with.
- Check for understanding frequently.
- Provide language feedback often (such as grammar errors, tenses, subject-verb agreements, etc...).
- Have student repeat directions.
- Make vocabulary words available during classwork and exams.
- Use study guides/checklists to organize information.
- Repeat directions.
- Increase one-on-one conferencing.
- Allow student to listen to an audio version of the text.
- Give directions in small, distinct steps.
- Allow copying from paper/book.
- Give student a copy of the class notes.
- Provide written and oral instructions.
- Differentiate reading levels of texts (e.g., Newsela).
- Shorten assignments.
- Read directions aloud to student.
- Give oral clues or prompts.
- Record or type assignments.
- Adapt worksheets/packets.
- Create alternate assignments.

- Have student enter written assignments in criterion, where they can use the planning maps to help get them started and receive feedback after it is submitted.
- Allow student to resubmit assignments.
- Use small group instruction.
- Simplify language.
- Provide scaffolded vocabulary and vocabulary lists.
- Demonstrate concepts possibly through the use of visuals.
- Use manipulatives.
- Emphasize critical information by highlighting it for the student.
- Use graphic organizers.
- Pre-teach or pre-view vocabulary.
- Provide student with a list of prompts or sentence starters that they can use when completing a written assignment.
- Provide audio versions of the textbooks.
- Highlight textbooks/study guides.
- Use supplementary materials.
- Give assistance in note taking
- Use adapted/modified textbooks.
- Allow use of computer/word processor.
- Allow student to answer orally, give extended time (time-and-a-half).
- Allow tests to be given in a separate location (with the ESL teacher).
- Allow additional time to complete assignments and/or assessments.
- Read question to student to clarify.
- Provide a definition or synonym for words on a test that do not impact the validity of the exam.
- Modify the format of assessments.
- Shorten test length or require only selected test items.
- Create alternative assessments.
- On an exam other than a spelling test, don't take points off for spelling errors.

RAHWAY PUBLIC SCHOOLS GIFTED & TALENTED 3-6 CURRICULUM

GRADES 3-6 OVERALL UNIT OVERVIEW

Content Area: Gifted & Talented

Unit Title: General Enrichment Activities and Enhanced Exploration of Specific Topics

Target Course/Grade Level: 3-6

Unit Summary: There are many ways to “train your brain”. Throughout the G&T program year, activities are used to encourage students to think outside the box, logically, spatially, emotionally, and mathematically. Also, when appropriate, special exhibits at local museums are introduced for students to delve deeper into all aspects of the exhibit in which the experience of the exhibit is the culmination of the unit of study. It provides an enhanced educational experience to classroom topics.

Approximate Length of Unit: 40 weeks

LEARNING TARGETS

NJ Student Learning Standards:

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.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

NJSLSA.R10. Read and comprehend complex literary and informational texts independently and proficiently with scaffolding as needed.

Career Readiness, Life Literacies, and Key Skills:

9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one’s thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).

9.4.5.CI.4: Research the development process of a product and identify the role of failure as a part of the creative process (e.g., W.4.7, 8.2.5.ED.6).

9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).

9.4.5.CT.2: Identify a problem and list the types of individuals and resources (e.g., school, community agencies, governmental, online) that can aid in solving the problem (e.g., 2.1.5.CHSS.1, 4-ESS3-1).

9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.

9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global (e.g., 6.1.5.CivicsCM.3).

9.4.5.IML.1: Evaluate digital sources for accuracy, perspective, credibility and relevance (e.g., Social Studies Practice - Gathering and Evaluating Sources).

9.4.5.TL.5: Collaborate digitally to produce an artifact (e.g., 1.2.5CR1d).

New Jersey Student Learning Standards for English Language Arts Companion Standards:

Science and Technical Subjects:

RST.6-8.1. Cite specific textual evidence to support analysis of science and technical texts.

RST.6-8.2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

RST.6-8.6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.

RST.6-8.9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Unit Understandings:

Students will understand that...

- Puzzles and games can hone logic skills.
- Logic activities should have mental and physical components.
- Cooperation in solving a problem brings different perspectives together.

Unit Essential Questions:

How many strategies can I use to solve a problem?

Knowledge and Skills:

Students will know.....

- How to properly communicate with others.
- How to solve progressively difficult problems through the use of logic.

Students will be able to ...

- Solve a multitude of problems using different strategies.

EVIDENCE OF LEARNING

- Solve problems by cooperating and communicating effectively with others.

Assessment:

What evidence will be collected and deemed acceptable to show that students truly “understand”?

- Teacher observation
- Oral response
- Presentation of solutions to problems
- End of unit assessment

Learning Activities:

What differentiated learning experiences and instruction will enable all students to achieve the desired results?

- Flexible pairing or grouping of students
- Allowing additional time
- Preferential seating

RESOURCES

Teacher Resources:

- <https://www.teachercertificationdegrees.com/resources/make-learning-fun/>
- <https://www.educationalappstore.com/app/logic-puzzles-for-education>
- https://play.google.com/store/apps/details?id=air.com.CreativeTech.LogicPuzzles&hl=en_US

Equipment Needed:

- Tangrams
- Logic problems
- Puzzles
- Escape boxes
- Sudoku
- Rubik's Cube
- Checkers/Chess/Stratego
- Cracker Barrel Peg Board Game
- Logic Story Books
- Math Logic problems

GRADE 3 UNIT 1 OVERVIEW

Content Area: Gifted & Talented

Unit Title: All About Me

Target Course/Grade Level: Third Grade

Unit Summary: In this unit, students will build self-esteem, learn about their peers, develop friendships, develop oral communication skills, and build a sense of community with their gifted and talented group.

Approximate Length of Unit: 10 weeks

LEARNING TARGETS

NJ Student Learning Standards:

NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

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.W3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

NJSLSA.W4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

NJSLSA.W5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

NJSLSA.W6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

NJSLSA.W7. Conduct short as well as more sustained research projects, utilizing an inquiry-based research process, based on focused questions, demonstrating understanding of the subject under investigation.

NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

NJSLSA.SL2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

NJSLSA.SL3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

Career Readiness, Life Literacies, and Key Skills:

9.4.5.IML.1: Evaluate digital sources for accuracy, perspective, credibility and relevance

9.4.5.IML.2: Create a visual representation to organize information

9.4.5.TL.3: Format a document using a word processing application to enhance text, change page formatting, and include appropriate images, graphics, or symbols.

ISTE:

1c Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways..

6a Students choose the appropriate platforms and tools for meeting the desired objectives of their

creation or communication.

6d Students publish or present content that customizes the message and medium for their intended audiences.

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RST.6-8.6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.

RST.6-8.9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Unit Understandings:

Students will understand that...

- I am unique; there is no one who looks, feels, thinks and acts exactly like I do.
- I am part of a family and a classroom community.
- My classroom is a community. All of the people in my class are important and unique.
- I can help make my classroom a fun, safe and exciting place.

Unit Essential Questions:

- Who am I and who are the people in my life?
- What makes me important and unique?

Knowledge and Skills:

Students will know...

- By recognizing characteristics that make them unique, students develop a sense of self-worth.
- Discovering their strengths, goals, likes, and personal interests is a fun way for students to tell you about themselves.
- Recognizing others in the class that have similar interests becomes a starting point for fostering relationships.

Students will be able to ...

- Recall and relate personal information about themselves.
- Answer specific questions about themselves.
- Interview family members to gather information.
- Share adjectives to describe themselves.
- Complete a paragraph providing a topic sentence, details, and a conclusion.
- Create a document in newsletter format, following the format on a template.
- Complete a presentation.

EVIDENCE OF LEARNING

Assessment:

What evidence will be collected and deemed acceptable to show that students truly “understand”?

- Completed newspaper template.
- Completed PowerPoint or Google Slide presentation.
- Speaking skills
- Listening skills
- End of unit assessment

Learning Activities:

What differentiated learning experiences and instruction will enable all students to achieve the desired results?

- Flexible pairing or grouping of students
- Allowing additional time
- Preferential seating

RESOURCES

Teacher Resources:

- Newspaper Template Poster Instructions

Equipment Needed:

- Newspaper Template Poster
- Chromebooks
- Presentation application

GRADE 3 UNIT 2 OVERVIEW

Content Area: Gifted & Talented

Unit Title: Introduction to Structures: Bridges

Target Course/Grade Level: Third Grade

Unit Summary: Students will be introduced to the history, function, structural design, geometry and strength of bridges. They will discover that bridge construction, although based on simple scientific concepts, often requires complex engineering solutions. They will have the opportunity to acquire skills using a hands-on, inquiry-based approach to information and concepts. Working cooperatively, they are encouraged to interact with each other as they build, investigate, problem solve, discuss, and evaluate scientific and design principles in action.

Approximate Length of Unit: 10 weeks

LEARNING TARGETS

NJ Student Learning Standards:

RI.5.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.

RI.5.7 Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

RI.5.9 Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.

W.5.7 Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.

W.5.8 Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work and provide a list of sources.

W.5.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

MP.2 Reason abstractly and quantitatively. (3-5-ETS1-1), (3-5-ETS1-2), (3-5-ETS1-3)

MP.4 Model with mathematics. (3-5-ETS1-1), (3-5-ETS1-2), (3-5-ETS1-3)

MP.5 Use appropriate tools strategically. (3-5-ETS1-1), (3-5-ETS1-2), (3-5-ETS1-3)

3-5.OA Operations and Algebraic Thinking (3-5-ETS1-1), (3-5-ETS1-2)

Science NJSLS:

3-5-ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3-5-ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

3-5-ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

Career Readiness, Life Literacies, and Key Skills:

9.4.5.CI.1: Use appropriate communication technologies to collaborate with individuals with diverse perspectives about a local and/or global climate change issue and deliberate about possible solutions.

9.4.5.CI.2: Investigate a persistent local or global issue, such as climate change, and collaborate with individuals with diverse perspectives to improve upon current actions designed to address the issue.

9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process.

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Science and Technical Subjects:**

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RST.6-8.2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

RST.6-8.6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.

RST.6-8.9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Unit Understandings:

Students will understand that...

- There are several forces involved in structures.
- The physical properties of materials and their application are intricate in the design and construction of bridges.

Unit Essential Questions:

- What do bridges do?
- Are all bridges the same?
- What materials do bridges need?

Knowledge and Skills:

Students will know.....

- The definition of a bridge.
- The different types of bridges.
- The features of a bridge.

Students will be able to ...

- Investigate different bridge designs and demonstrate their understanding of how they work.
- Describe and understand the forces that act on structures.
- Describe how structures are made stable and how they are able to support loads.
- Demonstrate and describe how structures can fail when loaded and investigate techniques for reinforcing and strengthening them.
- Consider, describe, and explain some of the physical properties of materials and their application in the design and construction of bridges.
- Demonstrate their understanding of the design, engineering, and construction processes used in bridge building.

EVIDENCE OF LEARNING

Assessment:

What evidence will be collected and deemed acceptable to show that students truly “understand”?

- Student journals
- Student building activities
- Student discussion
- End of unit assessment

Learning Activities:

What differentiated learning experiences and instruction will enable all students to achieve the desired results?

- Flexible pairing or grouping of students
- Allowing additional time
- Preferential seating

RESOURCES

Teacher Resources:

- K’Nex Education Teacher’s Guide - [Bridges: Introduction to Structures](#)

Equipment Needed:

- K’Nex Education’s Bridges: Introduction to Structures Kit
- Student Journals
- Chromebooks

GRADE 3 UNIT 3 OVERVIEW

Content Area: Gifted & Talented

Unit Title: Solar Energy

Target Course/Grade Level: Third Grade

Unit Summary: In this unit students will learn about the different ways in which the Sun's energy can be harnessed and used to provide power for an array of purposes on Earth. Through experimental construction, the children will also design and build different projects that will demonstrate how to use the Sun's energy to create movement, force, and heat.

Approximate Length of Unit: 10 weeks

LEARNING TARGETS

NJ Student Learning Standards:

Science:

3-5-ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3-5-ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

3-5-ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

Mathematics

MP.5 Use appropriate tools strategically. (3-PS2-1)

English Language Arts:

RI.3.1 Ask and answer questions, and make relevant connections to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. (3-PS2-1), (3-PS2-3)

RI.3.2 Determine the main idea of a text; recount the key details and explain how they support the main idea. (3-LS3-1), (3-LS3-2)

W.3.7 Conduct short research projects that build knowledge about a topic. (3-PS2-1), (3-PS2-2)

W.3.8 Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories. (3-PS2-1), (3-PS2-2)

SL.3.3 Ask and answer questions about information from a speaker, offering appropriate elaboration and detail. (3-PS2-3)

Career Readiness, Life Literacies, and Key Skills:

Civic Responsibility

Standard 9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community.

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.

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Science and Technical Subjects:**

RST.6-8.1. Cite specific textual evidence to support analysis of science and technical texts.

RST.6-8.2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

RST.6-8.6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.

RST.6-8.9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Unit Understandings:

Students will understand that...

- The sun provides the earth with energy that can be harnessed by different methods to power an array of things.

Unit Essential Questions:

How does using solar energy to power things on Earth help to conserve the Earth's nonrenewable sources?

How can we harness solar energy to power things?

Knowledge and Skills:

Students will know that.....

- Solar energy is a renewable energy resource.
- The Sun provides energy that can be harnessed and used to power things on Earth.

Students will be able to ...

- Design and construct a structure that can be powered by using the Sun's energy.
- Produce a research project that identifies and explains the ways in which solar energy is harnessed and used in multiple ways on Earth.

EVIDENCE OF LEARNING

Assessment:

What evidence will be collected and deemed acceptable to show that students truly "understand"?

- Teacher observation
- Questions asked to the class
- Students can model the correct way to handle a situation
- Student oral feedback
- Class discussion
- Complete group project
- End of unit assessment

Learning Activities:

What differentiated learning experiences and instruction will enable all students to achieve the desired results?

- Flexible pairing or grouping of students
- Allowing additional time
- Preferential seating
- Provide multiple opportunities and methods for students to demonstrate what they have learned through the unit

RESOURCES

Teacher Resources:

Suggested Books:

Solar Energy: Super Cool Science Experiments, by Christine Taylor-Butler

The Kids' Solar Energy Book: Even grown-ups can understand, by Tilly Spaetgang and Malcolm Wells

Solar Energy, by Julie Richards

Solar Energy, by Christine Taylor Bulter

Done in the Sun :Solar Projects for Children, by Anne Hillerman

Renewable Energy (Follett Electronic Ebook), by Trevor Smith

Suggested Websites:

<https://school.eb.com/levels/middle/search/articles?query=solar+energy>

<https://www.commonsense.org/education/lesson-plans/solar-energy>

<https://www.nrel.gov/docs/gen/fy01/30928.pdf>

<https://www.teacherspayteachers.com/Product/STEM-Challenge-Solar-Oven-Project-1754753>

<https://www.energy.gov/articles/solar-classroom-lesson-plan>

<https://study.com/academy/lesson/solar-energy-lesson-plan-for-elementary-school.html>

Possible Equipment Needed:

- Computers
- Document Camera
- K'NEX Education - Renewable Solar Energy Building Kits
- Solar Robot Science Kit (STEM 12 IN 1)

GRADE 3 UNIT 4 OVERVIEW

Content Area: Gifted & Talented

Unit Title: Battle of the Books

Target Course/Grade Level: Third Grade

Unit Summary: Battle of the Books is a reading motivation program. The goals of the program are to encourage reading for pleasure, broaden reading interests, and recognize students who enjoy reading. Titles of the official Reading Lists are chosen annually, according to Criteria for Book Selection. Student teams of four to five read the books over a period of months, discuss them, quiz each other on the contents, and then compete in these teams to correctly answer questions based on the books. The questions used all begin with, "In what book..." so answers will always be a title and an author. The state-wide program involves a cooperative effort by many individuals and local groups. It is popular with students and has provided new opportunities for academic competition. BATTLE OF THE BOOKS has also proven to be effective in its specified purpose: to stimulate an interest in reading.

Approximate Length of Unit: 10 weeks

LEARNING TARGETS

NJ Student Learning Standards:

RL.3.1. Ask and answer questions, and make relevant connections to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

RL.3.2. Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message/theme, lesson, or moral and explain how it is revealed through key details in the text.

RL.3.3. Describe the characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the plot.

SL.3.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 3 topics and texts*, building on others' ideas and expressing their own clearly. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion.

Follow agreed-upon norms 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).

Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others. Explain their own ideas and understanding in light of the discussion.

SL.4.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts*, building on others' ideas and expressing their own clearly.

1. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion.
2. Follow agreed-upon rules for discussions and carry out assigned roles.

3. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.
4. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.

Career Readiness, Life Literacies, and Key Skills:

- 9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).
- 9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).
- 9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.

AASL:

III. COLLABORATE - Work effectively with others to broaden perspectives and work toward common goals.

A. THINK - Learners identify collaborative opportunities by:

1. Demonstrating their desire to broaden and deepen understandings.
2. Developing new understandings through engagement in a learning group.
3. Deciding to solve problems informed by group interaction.

New Jersey Student Learning Standards for English Language Arts Companion Standards: Science and Technical Subjects:

- RST.6-8.1. Cite specific textual evidence to support analysis of science and technical texts.
- RST.6-8.2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.
- RST.6-8.6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.
- RST.6-8.9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Unit Understandings:

Students will understand that...

Collaboration is necessary in order to compete in the Battle of the Books.

It is important to discuss the characters, plot, and problem of each of the assigned books.

Unit Essential Questions:

What are the important ideas presented in the books?

Who are the characters?

What are the different settings?

Knowledge and Skills:

Students will know.....

The specific details of the books to which they have been assigned.

The strategy they can follow in order to best compete in the Battle of the Books.

Students will be able to ...

Collaborate in order to compete in Battle of the Books.

EVIDENCE OF LEARNING

Assessment:

What evidence will be collected and deemed acceptable to show that students truly “understand”?

- “Memory Jogger” graphic organizer will be completed for each book read.
- Teacher observation of collaboration
- Team competition in Battle of the Books
- End of unit assessment

Learning Activities:

What differentiated learning experiences and instruction will enable all students to achieve the desired results?

- Flexible pairing or grouping of students
- Allowing additional time
- Preferential seating

RESOURCES

Teacher Resources:

- NJASL Battle of the Books Handbook

Equipment Needed:

- Multiple copies of each book

GRADE 4 UNIT 1 OVERVIEW

Content Area: Gifted & Talented

Unit Title: The Physics of Toys

Target Course/Grade Level: Fourth Grade

Unit Summary: In this unit students will learn about Newton's three laws of motion. They will be able to define and apply the three laws of motion to the functionality of an array of objects that move. Students will be able to produce a research project that outlines who Sir Issac Newton was and how his theory of the three laws of motion applies to the physics of toys.

Approximate Length of Unit: 10 weeks

LEARNING TARGETS

NJ Student Learning Standards:

3-5-ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

4-PS3-1 Use evidence to construct an explanation relating the speed of an object to the energy of that object.

4-PS3-4 Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.

NJSLS English Language Arts

RI.4.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

RI.4.9 Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.

SL.4.5 Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.

W.4.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic.

W.4.8 Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information and provide a list of sources.

American Association of School Librarians:

III. COLLABORATE - Work effectively with others to broaden perspectives and work toward common goals.

B. THINK - Learners identify collaborative opportunities by:

1. Demonstrating their desire to broaden and deepen understandings.
2. Developing new understandings through engagement in a learning group.
3. Deciding to solve problems informed by group interaction.

Career Readiness, Life Literacies, and Key Skills:

9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).

9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).

9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.

New Jersey Student Learning Standards for English Language Arts Companion Standards:**Science and Technical Subjects:**

RST.6-8.1. Cite specific textual evidence to support analysis of science and technical texts.

RST.6-8.2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

RST.6-8.6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.

RST.6-8.9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Unit Understandings:

Students will understand that...

- The three laws of motion are based on the research that Sir Isaac Newton conducted
- Gravity, force, speed, and acceleration are factors that impact movement of all objects on the Earth
- There are three laws of motion and that each law demonstrates how things move on Earth
- That they can construct different objects that demonstrates Newton's three laws of motion

Unit Essential Questions:

What are Newton's three laws of motion?

How does Newton's three laws of motion demonstrate how objects move?

Knowledge and Skills:

Students will know.....

- How each law of motion impacts movement on Earth
- What is gravity and how does it impact movement on Earth
- How change of speed, direction, and acceleration can impact movement
- What the law of inertia means and how to demonstrate its meaning
- What the formula $F \text{ (Force)} = M \text{ (Mass)} A \text{ (Acceleration)}$ means and how to demonstrate its meaning
- What the law of action and reaction means and how to demonstrate its meaning

Students will be able to ...

- Produce a research project that reflects what they learned throughout the unit of study
- Design and construct experimental objects/structures that demonstrate Newton's laws of motion
- Analyze toys of physics and identify ways in which each object demonstrates one or more of Newton's laws of motion

EVIDENCE OF LEARNING

Assessment:

What evidence will be collected and deemed acceptable to show that students truly “understand”?

- Teacher observation
- Questions asked to the class
- Students can model the correct way to handle a situation
- Student oral feedback
- Class discussion
- Complete group project
- End of unit assessment

Learning Activities:

What differentiated learning experiences and instruction will enable all students to achieve the desired results?

- Flexible pairing or grouping of students
- Allowing additional time
- Preferential seating
- Provide multiple opportunities and methods for students to demonstrate what they have learned through the unit

RESOURCES

Teacher Resources:

Suggested Books and Videos:

- The Science of Disney Imagineering: Newton’s Three Laws of Motion, by Disney Educational Productions (Video)
- Isaac Newton and The Laws of Motion (Graphic Novel), by Andrea Gianopolos
- Discovering Nature’s Law: The Story of Isaac Newton, by Laura Salas
- Who Was Isaac Newton, by Janet Pascal
- Gravity, by Piper Whelan (Electronic Resource/Lightbox/Follett)

Suggested Websites:

www.school.eb.com
www.teacherpaysteacher.com
www.pinterest.com
www.brainpop.com
www.biography.com

www.physics4kids.com

www.ducksters.com

www.nasa.gov

www.pbslearningmedia.org

Equipment Needed:

(Suggested Materials)

- Computers
- Document Camera
- An array of physics toys (e.g. a slinky, a yoyo, a gyro wheel, the drinking bird toy, Newton's Cradle, frisbee, boomerang toy, a bouncing ball, a straw airplane, a spin top, etc.)
- Recyclable Materials for building vehicles that move (e.g. plastic/aluminum bottles, paper/plastic straws)
- Balloons
- Rope/string
- Water Rocket Science Kit

GRADE 4 UNIT 2 OVERVIEW

Content Area: Gifted & Talented

Unit Title: Battle of the Books

Target Course/Grade Level: Fourth Grade

Unit Summary: Battle of the Books is a reading motivation program. The goals of the program are to encourage reading for pleasure, broaden reading interests, and recognize students who enjoy reading. Titles of the official Reading Lists are chosen annually, according to Criteria for Book Selection. Student teams of four to five read the books over a period of months, discuss them, quiz each other on the contents, and then compete in these teams to correctly answer questions based on the books. The questions used all begin with, “In what book...” so answers will always be a title and an author. The state-wide program involves a cooperative effort by many individuals and local groups. It is popular with students and has provided new opportunities for academic competition. BATTLE OF THE BOOKS has also proven to be effective in its specified purpose: to stimulate an interest in reading

Approximate Length of Unit: 10 weeks

LEARNING TARGETS

NJ Student Learning Standards:

RL.4.1. Refer to details and examples in a text and make relevant connections when explaining what the text says explicitly and when drawing inferences from the text.

RL.4.2. Determine a theme of a story, drama, or poem from details in the text; summarize the text.

RL.4.3. Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character’s thoughts, words, or actions).

Career Readiness, Life Literacies, and Key Skills:

9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one’s thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).

9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).

9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.

AASL:

III. COLLABORATE - Work effectively with others to broaden perspectives and work toward common goals.

A. THINK - Learners identify collaborative opportunities by:

1. Demonstrating their desire to broaden and deepen understandings.
2. Developing new understandings through engagement in a learning group.
3. Deciding to solve problems informed by group interaction.

New Jersey Student Learning Standards for English Language Arts Companion Standards:

Science and Technical Subjects:

RST.6-8.1. Cite specific textual evidence to support analysis of science and technical texts.

RST.6-8.2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

RST.6-8.6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.

RST.6-8.9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Unit Understandings:

Students will understand that...

- Collaboration is necessary in order to compete in the Battle of the Books.
- It is important to discuss the characters, plot, and problem of each of the assigned books.

Unit Essential Questions:

What are the important ideas presented in the books?

Who are the characters?

What are the different settings?

Knowledge and Skills:

Students will know.....

- The specific details of the books to which they have been assigned.
- The strategy they can follow in order to best compete in the Battle of the Books.

Students will be able to ...

- Collaborate in order to compete in Battle of the Books.

<i>EVIDENCE OF LEARNING</i>

Assessment:

What evidence will be collected and deemed acceptable to show that students truly “understand”?

- “Memory Jogger” graphic organizer will be completed for each book read.
- Teacher observation of collaboration
- Team competition in Battle of the Books
- End of unit assessment

Learning Activities:

What differentiated learning experiences and instruction will enable all students to achieve the desired results?

- Flexible pairing or grouping of students
- Allowing additional time
- Preferential seating

RESOURCES

Teacher Resources:

- NJASL Battle of the Books Handbook

Equipment Needed:

- Multiple copies of each book

GRADE 4 UNIT 3 OVERVIEW

Content Area: Gifted & Talented

Unit Title: American Symbols & Landmarks

Target Course/Grade Level: Fourth Grade

Unit Summary: Students will learn about American Symbols and Landmarks through a project that will require them to research 10 symbols or landmarks and create a presentation. In addition, students will create a landmark or symbol to represent a part of our American History that has been underrepresented in our communities.

Approximate Length of Unit: 10 weeks

LEARNING TARGETS

NJ Student Learning Standards:

6.1.5.HistoryCC.1: Analyze key historical events from the past to explain how they led to the creation of the state of New Jersey and the United States.

6.1.5.HistoryCC.2: Use a variety of sources to illustrate how the American identity has evolved over time.

6.1.5.HistoryUP.5: Compare and contrast historians' interpretations of important historical ideas, resources and events.

6.1.5.HistoryUP.6: Evaluate the impact of different interpretations of experiences and events by people with different cultural or individual perspectives.

6.1.5.HistoryUP.7: Describe why it is important to understand the perspectives of other cultures in an interconnected world.

6.1.5.HistorySE.2: Construct an argument for the significant and enduring role of historical symbols, monuments, and holidays and how they affect the American identity.

Career Readiness, Life Literacies, and Key Skills:

9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).

9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).

9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.

AASL:

I. INQUIRE Build new knowledge by inquiring, thinking critically, identifying problems, and developing strategies for solving problems.

B. CREATE - Learners engage with new knowledge by following a process that includes:

1. Using evidence to investigate questions.
2. Devising and implementing a plan to fill knowledge gaps.
3. Generating products that illustrate learning.

**New Jersey Student Learning Standards for English Language Arts Companion Standards:
Science and Technical Subjects:**

- RST.6-8.1. Cite specific textual evidence to support analysis of science and technical texts.
- RST.6-8.2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.
- RST.6-8.6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.
- RST.6-8.9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Unit Understandings:

Students will understand that...

- There is purpose and importance of symbols and landmarks to our collective history.

Unit Essential Questions:

What are symbols and landmarks?

Why are these important to American history?

Has there been any part of our history underrepresented by symbols and landmarks?

Knowledge and Skills:

Students will know.....

- The location of the symbols and landmarks.
- The importance of the symbols and landmarks.

Students will be able to ...

- Create a symbol or landmark that represents a part of our American History that is not highlighted at this time.

EVIDENCE OF LEARNING

Assessment:

What evidence will be collected and deemed acceptable to show that students truly “understand”?

- Presentation of 10 American symbols and landmarks.
- Creation of a symbol or landmark that represents a part of our American History that is not highlighted at this time.
- End of unit assessment

Learning Activities:

What differentiated learning experiences and instruction will enable all students to achieve the desired results?

- Flexible pairing or grouping of students
- Allowing additional time
- Preferential seating

RESOURCES

Teacher Resources:

<https://www.americanhistoryforkids.com/category/us-symbols-and-memorials/>

<https://www.atozkidsstuff.com/symbols.html>

<https://fsjna.org/happy-birthday-grand-route/a-kids-guide-to-famous-u-s-landmarks/>

<https://www.areavibes.com/library/famous-american-landmarks-kids/>

Equipment Needed:

- ChromeBooks

GRADE 4 UNIT 4 OVERVIEW

Content Area: Gifted & Talented

Unit Title: Coding

Target Course/Grade Level: Fourth Grade

Unit Summary: Students will explore and use multiple coding platforms in order to discover how the use of logical thought is used to create many different types of outcomes using technology.

Approximate Length of Unit: 10 weeks

LEARNING TARGETS

Career Readiness, Life Literacies, and Key Skills:

8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate. Programming languages provide variables, which are used to store and modify data.

8.1.5.AP.2: Create programs that use clearly named variables to store and modify data. A variety of control structures are used to change the flow of program execution (e.g., sequences, events, loops, conditionals).

8.1.5.AP.3: Create programs that include sequences, events, loops, and conditionals. Programs can be broken down into smaller parts to facilitate their design, implementation, and review. Programs can also be created by incorporating smaller portions of programs that already exist.

8.1.5.AP.4: Break down problems into smaller, manageable sub-problems to facilitate program development.

8.1.5.AP.5: Modify, remix, or incorporate pieces of existing programs into one's own work to add additional features or create a new program. Individuals develop programs using an iterative process involving design, implementation, testing, and review.

8.1.5.AP.6: Develop programs using an iterative process, implement the program design, and test the program to ensure it works as intended

Career Readiness, Life Literacies, and Key Skills:

9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).

9.4.5.CI.4: Research the development process of a product and identify the role of failure as a part of the creative process (e.g., W.4.7, 8.2.5.ED.6).

9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).

9.4.5.CT.2: Identify a problem and list the types of individuals and resources (e.g., school, community agencies, governmental, online) that can aid in solving the problem (e.g., 2.1.5.CHSS.1, 4-ESS3-1).

9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.

9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global (e.g., 6.1.5.CivicsCM.3).

New Jersey Student Learning Standards for English Language Arts Companion Standards: Science and Technical Subjects:

RST.6-8.1. Cite specific textual evidence to support analysis of science and technical texts.

RST.6-8.2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

RST.6-8.6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.

RST.6-8.9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Unit Understandings:

Students will understand that...

- Coding is the method of giving instructions to a computer to perform a specific task. It is also referred to as “software programming” or “computer programming.” These instructions are communicated using a “computer language” that computers can understand.

Unit Essential Questions:

What is coding with algorithms, loops, conditionals, and events and how are these related to functions?

Knowledge and Skills:

Students will know.....

- How to code using algorithms, loops, conditionals, events, and functions.

Students will be able to ...

- Use the proper vocabulary when coding.
- Understand the importance of keeping personal information private.

<i>EVIDENCE OF LEARNING</i>

Assessment:

What evidence will be collected and deemed acceptable to show that students truly “understand”?

- Teacher observation
- Completion of activities.
- Capstone project at the end of the unit.
- End of unit assessment

Learning Activities:

What differentiated learning experiences and instruction will enable all students to achieve the desired results?

- Flexible pairing or grouping of students
- Allowing additional time
- Preferential seating

RESOURCES

Teacher Resources:

<https://code.org/educate/curriculum/elementary-school>

<https://www.tynker.com/school/coding-curriculum/>

<https://codewizardshq.com/coding-websites-for-kids>

<https://blockly.games/>

<https://codecombat.com/>

Equipment Needed:

- ChromeBooks
- Projection of ChromeBook for class observation
- Subscriptions to coding services
- Free subscriptions to coding services

GRADE 5 UNIT 1 OVERVIEW

Content Area: Gifted & Talented

Unit Title: “Return to the Moon”

Target Course/Grade Level: Fifth Grade

Unit Summary: This unit will show students the progress they can achieve by working together as a team. They will gain knowledge about the moon by completing specific tasks.

Approximate Length of Unit: 10 weeks

LEARNING TARGETS

NJ Student Learning Standards:

Progress Indicators for Reading Informational Text

Key Ideas and Details

RI.5.1. Quote accurately from a text and make relevant connections when explaining what the text says explicitly and when drawing inferences from the text.

RI.5.2. Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.

RI.5.3. Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.

Career Readiness, Life Literacies, and Key Skills:

9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one’s thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).

9.4.5.CI.4: Research the development process of a product and identify the role of failure as a part of the creative process (e.g., W.4.7, 8.2.5.ED.6).

9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).

9.4.5.CT.2: Identify a problem and list the types of individuals and resources (e.g., school, community agencies, governmental, online) that can aid in solving the problem (e.g., 2.1.5.CHSS.1, 4-ESS3-1).

9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.

9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global (e.g., 6.1.5.CivicsCM.3).

Science

1-ESS1-1: Earth’s Place in the Universe

ESS1.A: The Universe and its Stars

-Patterns of the motion of the sun, moon, and stars in the sky can be observed, described, and predicted.

ESS1.B: Earth and the Solar System

-Seasonal patterns of sunrise and sunset can be observed, described, and predicted.

K-PS3: Energy

K-PS3-1 Make observations to determine the effect of sunlight on Earth’s surface.

K-PS3-2 Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.

Math

5.OA: Operations and Algebraic Thinking

A. Write and interpret numerical expressions.

1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.

5.NBT Number and Operations in Base Ten

A. Understand the place value system.

1. Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and $\frac{1}{10}$ of what it represents in the place to its left.
2. Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.

AASL:

III. COLLABORATE - Work effectively with others to broaden perspectives and work toward common goals.

Think

Learners identify collaborative opportunities by:

1. Demonstrating their desire to broaden and deepen understandings.
2. Developing new understandings through engagement in a learning group.
3. Deciding to solve problems informed by group interaction.

Create

Learners participate in personal, social, and intellectual networks by:

1. Using a variety of communication tools and resources.
2. Establishing connections with other learners to build on their own prior knowledge and create new knowledge

Share

Learners work productively with others to solve problems by:

1. Soliciting and responding to feedback from others.
2. Involving diverse perspectives in their own inquiry processes.

Grow

Learners actively participate with others in learning situations by:

1. Actively contributing to group discussions.
2. Recognizing learning as a social responsibility.

New Jersey Student Learning Standards for English Language Arts Companion Standards:

Science and Technical Subjects:

RST.6-8.1. Cite specific textual evidence to support analysis of science and technical texts.

RST.6-8.2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

RST.6-8.6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.

RST.6-8.9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Unit Understandings:

Students will understand that...

- teamwork, cooperation and creativity are essential
- listening and following directions is crucial

Unit Essential Questions:

What skills are necessary to complete a successful mission to the moon?

What personal skills do I have that could be used in cooperation with others in order to complete a successful mission to the moon?

How can I use my skills in other areas to improve my thinking?

What can I learn from others through observation and cooperation?

Knowledge and Skills:

Students will know.....

- they are contributing to the success of the class' mission
- how to make responsible decisions

Students will be able to ...

- improve their communication skills
- gain closure by sharing their mission experience
- use critical/creative problem-solving skills

<i>EVIDENCE OF LEARNING</i>

Assessment:

What evidence will be collected and deemed acceptable to show that students truly “understand”?

- Teacher observation
- Questions asked to the class
- Students can model the correct way to handle a situation
- Student oral feedback
- Class discussion
- Complete group project
- End of unit assessment

Learning Activities:

What differentiated learning experiences and instruction will enable all students to achieve the desired results?

- Completion of a tasks
- Completion of mission

RESOURCES

Teacher Resources:

- Return to the Moon Teacher's Guide
- Worksheets
- Chromebook

Equipment Needed:

- Tools for different units
- Chromebook

GRADE 5 UNIT 2 OVERVIEW

Content Area: Gifted & Talented

Unit Title: Robotics through LEGO Mindstorms

Target Course/Grade Level: Fifth Grade

Unit Summary: This unit provides the students with the resources to design, build a program of their creation while helping them to develop essential skills such as creativity, critical thinking, collaboration and communications.

Approximate Length of Unit: 10 weeks

LEARNING TARGETS

NJ Student Learning Standards:

Career Readiness, Life Literacies, and Key Skills:

9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).

9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).

9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.

Computer Science and Design Thinking

8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate. Programming languages provide variables, which are used to store and modify data.

8.1.5.AP.2: Create programs that use clearly named variables to store and modify data. A variety of control structures are used to change the flow of program execution (e.g., sequences, events, loops, conditionals).

8.1.5.AP.3: Create programs that include sequences, events, loops, and conditionals. Programs can be broken down into smaller parts to facilitate their design, implementation, and review. Programs can also be created by incorporating smaller portions of programs that already exist.

8.1.5.AP.4: Break down problems into smaller, manageable sub-problems to facilitate program development.

8.1.5.AP.5: Modify, remix, or incorporate pieces of existing programs into one's own work to add additional features or create a new program. Individuals develop programs using an iterative process involving design, implementation, testing, and review.

8.1.5.AP.6: Develop programs using an iterative process, implement the program design, and test the program to ensure it works as intended.

Science

3-5-ETS1: Engineering Design Students who demonstrate understanding can:

3-5-ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3-5-ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

3-5-ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

Mathematics

MP.2 Reason abstractly and quantitatively. (3-5-ETS1-1),(3-5-ETS1-2),(3-5-ETS1-3)

MP.4 Model with mathematics. (3-5-ETS1-1),(3-5-ETS1-2),(3-5-ETS1-3)

MP.5 Use appropriate tools strategically. (3-5-ETS1-1),(3-5-ETS1-2),(3-5-ETS1-3)

3-5.OA Operations and Algebraic Thinking (3-5-ETS1-1),(3-5-ETS1-2)

AASL:

III. COLLABORATE - Work effectively with others to broaden perspectives and work toward common goals.

Think

Learners identify collaborative opportunities by:

1. Demonstrating their desire to broaden and deepen understandings.
2. Developing new understandings through engagement in a learning group.
3. Deciding to solve problems informed by group interaction.

Create

Learners participate in personal, social, and intellectual networks by:

1. Using a variety of communication tools and resources.
2. Establishing connections with other learners to build on their own prior knowledge and create new knowledge

Share

Learners work productively with others to solve problems by:

1. Soliciting and responding to feedback from others.
2. Involving diverse perspectives in their own inquiry processes.

Grow

Learners actively participate with others in learning situations by:

1. Actively contributing to group discussions.
2. Recognizing learning as a social responsibility.

New Jersey Student Learning Standards for English Language Arts Companion Standards:

Science and Technical Subjects:

RST.6-8.1. Cite specific textual evidence to support analysis of science and technical texts.

RST.6-8.2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

RST.6-8.6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.

RST.6-8.9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Unit Understandings:

Students will understand that...

- teamwork is important

Unit Essential Questions:

Why is it important to think logically when programming?

Knowledge and Skills:

Students will know.....

- testing codes to make robots follow a command

Students will be able to ...

- test how coding skills are used in robotics of almost any category
- create and command a robot to perform different tasks

<i>EVIDENCE OF LEARNING</i>

Assessment:

What evidence will be collected and deemed acceptable to show that students truly “understand”?

- Teacher observation
- Questions asked to the class
- Students can model the correct way to handle a situation
- Student oral feedback
- Class discussion
- Complete project
- End of unit assessment

Learning Activities:

What differentiated learning experiences and instruction will enable all students to achieve the desired results?

- completion of different phases of projects
- completion the entire project

RESOURCES

Teacher Resources:

- Mindstorms website

Equipment Needed:

- Robots by Izzi Howell
- Robots by Mark Bergin
- Robots by Clive Glifford
- Robots by Stanley Ling
- Lego Mindstorms kit

GRADE 5 UNIT 3 OVERVIEW

Content Area: Gifted & Talented

Unit Title: Junior Achievement BizTown

Target Course/Grade Level: Fifth

Unit Summary: This unit encompasses aspects of work readiness, entrepreneurship and financial literacy. Students will develop a solid foundation of business, economics and free enterprise education.

Approximate Length of Unit: 10 weeks

LEARNING TARGETS

NJ Student Learning Standards:

Anchor Standards

Key Ideas and Detail

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.R2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas

Progress Indicators for Speaking and Listening Comprehension and Collaboration

SL.5.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.

A. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion.

B. Follow agreed-upon rules for discussions and carry out assigned roles.

C. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.

D. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

Career Readiness, Life Literacies, and Key Skills:

9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).

9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).

9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.

Mathematics

5.OA Operations and Algebraic Thinking

A. Write and interpret numerical expressions.

1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.

AASL:

III. COLLABORATE - Work effectively with others to broaden perspectives and work toward common goals.

Think

Learners identify collaborative opportunities by:

1. Demonstrating their desire to broaden and deepen understandings.
2. Developing new understandings through engagement in a learning group.
3. Deciding to solve problems informed by group interaction.

Create

Learners participate in personal, social, and intellectual networks by:

1. Using a variety of communication tools and resources.
2. Establishing connections with other learners to build on their own prior knowledge and create new knowledge

Share

Learners work productively with others to solve problems by:

1. Soliciting and responding to feedback from others.
2. Involving diverse perspectives in their own inquiry processes.

Grow

Learners actively participate with others in learning situations by:

1. Actively contributing to group discussions.
2. Recognizing learning as a social responsibility.

New Jersey Student Learning Standards for English Language Arts Companion Standards: Science and Technical Subjects:

RST.6-8.1. Cite specific textual evidence to support analysis of science and technical texts.

RST.6-8.2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

RST.6-8.6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.

RST.6-8.9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Unit Understandings:

Students will understand that...

- when an economic decision is made, an opportunity cost is incurred
- philanthropy is important

Unit Essential Questions:

What does it look like to see our society in action?

How do business and government function in order to have a successful society?

Knowledge and Skills:

Students will know.....

- that resources are the people and things that are used to produce goods and services
- there are three basic types of resources: natural, human and capital

Students will be able to ...

- explain the importance of philanthropy
- build money management skills through a practical knowledge of economics
- develop an understanding of basic business practices and responsibilities
- display skills necessary for successful participation in the world of world

EVIDENCE OF LEARNING

Assessment:

What evidence will be collected and deemed acceptable to show that students truly “understand”?

- Teacher’s observations
- Questions asked to the class
- Students can model the correct way to handle a situation
- Student oral feedback
- Class discussion
- Complete group project
- End of unit assessment

Learning Activities:

What differentiated learning experiences and instruction will enable all students to achieve the desired results?

- Work completed on various topics such as financial services, checking accounts, savings accounts.

RESOURCES

Teacher Resources:

- Junior Achievement BizTown Teacher Guide
- Maps
- Diagrams
- Worksheet

Equipment Needed:

- White board
- Elmo machine
- Chromebook computer

GRADE 5 UNIT 4 OVERVIEW

Content Area: Gifted & Talente

Unit Title: The Environment

Target Course/Grade Level: Fifth

Unit Summary: In this unit of study students will learn about the major ecosystems of the Earth's environment. They will learn ways in which to preserve the Earth's environment through problem-based research projects and participation in first-hand experiences that will be provided for them through the program's educational convocations/field-trips.

Approximate Length of Unit: 10 weeks

LEARNING TARGETS

NJ Student Learning Standards:

Science

3-5-ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3-5-ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

5-LS2-1. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

5-ESS3-1. Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.

English Language Arts

RI.5.1 Quote accurately from a text and make relevant connections when explaining what the text says explicitly and when drawing inferences from the text.

RI.5.7 Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

RI.5.9 Integrate and reflect on (e.g. practical knowledge, historical/cultural context, and background knowledge) information from several texts on the same topic in order to write or speak about the subject knowledgeably.

W.5.8 Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.

Math

MP.2 Reason abstractly and quantitatively.

MP.4 Model with mathematics.

American Associations of School Librarians (AASL):

III. COLLABORATE - Work effectively with others to broaden perspectives and work toward common goals.

C. THINK - Learners identify collaborative opportunities by:

1. Demonstrating their desire to broaden and deepen understandings.
2. Developing new understandings through engagement in a learning group.
3. Deciding to solve problems informed by group interaction.

Career Readiness, Life Literacies, and Key Skills:

9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).

9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).

9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.

Civic Responsibility

Standard 9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community.

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.

New Jersey Student Learning Standards for English Language Arts Companion Standards:

Science and Technical Subjects:

RST.6-8.1. Cite specific textual evidence to support analysis of science and technical texts.

RST.6-8.2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

RST.6-8.6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.

RST.6-8.9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Unit Understandings:

Students will understand that...

- The Earth has different systems that are interrelated and co-dependent on one another.
- Human behavior can impact the Earth's natural environment

Unit Essential Questions:

How can human behavior impact the Earth's natural environment?

How are the components of the Earth's ecosystem interrelated?

Knowledge and Skills:

Students will know.....

- The major different components of the Earth's ecosystem and how they rely on each other
- Some ways in which human behavior can impact the Earth's natural environment

Students will be able to ...

- Produce a bottle biosphere that demonstrates the concepts that they learned about the Earth's ecosystems

- Construct a research project that identifies ways in which human behavior can impact the Earth's environment

EVIDENCE OF LEARNING

Assessment:

What evidence will be collected and deemed acceptable to show that students truly “understand”?

- Teacher observation
- Questions asked to the class
- Students can model the correct way to handle a situation
- Student oral feedback
- Class discussion
- Complete group project
- End of unit assessment

Learning Activities:

What differentiated learning experiences and instruction will enable all students to achieve the desired results?

- Flexible pairing or grouping of students
- Allowing additional time
- Preferential seating
- Provide multiple opportunities and methods for students to demonstrate what they have learned through the unit

RESOURCES

Teacher Resources:

Suggested Websites

https://www.huffpost.com/entry/childrens-books-environment_1_5d66f45de4b063c341fa409c
<https://www.amightygirl.com/mighty-girl-picks/top-children-s-books-on-the-environment>
<https://www.pragmaticmom.com/2017/05/environmental-nonfiction-picture-books/>
www.brainpop.com
www.school.eb.com
<http://cranberrycorner.blogspot.com/2010/07/summer-fun-ecosystem-edition.html>
https://www.pinterest.com/pin/121667627405623844/?nic_v2=1a1oBd2ZA
<https://www.tarheelstateteacher.com/blog/ecosystems-museum-project>
<http://lifeloveliteracy.blogspot.com/2015/03/mobile-museum-ecosystems-exhibitspbl.html>
<https://www.dukefarms.org/classes>
<https://philadelphiazoo.org/>
<https://www.bbg.org/>
<https://kids.niehs.nih.gov/lessons/index.htm>
<https://www.startwithabook.org/summer-reading-learning/nature-our-green-world#31>

<https://www.scholastic.com/teachers/articles/teaching-content/books-and-resources-teaching-kids39environmental-report-card/>

https://www.nationalgeographic.org/topics/resource-library-human-impacts-environment/?q=&page=1&per_page=25

<https://www.plt.org/educator-tips/ecosystem-activities-elementary-students>

<https://www.generationgenius.com/ecosystems-for-kids/>

<https://www.pbslearningmedia.org/resource/plum14.sci.life.lpecochal/ecosystem-challenge/>

<https://www.scholastic.com/teachers/activities/teaching-content/ecosystems-11-studyjams-interactive-science-activities/>

<https://layers-of-learning.com/pop-bottle-ecosystem/>

Suggested Books

- Environment, by David Cook
- What is Climate Change?, by Gail Herman
- Start Now! You Can Make A Difference, by Chelsea Clinton
- Hello, World! Rainforest..., by Jill McDonald
- The Magic School Bus and the Climate Challenge Children Change, by Darienne Stewart
- Our Environment, by Teacher Created Materials

Equipment/Supplies Needed:

- Computers
- Document Camera
- Bottles
- Guppies or snails
- Rocks/gravel
- Water
- Soil
- Planting beans
- Dechlorinator
- Aquatic plants
- Crickets or earthworms
- A few dead leaves and small twigs

(Suggested Materials/Kits)

- Glow and Grow Terrarium Set
- What A Waste: Trash, Recycling, and Protecting Our Planet, by Jess French
- Clean Water Science - Climate Change, Global Warming, Lab- STEM (Green Science)

GRADE 6 UNIT 1 OVERVIEW

Content Area: Gifted & Talented

Unit Title: Robotics with Ozobots

Target Course/Grade Level: Sixth Grade

Unit Summary: Ozobot is a robotic platform that empowers coding and STEAM education. Students will create and utilize code to foster the creative experience and motivate students to keep learning and exploring.

Approximate Length of Unit: 10 weeks

LEARNING TARGETS

NJ Student Learning Standards

Anchor Standards

Key Ideas and Detail

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.R2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas

Progress Indicators for Speaking and Listening Comprehension and Collaboration

SL.5.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.

A. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion.

B. Follow agreed-upon rules for discussions and carry out assigned roles.

C. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.

D. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

Career Readiness, Life Literacies, and Key Skills:

9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).

9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).

9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.

Mathematics

5.OA Operations and Algebraic Thinking

A. Write and interpret numerical expressions.

1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.

Computer Science and Design Thinking

8.1.8.AP.3: Design and iteratively develop programs that combine control structures, including nested loops and compound conditionals.

8.1.8.AP.4: Decompose problems and sub-problems into parts to facilitate the design, implementation, and review of programs.

8.1.8.AP.5: Create procedures with parameters to organize code and make it easier to reuse.

8.1.8.AP.6: Refine a solution that meets users' needs by incorporating feedback from team members and users.

8.1.8.AP.7: Design programs, incorporating existing code, media, and libraries, and give attribution.

8.1.8.AP.8: Systematically test and refine programs using a range of test cases and users.

8.1.8.AP.9: Document programs in order to make them easier to follow, test, and debug.

AASL:

III. COLLABORATE - Work effectively with others to broaden perspectives and work toward common goals.

Think

Learners identify collaborative opportunities by:

1. Demonstrating their desire to broaden and deepen understandings.
2. Developing new understandings through engagement in a learning group.
3. Deciding to solve problems informed by group interaction.

Create

Learners participate in personal, social, and intellectual networks by:

1. Using a variety of communication tools and resources.
2. Establishing connections with other learners to build on their own prior knowledge and create new knowledge

Share

Learners work productively with others to solve problems by:

1. Soliciting and responding to feedback from others.
2. Involving diverse perspectives in their own inquiry processes.

Grow

Learners actively participate with others in learning situations by:

1. Actively contributing to group discussions.
2. Recognizing learning as a social responsibility.

New Jersey Student Learning Standards for English Language Arts Companion Standards: Science and Technical Subjects:

RST.6-8.1. Cite specific textual evidence to support analysis of science and technical texts.

RST.6-8.2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

RST.6-8.6. Analyze the author's purpose in providing an explanation, describing a procedure, or

discussing an experiment in a text.

RST.6-8.9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Unit Understandings:

Students will understand that...

- teamwork is important

Unit Essential Questions:

Why is it important to think logically when programming?

Knowledge and Skills:

Students will know.....

- testing codes to make robots follow a command

Students will be able to ...

- test how coding skills are used in robotics of almost any category
- create and command a robot can do

EVIDENCE OF LEARNING

Assessment:

What evidence will be collected and deemed acceptable to show that students truly “understand”?

- Teacher’s observations
- Questions asked to the class
- Students can model the correct way to handle a situation
- Student oral feedback
- Class discussion
- Complete group project
- End of unit assessment

Learning Activities:

What differentiated learning experiences and instruction will enable all students to achieve the desired results?

- Flexible pairing or grouping of students
- Allowing additional time
- Preferential seating
- Provide multiple opportunities and methods for students to demonstrate what they have learned through the unit

RESOURCES

Teacher Resources:

- Ozobot Teacher Guide
- Diagrams
- Worksheets
- <https://ozobot.com/educate/classroom>

Equipment/Supplies Needed:

- White board
- EPSON BrightLink or other way to present to class
- Markers
- Paper
- ChromeBooks
- Ozobots kit
- <https://ozobot.com/educate/classroom>

GRADE 6 UNIT 2 OVERVIEW

Content Area: Gifted & Talented

Unit Title: Junior Achievement BizTown

Target Course/Grade Level: Sixth

Unit Summary: This unit encompasses aspects of work readiness, entrepreneurship and financial literacy. Students will develop a solid foundation of business, economics and free enterprise education.

Approximate Length of Unit: 20 weeks

LEARNING TARGETS

NJ Student Learning Standards:

Anchor Standards

Key Ideas and Details

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.R2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas

Progress Indicators for Speaking and Listening Comprehension and Collaboration

SL.5.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.

A. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion.

B. Follow agreed-upon rules for discussions and carry out assigned roles.

C. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.

D. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

Career Readiness, Life Literacies, and Key Skills:

9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).

9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).

9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.

Mathematics

Math 5.0A

A. Write and interpret numerical expressions.

1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.

AASL:

III. COLLABORATE - Work effectively with others to broaden perspectives and work toward common goals.

Think

Learners identify collaborative opportunities by:

1. Demonstrating their desire to broaden and deepen understandings.
2. Developing new understandings through engagement in a learning group.
3. Deciding to solve problems informed by group interaction.

Create

Learners participate in personal, social, and intellectual networks by:

1. Using a variety of communication tools and resources.
2. Establishing connections with other learners to build on their own prior knowledge and create new knowledge

Share

Learners work productively with others to solve problems by:

1. Soliciting and responding to feedback from others.
2. Involving diverse perspectives in their own inquiry processes.

Grow

Learners actively participate with others in learning situations by:

1. Actively contributing to group discussions.
2. Recognizing learning as a social responsibility.

New Jersey Student Learning Standards for English Language Arts Companion Standards:

Science and Technical Subjects:

RST.6-8.1. Cite specific textual evidence to support analysis of science and technical texts.

RST.6-8.2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

RST.6-8.6. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.

RST.6-8.9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

Unit Understandings:

Students will understand that...

- when a economic decision is made, an opportunity cost is incurred philanthropy is important

Unit Essential Questions:

What does it look like to see our society in action?

How do business and government function in order to have a successful society?

Knowledge and Skills:

Students will know.....

- that resources are the people and things that are used to produce goods and services
- there are three basic types of resources: natural, human and capital

Students will be able to ...

- explain the importance of philanthropy
- build money management skills through a practical knowledge of economics
- develop an understanding of basic business practices and responsibilities
- display skills necessary for successful participation in the world of work

EVIDENCE OF LEARNING

Assessment:

- *What evidence will be collected and deemed acceptable to show that students truly “understand”?*
- Teacher’s observation
- Questions asked to the class
- Students can model the correct way to handle a situation
- Student oral feedback
- Class discussion
- Complete group project
- End of unit assessment

Learning Activities:

What differentiated learning experiences and instruction will enable all students to achieve the desired results?

- Work completed on various topics such as financial services, checking accounts, savings accounts.

RESOURCES

Teacher Resources:

- Junior Achievement BizTown Teacher Guide
- Maps
- Diagrams
- Worksheet

Equipment/Supplies Needed:

- White board
- Epson machine
- Laptop computer
- Chromebook computer
- Biztown workbook
- Biztown checkbook

GRADE 6 UNIT 3 OVERVIEW

Content Area: Gifted & Talented

Unit Title: Forensics

Target Course/Grade Level: Sixth Grade

Unit Summary: In this unit, students learn general information about criminal investigations, research various types of evidence, and apply the information they have learned by participating in a crime scene investigation.

Approximate Length of Unit: 10 weeks

LEARNING TARGETS

NJ Student Learning Standards:

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.R2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.

NJSLSA.R3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

NJSLSA.R8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.

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.W3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

NJSLSA.SL2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

Career Readiness, Life Literacies, and Key Skills:

9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).

9.4.5.CT.1: Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).

9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.

9.4.8.CT.1: Evaluate diverse solutions proposed by a variety of individuals, organizations, and/or agencies to a local or global problem, such as climate change, and use critical thinking skills to predict which one(s) are likely to be effective.

Interdisciplinary Connections and Standards:

Science

MS-PS1-2 Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.

NJ SLS Companion Standards: Reading and Writing Standards for History, Social Studies, Science, and Technical Subjects:

RST.6-8.1. Cite specific textual evidence to support analysis of science and technical texts.

RST.6-8.2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

RST.6-8.3. Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

RST.6-8.8. Distinguish among facts, reasoned judgment based on research findings, and speculation in a text

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.W9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

Unit Understandings:

Students will understand that...

- Many crimes, including robbery, arson, counterfeiting, computer fraud and murder are committed each day.
- Solving crimes is no longer a matter of happenstance.
- Advances in science allow scientists to gather and analyze pieces of evidence.
- The study of evidence is called forensic science.

Unit Essential Questions:

What is Locard's Principle?

What is the scientific method?

How are criminal investigations conducted?

What careers are in forensic science?

Knowledge and Skills:

Students will know.....

- Police procedures at a crime scene.
- Procedures for evidence collection.
- The Locard Principle and its purpose.
- Various forensic science careers.

Students will be able to ...

- Recognize the role science plays in a criminal investigation
- Study and apply the scientific method as it relates to a criminal investigation.
- Apply critical thinking skills.
- Draw conclusions based on observations and facts.
- Become aware of careers associated with forensic science, law enforcement, and criminal justice.

EVIDENCE OF LEARNING

Assessment:

What evidence will be collected and deemed acceptable to show that students truly “understand”?

- Teacher’s observations
- Questions asked to the class
- Students modeling the correct way to handle a situation
- Student oral feedback
- Class discussion
- Complete group project
- End of unit assessment

Learning Activities:

What differentiated learning experiences and instruction will enable all students to achieve the desired results?

- Flexible pairing or grouping of students
- Allowing additional time
- Preferential seating

MISSION STATEMENT OF THE RAHWAY PUBLIC SCHOOLS

With diversity as our strength, the Rahway School Community shall provide inclusive and challenging programs to accommodate the unique needs of all students, allowing them to experience success and reach their highest potential. Our programs will prepare all students to become independent and self-sufficient adults who will succeed and contribute responsibly in the global community.

DISTRICT GOALS

- Raise achievement levels.
- Prepare students to make a positive contribution to our society.
- Provide for students' self-esteem, self-discipline, growth and development.
- Create a community of life-long learners.
- Promote professionalism and well-being among our staff.
- Develop a positive school climate for learning.

PHILOSOPHY

The Board of Education and the staff of the Rahway Public School District believe that each student is a unique and valued individual with varied abilities, interests, needs and potential for growth. The Rahway Board of Education is committed to providing a system of education which will prepare each student to raise his/her achievement levels and to make a positive contribution to our society.

The Rahway Board of Education recognizes the need to enhance and enrich the school district's educational program. Therefore, the Gifted and Talented Program was developed to stimulate and challenge students and appropriately bring them above and beyond classroom related activities through the use of technology, enriching materials, and accelerated instruction.

The students will:

- investigate topics, issues and areas of in-depth study not ordinarily perused in the regular classroom.
- participate in activities that foster creative thinking, problem-solving, and higher mental processes such as analysis, synthesis and evaluation.
- use advanced and varied forms of resource materials related to their individual area of interest.
- develop appropriate outlets for their creative and productive talents.
- develop independent learning skills and self-directedness in planning and carrying out individual projects.
- develop a better understanding of self and the ability to recognize and deal with feelings related to their giftedness.
- develop the ability to communicate and cooperate effectively with persons of similar and differing intellectual abilities.
- develop leadership skills and decision-making ability.

- assume responsibility for their work.
- explore a variety of subject areas, including but not limited to Language Arts, Math, Social Studies, Science and Technology.

INTRODUCTION

The gifted and talented students in our schools today will be true leaders of a changing world. Therefore, it is our responsibility to prepare these students to meet the challenges of the twenty-first century.

The past two decades of curriculum and instruction have been characterized by movement away from content and toward process. This approach is particularly well suited for educating the gifted, for it involves higher levels of thinking that extend far beyond basic knowledge and comprehension into thought processes that emphasize analysis, synthesis, and evaluation.

The model for gifted education in the elementary school incorporates three elements: principles, processes, and products. Because all students have different learning styles, the teacher must consider where any particular student falls along a continuum. Therefore, in planning curricular activities the teacher should consider the following:

- Is the child reflective or impulsive?
- Is the child verbal or non-verbal?
- Is the child dependent or independent?
- Does the child demonstrate task commitment or is he/she easily distracted?
- Is the child spontaneous or does he/she need direction?

In addition, the teacher must consider the special characteristics of the gifted child – those traits that make the gifted child different from all others. Among those characteristics which are important when considering a program for the gifted are the following:

- ability to retain information
- highly developed curiosity
- wide range of interests
- ability to learn the basics more quickly
- interest in figuring things out
- ability to put things/ideas together in unique ways.

Programs or curricula for gifted students should not dwell on concepts or ideas that the child has already mastered. Because mandated curricula may incorporate concepts of which the gifted child already has a working knowledge, the acceleration of such material is suggested in the form of presenting more skills and concepts within a briefer period of time. Likewise, mastered concepts can then be applied to new situations and materials. The time that is saved can then be used to incorporate enrichment of the subject matter.

In addition, the Gifted and Talented Program that is being offered takes place in an environment that encourages communication of feelings, ideas and thoughts between the teacher and students. This environment also encourages students to satisfy their curiosity and broaden their interests while at the same time improves higher-level thinking, problem-solving and critical thinking skills.

The Program also encourages students to develop leadership skills as they turnkey their knowledge with their classmates.

In conclusion, meeting the needs of gifted and talented students is very challenging and rewarding. The structure of the program must remain flexible and should be revisited periodically in order to address current educational programs, services, and the latest research on how children learn.

PROGRAM DESCRIPTION

GRADES K-2

Once students are identified as accelerated students by using the appropriate criteria for Grades K, 1, and 2, classroom teachers will address student needs. General Education teachers will provide identified students with advanced, not additional, enrichment activities in all subject areas. Resources will be available to the General Education teachers through the Gifted and Talented Program teachers.

Suggestions for grade level enrichment activities include, but are not limited to:

- reading comprehension activities
- writing more complex stories in sequence
- accelerated calculator use
- extension activities of Full Option Science System (FOSS) Kit
- advanced computer activities
- independent enrichment activities.

For the purpose of achievement and progress, examples of enrichment activities will be kept in the student's folder for ongoing review by appropriate staff and parents.

GRADES 3-6

The Elementary Gifted and Talented Program will meet the needs of students in grades three through six in each of the district's four elementary schools with a pullout program averaging 60 minutes per week. The Program will provide educational experiences which will enable gifted students to develop their talents and skills to as great an extent as their abilities, interests, and available resources allow. Additionally, these experiences will enhance the personal and social development of students with exceptional abilities. The actual structure of each lesson will depend primarily on the activity that has been planned. Flexibility will be a key element in planning these activities, since the Gifted and Talented teacher will be sensitive to the classroom curriculum and the immediate needs of the children.

The Rahway Public School district and the Board of Education are committed to making the curriculum for gifted students relevant. Keeping this in mind, the Gifted and Talented Program can be described by outlining its major components as follows:

- There will be a greater utilization of technology. Students will be exposed to and become familiar with technology skills that surpass their classroom experiences. They will become adept at using extensions such as the digital camera and will, in turn, assist their classmates in utilizing this technology.

In order to build confidence and self-esteem, the Program will also incorporate a number of other activities which may include:

- “Battle of the Books”
- Stock Market Game
- Math Counts
- Robotics
- Battle of the Minds (Jeopardy)
- Mock Trial (creating and writing a civil trial for competition purposes)

1. PARTICIPATION IN INTER-DISTRICT CONVOCATIONS

Students are involved in extra-curricula activities offered through the Program, because the teachers are members of the Union County Gifted and Talented Association and the New Jersey Association of Gifted and Talented. The Union County Gifted and Talented Association enables students to participate in grade level activities such as science colloquiums, and problem-solving bowls. Meetings of the Union County Gifted and Talented Association are held a maximum of four times annually. During these meetings, activities are decided upon and developed. Sites vary depending on the number of children attending and availability of space.

2. INSTRUMENTAL BAND CHORUS AND STRINGS

Students with musical talent (instrumental and vocal) are eligible to participate in the Rahway Elementary Schools band, chorus, and strings. Through participation, musically talented students enhance their musical skills and have an opportunity to improve their showmanship by showcasing their talent at a number of school performances and/or music competitions.

GRADES 7-8

1. HONORS PROGRAM

The Honors Program is an intense and fast-paced approach to the curriculum offered to students who can accept an academic challenge. Those students who meet the entry criteria as outlined on pages 19-20 are exposed to advanced studies encompassing all disciplines.

The Honors Program is conducted within the school day. This Program is available to eligible seventh and eighth grade students.

2. UNION COUNTY TEEN ARTS FESTIVAL

Students talented in the arts in grades seven and eight may participate in the Union County Teen Arts Festival. The Union County Teen Arts Festival is scheduled in March at Union County College. In a non-competitive atmosphere, a staff of 50 professional artists will conduct critiquing seminars, master classes, and interactive workshops. Students will be able to participate in visual arts, music (instrumental and vocal), and writing critiques. Students will be able to showcase their creativity in visual arts, music, dance, theater, and writing. Scheduled annually, the Union County Teen Arts Festival is conducted during school time. In its budget, the District will cover the cost of transportation.

3. NEW JERSEY MATH LEAGUE CONTEST

In Rahway 7th and 8th Grade Academy during each winter, all honors students and eligible students from other programs (see page 20) participate in the New Jersey Math League Contest. Scheduled annually, the New Jersey Math League Contest is a State competition in test form. Students are challenged to solve mathematics problems which require application of creative and logical thinking skills as well as math skills. Students are informed of their results. Participation by Honors and eligible students is mandatory.

4. INSTRUMENTAL BAND, CHORUS, AND STRINGS

Students with musical talent (instrumental and vocal) are eligible to participate in the Rahway 7th and 8th Grade Academy band, chorus and strings. Through participation, musically talented students enhance their musical skills and have an opportunity to improve their showmanship by showcasing their talent at a number of school performances and/or music competitions.

5. ART CLUB

The Art Club is open to all students in both grade levels interested in participating in a variety of hands-on art activities. Students are provided with an opportunity to enhance their artistic talents.

6. SCHOOL PLAY

All students with interest and talent in drama in both grade levels may audition for the school play. Students gain valuable experience and are afforded the opportunity to showcase their dramatic talents.

7. MATH COUNTS

Math Counts is a national coaching and competition program designed to stimulate students' interest and achievement in mathematics.

8. MATH CHALLENGE

Math Challenge is a game of number sense for both levels which helps reinforce operations of all mathematics skills and strengthens mental math skills.

GRADES 9-12

At the High School, Honors and Advanced Placement courses are offered to students who qualify and have met the required prerequisites. In addition to the academically advanced courses, there are numerous clubs and extracurricular activities which are available to students who reflect an interest and display talent in a given area.

1. HONORS COURSES

Because of the increased required work for students, honors courses will receive a greater weight in the determination of class rank. Honors courses require a high level of commitment for homework and research well beyond the school day.

In order to participate in honors courses, students must have a grade average of 85 and can request admission to an honors class.

2. HONORS ENGLISH COURSES

- Designed for the student who desires a fast-paced, challenging program
- Student will engage in a close study of additional selected literary works
- Emphasis on more advanced techniques in both formal and informal writing in preparation for college work

Course Offerings: Honors English I, II, III, IV

3. HONORS WORLD LANGUAGES PROGRAM

- Courses designed to meet college entrance requirements
- Methods and materials enable students to learn directly in a world language
- Modern and classical literature read and discussed in targeted language
- Advanced level of instruction in reading, listening, writing, and speaking in targeted language

- Thorough advanced study of grammar and translation
- Use of computer technology
- PowerPoint presentations on various topics found on web site in targeted language will be studied

Course Offerings: Honors French II, IV; Honors Spanish III, IV; Honors Italian III, IV

4. HONORS MATH PROGRAM

- Courses designed for students who have demonstrated aptitude or interest in mathematics
- Foundation for further work in college preparatory math designed for students who intend to pursue careers in mathematical sciences

Course Offerings: Honors Algebra I, II; Honors Geometry; Honors Pre-Calculus

5. HONORS SCIENCE PROGRAM

- Intense focus on sophisticated areas of science
- Extensive laboratory classes are a required part of every course
- Material presented at a rapid pace
- Courses geared toward preparing students for high level science courses and related careers

Course Offerings: Honors Biology; Honors Chemistry; Honors Physics

6. HONORS SOCIAL STUDIES PROGRAMS

- Course covers historic periods such as American History I with additional readings, library research and writing assignments
- Students will be given the opportunity to examine current world through an historic perspective
- Courses cover 11 cultural regions of the contemporary world

Course Offerings: Honors American History I, II; Honors World Cultures

7. ADVANCED PLACEMENT COURSES

- College level courses, which may be accepted for college credit at some colleges and universities
- Students should be highly motivated as the program of studies will be very demanding
- Prepares students for examination by College Board
- Courses include in-depth studies of program content
- Students are required to take the Advanced Placement examinations (the student pays \$50.00 of the total fee and the Board underwrites the balance).

Course Offerings: Advanced Placement Literature and Composition, Language and Composition, Calculus AB, Biology, Chemistry, American History, Physics B, Statistics, U.S. Government, Comparative Government, French and Spanish

8. CLUBS AND EXTRACURRICULAR ACTIVITIES

Include but not limited to:

National Honor Society, French Honor Society, Spanish National Honor Society, Art National Honor Society, Thespian Society, Madrigals, Band, Jazz Band, Drama Production, Dance

NOTE: Students displaying interest and/or talent are encouraged to participate in clubs and extracurricular activities.

PROGRAM OBJECTIVES

GRADES K-6

I. DEVELOP COGNITIVE ABILITIES

The student will be given the opportunity to obtain knowledge through investigation and research, and expand learning to include areas of more complex nature via technology, i.e., Internet.

II. DEVELOP SKILL IN PROBLEM-SOLVING

The student will be given the opportunity to learn to sense and clarify problems in a variety of situations, develop skills in gathering information pertinent to a specific

problem, and to produce a variety of possible solutions to a specific problem through analysis and synthesis.

In addition, the student will develop skill in evaluating all possible solutions to a specific problem, as well as develop skill in planning the implementation of a solution to a specific problem.

III. DEVELOP CRITICAL THINKING SKILLS

The student will develop the ability to formulate opinions in various areas of study, and develop skill in judging the value of ideas, materials, products, activities, and works of art.

IV. DEVELOP CREATIVE AND DIVERGENT THINKING SKILLS

The student will be given the opportunity to demonstrate fluency by producing quality ideas or projects in a timely manner, demonstrate flexibility through the ability to approach ideas and problems from a number of different perspectives, and demonstrate the ability to elaborate through the development of basic ideas with interesting and relevant details.

V. IMPROVE SKILLS IN THE AREA OF COMMUNICATION

The student will be given the opportunity to engage in a variety of activities to improve their oral communication skills, extend written communication skills by utilizing them in various activities in the Program, be involved in experiences that will add depth to comprehension and vocabulary, and will stimulate critical and creative reading skills, and further develop his/her listening skills through appropriate activities in the Program.

VI. DEVELOP SKILL IN AREAS OF INDEPENDENCE, SELF-MOTIVATION AND LEADERSHIP

The student will be given the opportunity to accomplish the following:

- learn to formulate goals, select methods to use, and make the necessary effort to achieve their objectives
- demonstrate the ability to plan, think, and work independently as a result of experience in situations where these skills can be practiced
- develop personal responsibility and persistence in seeking task completion
- learn to evaluate their own ideas and progress in the Program

VII. DEVELOP RESEARCH SKILLS

The student will be given the opportunity to demonstrate his/her ability to apply research techniques in completing projects and continue the development of researching skills from electronic media and on-line services.

VIII. DEVELOP SKILLS IN THE AREA OF TECHNOLOGY

The student will be given the opportunity to practice basic keyboarding skills, produce multimedia presentations, learn to use computer extensions, such as digital camera and scanner to enhance projects, as well as turnkey their knowledge of technology with their classmates.

GRADES 7-8

I. DEVELOP GIFTED BEHAVIORS

Gifted behaviors will be developed in all students possessing or capable of developing an interaction among three traits: above average ability, high level of task commitment, and a high level of creativity.

The student will be given the opportunity to formulate goals, select methods, and make the necessary effort to achieve goals, develop intense involvement in a task-specific activity, and produce a new piece of knowledge or product within a chosen area of interest.

II. RAISE SELF-ESTEEM AND MOTIVATION

The student will be given the opportunity to enhance self-esteem through recognition as a creative and productive individual, enhance self-esteem through recognition as an original thinker/researcher, and enhance motivation to explore new ideas and make choices based on individual interests.

III. APPLY THE PROBLEM-SOLVING METHOD

The student will be given the opportunity to learn and utilize the problem-solving process: identify the problem, devise different solutions, collect data, select solution, test (evaluate and improve) and revise solution. The student will also participate in the creative problem-solving process through hands-on experiences.

IV. DEVELOP ORIGINAL THINKING/RESEARCH

The student will be given the opportunity to conduct original research based on a clearly stated hypothesis, use skills of research including planning and organizing, and use appropriate methodology to collect and sort data. The student will also be able to draw justifiable conclusions, communicate research findings to an audience, and expand knowledge by finding, utilizing, and assimilating information from a variety of primary and secondary sources including personal interviews, New York Times Index, Government documents, and the Internet.

V. APPLY LOGICAL REASONING AND CREATIVE/DIVERGENT THINKING SKILLS

The student will be given the opportunity to approach ideas and problems from a number of different perspectives, demonstrate originality by combining ideas and materials in a number of ways to create products of unusual character and quality, demonstrate creative-productive potential by inventing, designing, and composing new products, as well as demonstrate inductive and deductive reasoning in various situations.

VI. APPLY COMMUNICATION SKILLS

The student will be given the opportunity to present findings clearly and concisely, use visuals effectively during presentations, deliver a presentation that is based on information that supports or defeats a stated hypothesis, and uses public speaking skills to enhance delivery.

GRADES 9-12

Students at the high school level will continue to build upon and expand the goals set on the previous school levels. In addition, students enrolled in Honors and Advanced Placement courses will be expected to accomplish course requirements on an exceptional level.

I. HONORS COURSES

A. Honors English I, II, III and IV

The student will be given the opportunity to engage in a close study of additional literary works, and engage in more advanced techniques in formal and informal writing and prepare for college work.

B. Honors Foreign Languages

Honors French III and IV

The student will be given the opportunity to use all grammar and verb tenses; read and discuss current events in French using French newspapers and magazines; use technology to learn about language and make presentations in French, as well as use contextualized activities and class discussions.

Honors Spanish III and IV

The student will be given the opportunity to use four skills of reading, writing, speaking and listening and to conduct formal and written/oral recitations.

The student will use technical language and legal documentation, learn to develop an appreciation of Spanish art, music, and cuisine and to use Spanish newspapers and magazines to promote fluency.

Honors Italian III and IV

The student will be given the opportunity to use four skills of reading, writing, speaking and listening and to conduct formal and written/oral recitations. In addition, the student will use technical language and legal documentation.

The student will develop an appreciation of Italian art, music, and cuisine and use Italian newspapers and magazines to promote fluency.

C. Honors Mathematics

Honors Algebra I and II

The student will be given the opportunity to build a foundation for more advanced courses, as well as build a foundation for introduction to trigonometry.

Honors Geometry

The student will be given the opportunity to build a strong background in mathematics by using modern geometry structure and method.

Honors Pre-Calculus

The student will be given the opportunity to take Advanced Placement Calculus in senior year.

D. Honors Science

Honors Biology

The student will be given the opportunity to learn about major life processes, cellular biology, genetics, kingdoms of living organisms, DNA, genetic engineering, and engage in intensive lab period.

Honors Chemistry

The student will be given the opportunity to engage in extensive laboratory experiments to introduce chemical principle, as well as explore topics such as: atomic theory, chemical reactions, kinetic theory, radioactivity, and molecular bonding.

Honors Physics I and II

The student will be given the opportunity to explore, in depth, topics such as: motion, forces, energy, states of matter, waves, light, electricity, magnetism, the atom, nuclear fission and fusion.

E. Honors Social Studies

Honors American History I and II

The student will be given the opportunity to complete additional reading, library research, and writing assignments and to explore the role of New Jersey in the progress of America's history.

Honors World Cultures

The student will be given the opportunity to study each of the world cultures in greater depth and devote additional time to the analysis of contemporary international, political, and economic development.

II. ADVANCED PLACEMENT COURSES

Advanced Placement English

The student will be given the opportunity to develop skills in critical reading of quality literature activities and in literary analysis. In addition, the student will demonstrate college level work by taking the Advanced Placement English examination in literature and composition.

Students will engage in a rigorous program of intellectually challenging literature and subsequent writing experiences.

Advanced Placement Calculus

The student will be given the opportunity to receive college credit by most colleges for one semester of Calculus I. The student will also be prepared to take the College Board Exam.

Advanced Placement Biology

The student will be given the opportunity to have an in-depth study of biology stressing biochemistry, molecular biology, and advanced lab techniques.

Advanced Placement Chemistry

The student will be given the opportunity to review and study more intensively the concepts previously covered in Honors Chemistry and prepare for the Advanced Placement Exam in the Spring. In addition the student will master subject matters comparable to most first-year college chemistry courses, develop good lab techniques, and the ability to work independently on various types of experiments.

Advanced Placement American History

The student will be given the opportunity to understand the origin and development of our nation and its unique cultural identity and to analyze the history of America and understand America's story in the context of the world's history.

In addition, the student will interact with others and learn concepts and principles throughout the study of American History upon which one can build a personal philosophy, and prepare for the Advanced Placement Exam in the Spring.

Advanced Placement French

The student will be given the opportunity to understand the origin and development of nations with French influence and their unique cultural identities, and to analyze the history of France and understand its story in the context of the world's platform.

In addition, the student will interact with others and learn concepts and principles throughout the study of French history, culture and literature, and prepare for the Advanced Placement Exam in the Spring.

Advanced Placement Spanish

The student will be given the opportunity to understand the origin and development of nations with Spanish influence and their unique cultural identities, and to analyze the history of Spain and understand its story in the context of the world's platform.

In addition, the student will interact with others and learn concepts and principles throughout the study of Spanish history, culture and literature, and prepare for the Advanced Placement Exam in the Spring.

SELECTION OF STUDENTS

GRADES K -2

WHO: General Education classroom teacher assesses all children for possible identification for eligibility into the Program using the “Criteria for Selection” Form, Appendix A-1.

WHEN: Assessment of students is completed as follows:
Kindergarten – January
Grades 1 and 2 – end of first marking period

HOW: Teachers will use Appendix A and A-1 to nominate students.

Students earning 36 points out of a maximum of 40 points will be identified as accelerated students. The teacher will then complete the Accelerated Program Identification Form (A-2) and submit it to the G/T Teacher, who then forwards forms to the G/T Supervisor.

GRADES 3-6

WHO: New Jersey Administrative Code 6A:8-3.1 defines students who are gifted and talented as those students who possess or demonstrate high levels of ability in one or more content areas when compared to their chronological peers in the local district and who require modification of their educational program if they are to achieve in accordance with their capabilities.

- NJ Department of Education

HOW: Each year students will be identified using the criteria and guidelines. Students new to the district will be identified using information from their permanent records or a district screening.

- Grade 3 – Identification based on Link-it (Advanced Proficient in Math), CogAT, a score of 36 or higher on the Accelerated Program Identification form and a final report card that reflects working beyond the established benchmarks.
- Grade 4 – Identification process for gifted and talented students includes multiple measures which include, but are not limited to: Link-it (Advanced Proficient in Math) and/or in G/T previous year. In addition, a final report card that reflects working beyond the established benchmarks.
- Grade 5 – Identification process for gifted and talented students includes multiple measures which include, but are not limited to, achievement test scores (NJSLA), classroom grades and student’s performance or products. In addition, a final report card grade of “A” in Reading/Language Arts, Spelling, Mathematics, Science and Social Studies.

- Grade 6 – Identification process for gifted and talented students includes multiple measures which include, but are not limited to, achievement test scores, (NJSLA), classroom grades and student’s performance or products. In addition, a final report card grade of “A” in Reading/Language Arts, Spelling, Mathematics, Science and Social Studies.

WHEN: In the fall of each year, parents will be informed of their child’s eligibility for the Program.

Once a parent receives the notification, he/she must return the permission slip in order for the student to participate in the Program.

CONTINUATION CRITERIA

In order for a student to remain in the Gifted and Talented Program during a given school year, the following criteria must be met:

- Maintain Academic Excellence in all subject areas
- Demonstrate task commitment during G/T Program sessions as well as in the classroom
- Produce quality written work and projects
- Demonstrate initiative, preparedness, and timeliness in completion of G/T Program assignments
- Appropriately utilize independent work/study time during G/T sessions.

PLEASE NOTE: Once students are selected for participation, continuation for the following year will not be automatic. The student must meet the selection criteria each year in order to be identified as accelerated and to participate in the Gifted and Talented Program.

Students who do not maintain the given criteria during the academic year will be placed on probation from the Program until an improvement in all deficient areas is achieved. A student can re-enter the Program when criteria and standards are met.

GRADES 7-8

WHO: Students in Honors classes are considered the Rahway 7th and 8th Grade Academy’s Gifted and Talented Program. It is open to students who have the desire and ability to go beyond the regular curriculum.

WHEN: During the summer, students are selected using the honors criteria for each academic subject offered.

HOW: Criteria for entrance into the Honors classes:

- Academic final grades equivalent to A or B in English and Mathematics.

- Cutoffs will be determined each year based upon student performance on the NJ ASK in Language Arts Literacy and Mathematics, with 250 in either Language Arts Literacy or Mathematics being the minimum.
- After the first marking period, a student may be removed from an Honors class if an A or B is not maintained. Beyond the first marking period, a student will not be removed and will continue through June.
- By the end of the year, if a final grade is not an A or B, through consultation with the teacher, guidance counselor, principal and parent, the student may not be placed in Honors the following year.

MULTIPLE MEASURES

HONORS CLASSES:

Students who have academic grades equivalent to “A” or “B” and State assessment results are eligible for the Program.

JOHNS HOPKINS:

Students with Advanced Proficiency in Mathematics on grade level NJSLA assessments will be eligible to take the Scholastic Aptitude Test (SAT) in Grades 7 and 8.

NEW JERSEY MATH LEAGUE:

Student participation is based on State assessment results, Mathematics academic grade, and teacher recommendation.

UNION COUNTY TEEN ARTS FESTIVAL:

Teacher recommendation based on assessment of specific talent areas: musical talent (instrumental), musical talent (vocal), artistic talent, dance, creative writing, and dramatic talent.

INSTRUMENTAL BAND AND STRINGS:

Students must show a skill in playing an instrument, knowledge of reading music, and teacher recommendation.

CHORUS

Student participation is based on self-nomination and attendance at rehearsals and performances.

SCHOOL PLAY

Student participation is based on dramatic ability and the audition process.

GRADES 9-12

Students in Grades 9-12 are able to develop their own course of study and schedule classes with the assistance of their guidance counselor and parents/guardians.

Before entering and while attending high school, it will be necessary for students to make some important decisions relative to their educational future. This will require projecting themselves to the not too distant future to determine how they intend to apply their high school education. It is important, therefore, that the courses selected should meet the following criteria:

- sufficient credits to meet requirements for graduation;
- all requirements in course selection are met to fulfill State and Board of Education mandated subjects;
- programs of study are selected that will satisfy college entrance requirements;
- inclusion of courses that provide enrichment toward a more balanced social and emotion education.

Every effort should be made by the students to review any changes that may affect their future direction in life during their high school career. Consultation with their high school counselor is important.

APPEAL PROCESS

GRADES K-6

The criteria for selection for students entering the Gifted and Talented Program is through committee process. It is both equitable and objective. The identification of students, as described on preceding pages, is based on test results and their abilities as listed at each level.

If a student is not identified through the criteria, a parent/guardian may appeal as follows:

- send a letter to the building principal stating reasons why your child should participate in the Program;
- contact the Supervisor of the Gifted and Talented Program;
- appeal to the District Superintendent.

GRADES 7-8

If a student is not identified for participation in Honors classes through the established identification process and criteria, a parent/guardian may appeal as follows:

- send a letter to the building principal stating reasons why your child should participate in the Program;
- contact the Supervisor of the Gifted and Talented Program;
- appeal to the District Superintendent.

GRADES 9-12

Once courses are selected, exceptions may be considered. Before a change in schedule is considered, the student must provide a parent/guardian request, counselor approval, department supervisor and/or principal approval.

STUDENT ADVANTAGES OF A GIFTED AND TALENTED PROGRAM

GRADES 3-6

Students receive a concentrated block of time on a regular basis; individualized instruction in a small group setting, interaction with other gifted and talented children, and instruction in content, high level thinking skills, problem solving, and technology.

GRADES 7-8

Honors Classes – Students receive accelerated instruction in major subject areas, enrichment activities, and advanced studies encompassing designated disciplines.

GRADES 9-12

Honors Program and Advanced Placement Courses – Students have the opportunity to receive weighted grade points in the ranking procedure to determine class rank, and possible membership and recognition by the National Honor Society. Students receive better preparation for the Scholastic Aptitude Test, have an opportunity to take Advanced Placement exams administered by Educational Testing Service, in addition to the possibility of early college acceptance, and possible dual credit opportunities.

EVALUATION

GRADES K-2

Teachers will periodically review work samples in students' folders.

GRADES 3-6

An "Individualized Student Bi-Annual Progress Report" will be completed for parents and guardians by the G/T teacher based upon student achievement, commitment and initiative at the end of the second and fourth marking periods.

GRADES 7-8

To maintain Honors class status, a student must earn a score of Advanced Proficient on their current NJSLA assessment and maintain an "A" or "B" average in the academic subject.\

GRADES 9-12

In order to continue in the Honors and Advance Placement Courses, along with consultation from the guidance department, prerequisites, and grades, course requirements must be maintained.

APPENDICES

The Difference Between . . .

Please note the difference between a bright child and a gifted child before nominating students.

BRIGHT CHILD

Knows the answers
 Is interested
 Is attentive
 Has good ideas
 Works hard
 Answers the questions
 Top group
 Listens with interest
 Learns with ease
 6-8 repetitions for mastery
 Understands ideas
 Enjoys peers
 Grasps the meaning
 Completes assignments
 Is receptive
 Copies accurately
 Enjoys school
 Absorbs information
 Technician
 Good memorizer
 Enjoys straightforward,
 sequential presentation
 Is alert
 Is pleased with own learning

GIFTED LEARNER

Asks the questions
 Is highly curious
 Is mentally and physically involved
 Has wild, silly ideas
 Plays around, yet tests well
 Discusses in detail, elaborates
 Beyond the group
 Shows strong feelings and opinions
 Already knows
 1-2 repetitions for mastery
 Constructs abstractions
 Prefers adults
 Draws inferences
 Initiates projects
 Is intense
 Creates a new design
 Enjoys learning
 Manipulates information
 Inventor
 Good guesser
 Thrives on complexity
 Is keenly observant
 Is highly self-critical

By Janice Szab

ACCELERATED/LEARNING CHARACTERISTICS CHECKLIST GRADES K-2

Student's Name _____ Grade/Teacher _____

Characteristics	Seldom/ Never	Occasionally	Considerably	Almost Always
1. Has unusually advanced vocabulary for age or grade level, uses terms in a meaningful way; has verbal behavior characterized by "richness" of expression, elaboration and fluency.				
2. Possesses a large storehouse of information about a variety of topics beyond the usual interests of youngsters his/her age.				
3. Has quick mastery and recall of factual information.				
4. Has rapid insight into cause-effect relationships; tries to discover the how and why of things; asks provocative questions (as distinct from informational or factual questions); wants to know what makes things "tick".				
5. Has a ready grasp of underlying principles and can quickly make valid generalizations about events, people and things.				
6. Is a keen and alert observer: usually "sees more" or "gets more" out of a story or film, etc., than others.				
7. Reads independently and comprehends above present grade level.				
8. Tries to understand complicated material by separating it into its respective parts; reasons things out for him/herself; sees logical and common sense answers.				
9. Is imaginative; expresses original, even zany ideas; displays a good deal of intellectual playfulness. Fantasizes, imagines, modifies.				
10. Has intense, often diverse self-directed interest.				
ADD COLUMN TOTALS				
MULTIPLY BY WEIGHT				
ADD WEIGHTED COLUMN TOTALS				

TOTAL (Maximum 40)

(36 points are required for identification)

Teacher

Completing Form: _____

School: _____ **Date:** _____

**ACCELERATED PROGRAM IDENTIFICATION
GRADES K-2**

SCHOOL: _____

DATE: _____

TEACHER: _____

GRADE: _____

STUDENT NAME	CHECKLIST SCORE

**RETURN APPENDIX A-2 TO
GIFTED AND TALENTED TEACHER
NO LATER THAN: _____**

GIFTED AND TALENTED PROGRAM BI-ANNUAL PROGRESS REPORT
GRADES 3-6

The Elementary Gifted and Talented Program serves students with high achievement, commitment and initiative. The Program provides the necessary supportive assistance to the student that enables him/her to develop the thinking skills, problem-solving skills, and research skills which are required to become an independent learner.

STUDENT'S NAME: _____ SCHOOL: _____ GRADE: _____

RATING SCALE: Y = Yes, almost always; O = Opportunity for Improvement; N = No, seldom or never

	2 nd Marking Period	4 th Marking Period
Student is currently receiving appropriate grades based on his/her academic ability in all subject areas		
Student displays a high level of self-motivation		
Student displays perseverance and commitment to a task		
Student displays creative and original ideas		
Student has the ability to concentrate and is not easily distracted		
Student works well independently		
Student displays an ability to work cooperatively with others in small group activity		
Student enjoys the challenge of difficult problems, assignments, issues, and materials		
Student is able to produce high quality projects		
Student is able to self-reflect on work completed		
Student shows marked facility with language; uses advanced vocabulary		
Student displays excellent written communication skills		
Student demonstrates organizational skills		
Student arrives prepared for class		
Student displays higher-level thinking skills, i.e., application, analysis, synthesis, and evaluation		
Student appears enthusiastic about life, enters into most activities with enthusiasm and whole-hearted participation		
Student is able and willing to work with others; can "give and take"; is sensitive to the needs and feelings of others; observes rules of social conduct		

2nd Marking Period Teacher Comments: _____

Parent Signature: _____

4th Marking Period Teacher Comments: _____
