The GATE7 curriculum reflects the theme of INDIVIDUALITY throughout the units covered during the year. Student choice is embedded in every unit to give students agency and voice in their learning, either through a choice of topic, product or learning style. Throughout the year of INDIVIDUALITY, GATE7 students examine their own lives as they develop as middle schoolers by setting new goals for themselves (Genius Hour & Individual Contests); discover individuals in our local history (History Fictionary: Finding the Past through Individuals in Primary Sources), and investigate individual characteristics through photography and scientific classification (Linnaeus and Taxonomies: Identifying Individual Characteristics). Students also are challenged by contests and competitions that stress individual strengths and personal creativity (Odyssey of the Mind, Photography Challenge and Scavenger Hunting).

G&T N.J.A.C. 6A:8 Standards and Assessment, N.J.S.A. 18A:35-35 Gifted and Talented Students Students who possess or demonstrate a high level of ability, in one or more content areas, when compared with their chronological peers in the local school district and who require modifications of their educational program if they are to achieve in accordance with their capabilities.

Curriculum Scope and Sequence			
Content Area	Gifted & Talented	Course Title/Grade Level:	GATE 7

	Topic/Unit Name	Suggested Pacing (Days/Weeks)
Topic/Unit #1	INDIVIDUALITY: Goal Setting/Team Building	September (1-2 weeks)
Topic/Unit #2	CHOICE: Genius Hour Projects	October, January, April (2-10 wks, concurrent with other units)
Topic/Unit #3	INDIVIDUALITY: Finding the Past through Individuals in Primary Sources	November-December (8-10 weeks)
Topic/Unit #4	CHOICE: Contests	January-February (8-10 weeks)

Topic/Unit #5	INDIVIDUALITY: Identifying Individual Characteristics and Creating Organizational Structures	March-April (8-10 weeks)
Topic/Unit #6	CHOICE: Applying Creativity to Odyssey	May-June (8-10 weeks)

Topic/Unit 1 Title	Goal Setting/Team Building	Approximate Pacing	1-2 weeks	
STANDARDS				
NAGC (G&T) NJSLS (Content)				

NAGC:-Gifted Education Programing Standards:

Standard 1: Learning and Development

- **1.1 Self-Understanding.** Students with gifts and talents demonstrate self-knowledge with respect to their interests, strengths, identities, and needs in socio-emotional development and intellectual, academic, creative leadership, and artistic domains.
- **1.2 Self-Understanding.** Students with gifts and talents possess a developmentally appropriate understanding of how they learn and grow; they recognize the influences of their beliefs, traditions, and values on their learning and behavior.
- **1.3. Self-Understanding.** Students with gifts and talents demonstrate understanding of and respect for similarities and differences between themselves and their peer group and others in the general population.
- **1.4. Awareness of Needs.** Students with gifts and talents access resources from the community to support cognitive and affective needs, including social interactions with others having similar interests and abilities or experiences, including same-age peers and mentors or experts.
- **1.5. Awareness of Needs.** Students' families and communities understand similarities and differences with respect to the development and characteristics of advanced and typical learners and support students with gifts and talents' needs.

Standard 2: Assessment

2.5. Learning Progress. Students self assess their learning progress.

Standard 4: Learning Environments

- **4.1. Personal Competence.** Students with gifts and talents demonstrate growth in personal competence and dispositions for exceptional academic and creative productivity. These include self-awareness, self-advocacy, self-efficacy, confidence, motivation, resilience, independence, curiosity, and risk taking.
- **4.2. Social Competence:** Students with gifts and talents develop social competence manifested in positive peer relationships and social interactions.
- **4.3. Responsibility and Leadership:** Students with gifts and talents demonstrate personal and social responsibility
- **4.4. Cultural Competence:** Students with gifts and talents value their own and others' language, heritage, and circumstance. They possess skills in communicating, teaming, and collaborating with diverse individuals and across diverse groups. They use positive strategies to address social issues, including discrimination and stereotyping.
- **4.5. Communication Competence:** Students with gifts and talents develop competence in interpersonal and technical communication skills. They demonstrate advanced oral and written skills and creative expression. They display fluency with technologies that support effective communication and are competent consumers of media and technology.

Standard 5: Programming

- **5.3. Career Pathways.** Students with gifts and talents create future career-oriented goals and identify talent development pathways to reach those goals.
- **5.4. Collaboration.** Students with gifts and talents are able to continuously advance their talent development and achieve their learning goals through regular collaboration among families, community members, advocates, and the school.
- **5.8. Evaluation of Programming and Services.** Students with gifts and talents have access to programming and services required for the development of their gifts and talents as a result of ongoing evaluation and program improvements.

Interdisciplinary Connections:

Students are encouraged to develop highly personalized, interdisciplinary goals that they will work to achieve through the skills and projects in the program. Interest surveys, peer discussions, strengths analyzers, and a study of multiple intelligences serve as a basis for identifying individual interests. Students then work collaboratively to identify and appreciate strengths and talents in others forming a support system. For example, a student who is interested in history and art can develop an independent project that combines their interests. As an advocate for students in the program, staff find and develop opportunities for students to pursue their goals while peers also provide a network of strengths and talents to draw from.

ACM/HCM/LGBTQ+M: Mentors and examples will include diversity, inclusivity and culturally responsive topics.

Computer Science and Design Thinking

- **8.2.8.ITH.1:** Explain how the development and use of technology influences economic, political, social, and cultural issues.
- **8.2.8.ITH.5:** Compare the impacts of a given technology on different societies, noting factors that may make a technology appropriate and sustainable in one society but not in another.

Career Readiness, Life Literacies, and Key Skills:

- **9.1.8.CR.2:** Compare various ways to give back through strengths, passions, goals, and other personal factors.
- **9.2.8.CAP.9:** Analyze how a variety of activities related to career preparation (e.g., volunteering, apprenticeships, structured learning experiences, dual enrollment, job search, scholarships) impacts postsecondary options.
- **9.4.8.Cl.4:** Explore the role of creativity and innovation in career pathways and industries.

UNIT/TOPIC ESSENTIAL QUESTIONS AND ENDURING OBJECTIVES/UNDERSTANDINGS

What gifts and talents do I have? What skills are needed to enhance my talents? How can I use my talents? What talents do I see in others? How can I share and collaborate with others?

People have different gifts and talents. People learn and solve problems in different ways. People can acquire new ways to to learn and solve problems.

STUDENT LEARNING OBJECTIVES		
Key Kn	nowledge	Process/Skills/Procedures/Application of Key Knowledge
Students will know: What gifts and talents are. What their individual gifts and talents are. That gifts and talents vary between individuals. How to identify skills needed to enhance their talents. How to set goals		Students will be able to: Identify multiple intelligences Identify their individual gifts and talents Identify gifts and talents in others Develop individual gifts and talents Set short term and long term goals Formulate a plan to work towards a goal
ASSESSMENT OF LEARNING		
Summative Assessment (Assessment at the end of the learning period)	Student portfolio Project Rubrics	
Formative Assessments (Ongoing assessments during the learning period to inform instruction)	Progress Log/Journal Student conferencing	
Alternative Assessments (Any learning activity or assessment that asks students to <i>perform</i> to demonstrate their knowledge, understanding and proficiency)	Student assessment choice is highly encouraged	

Benchmark Assessments

(used to establish baseline achievement data and measure progress towards grade level standards; given 2-3 X per year)

Interest Survey
Portfolio Review

RESOURCES

Core instructional materials:

GATE@BCMS Student Application Questions

Contest Classroom

Multiple Intelligences (Gardner): https://www.edutopia.org/multiple-intelligences-research

<u>Brainstorming Techniques</u>: https://blog.ed.ted.com/2017/03/10/how-to-lead-a-brainstorm-for-young-introverts-and-extroverts-too/

<u>SMART Goals</u>: https://www.mindtools.com/pages/article/smart-goals.htm One Word/Calm Intentions: https://blog.calm.com/calm-intentions-collection

Clifton Strengths Explorer for 10-14 year olds: https://www.strengths-explorer.com/home.aspx

Renzulli Learning: https://renzullilearning.com/

Supplemental materials:

Varied depending on student choice topics

Modifications for Learners

See appendix

Topic/Unit 2 Title	CHOICE: Genius Hour Projects	Approximate Pacing	4-10 weeks	
STANDARDS				
NAGC (G&T) NJSLS (Content)				

NAGC:-Gifted Education Programing Standards:

Standard 1: Learning and Development

- **1.1 Self-Understanding.** Students with gifts and talents demonstrate self-knowledge with respect to their interests, strengths, identities, and needs in socio-emotional development and intellectual, academic, creative leadership, and artistic domains.
- **1.4. Awareness of Needs.** Students with gifts and talents access resources from the community to support cognitive and affective needs, including social interactions with others having similar interests and abilities or experiences, including same-age peers and mentors or experts.
- **1.5. Awareness of Needs.** Students' families and communities understand similarities and differences with respect to the development and characteristics of advanced and typical learners and support students with gifts and talents' needs.

Standard 2: Assessment

2.5. Learning Progress. Students self assess their learning progress.

Standard 3: Curriculum Planning & Development

- **3.1. Curriculum Planning:** Students with gifts and talents demonstrate academic growth commensurate with their abilities each school year.
- **3.2. Talent Development:** Students with gifts and talents demonstrate growth in social and emotional and psychosocial skills necessary for achievement in their domain(s) of talent and/or areas of interest.
- **3.3. Responsiveness to Diversity:** Students with gifts and talents develop knowledge and skills for living in and contributing to a diverse and global society.
- **3.4. Instructional Strategies:** Students with gifts and talents demonstrate their potential or level of achievement in their domain(s) of talent and/or areas of interest.
- 3.5. Instructional Strategies: Students with gifts and talents become independent investigators.
- **3.6. Resources:** Students with gifts and talents are able to demonstrate growth commensurate with their abilities as a result of access to high-quality curricular resources.

Standard 4: Learning Environments

- **4.1. Personal Competence.** Students with gifts and talents demonstrate growth in personal competence and dispositions for exceptional academic and creative productivity. These include self-awareness, self-advocacy, self-efficacy, confidence, motivation, resilience, independence, curiosity, and risk taking.
- **4.2. Social Competence:** Students with gifts and talents develop social competence manifested in positive peer relationships and social interactions.
- **4.3. Responsibility and Leadership:** Students with gifts and talents demonstrate personal and social responsibility
- **4.4. Cultural Competence:** Students with gifts and talents value their own and others' language, heritage, and circumstance. They possess skills in communicating, teaming, and collaborating with diverse individuals and across diverse groups. They use positive strategies to address social issues, including discrimination and stereotyping.
- **4.5. Communication Competence:** Students with gifts and talents develop competence in interpersonal and technical communication skills. They demonstrate advanced oral and written skills and creative expression. They display fluency with technologies that support effective communication and are competent consumers of media and technology.

Standard 5: Programming

- **5.3. Career Pathways.** Students with gifts and talents create future career-oriented goals and identify talent development pathways to reach those goals.
- **5.4. Collaboration.** Students with gifts and talents are able to continuously advance their talent development and achieve their learning goals through regular collaboration among families, community members, advocates, and the school.
- **5.8. Evaluation of Programming and Services.** Students with gifts and talents have access to programming and services required for the development of their gifts and talents as a result of ongoing evaluation and program improvements.

Interdisciplinary Connections:	Career Readiness, Life Literacies, and Key Skills:
Genius Hour projects are unique to each student's interests and connect to a variety of disciplinary areas. For example, students interested in scientific research who collect data on water quality might interview building staff, measure, test and graph information, be mentored by a scientist and present information to the principal, board of education or science contest. ACM/HCM/LGBTQ+M: Project examples will include diversity, inclusivity and culturally responsive topics.	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. 9.4.8.Cl.2: Repurpose an existing resource in an innovative way (e.g., 8.2.8.NT.3). 9.4.8.Cl.3: Examine challenges that may exist in the adoption of new ideas (e.g., 2.1.8.SSH, 6.1.8.CivicsPD.2).

Computer Science and Design Thinkin

- **8.1.8.DA.1:** Organize and transform data collected using computational tools to make it usable for a specific purpose.
- **8.2.8.ED.2:** Identify the steps in the design process that could be used to solve a problem.
- **8.2.8.ED.3:** Develop a proposal for a solution to a real-world problem that includes a model (e.g., physical prototype, graphical/technical sketch).
- **9.4.8.Cl.4:** Explore the role of creativity and innovation in career pathways and industries.
- **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 (e.g., MS-ETS1-2). **9.4.8.CT.2:** Develop multiple solutions to a problem and evaluate short- and long-term effects to determine the most plausible option (e.g., MS-ETS1-4, 6.1.8.CivicsDP.1).

UNIT/TOPIC ESSENTIAL QUESTIONS AND ENDURING OBJECTIVES/UNDERSTANDINGS

What am I interested in?

What do I already know about it?

What can I do to know more about it?

How can I act like a practicing professional in this field?

Learning is ongoing and lifelong no matter your age.

Impactful research, scholarship, or performance can happen at any age.

STUDENT LEARNING OBJECTIVES				
Key Knowledge Process/Skills/Procedures/Application of Key Knowledge				
Students will know: How to choose one topic of inte How to inventory what is alread How to act like a practicing prof	y known about the topic	Students will be able to: Choose a topic of interest Inventory what they know about the topic Act like a practicing professional		
ASSESSMENT OF LEARNING				
Summative Assessment (Assessment at the end of the	Final Product, Performance or Service demonstrating understanding and implementation of topic research			
learning period)	Peer Feedback Self Reflection			

earning period to inform fuction) rnative Assessments (Any ing activity or assessment asks students to perform to constrate their knowledge, erstanding and proficiency) chmark Assessments d to establish baseline	tudent conferencing tudent assessment choice is highly encouraged			
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d to establish baseline				
evement data and Int				
achievement data and Interest Survey				
sure progress towards Po	ortfolio Review			
e level standards; given				
(per year)				
RESOURCES				
instructional materials:				
Brainstorming Techniques				
Genius Hour, AJ Juliani				
Genius Hour, Chris Kesler				
Project management tools and online productivity software (GAfE)				
ne and hard copy research relat	ated to individual topics			
Mentors in topic areas				
Supplemental materials:				
ed per project				
	Modifications for Learners			
appendix				

Topic/Unit 3 Title	Title Primary Sources			
STANDARDS				
NAGC (G&T) NJSLS (Content)				
NA OO				

NAGC:

- **3.3. Responsiveness to Diversity.** Students with gifts and talents develop knowledge and skills for living in and contributing to a diverse and global society.
- **3.5. Instructional Strategies**. Students with gifts and talents become independent investigators.
- **4.5. Communication Competence.** Students with gifts and talents develop competence in interpersonal and technical communication skills. They demonstrate advanced oral and written skills and creative expression. They display fluency with technologies that support effective communication and are competent consumers of media and technology.
- **5.1. Comprehensiveness.** Students with gifts and talents demonstrate growth commensurate with their abilities in cognitive, social-emotional, and psychosocial areas as a result of comprehensive programming and services.

NJSLS:

- **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.R4**. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
- **NJSLSA.R5**. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.

NJSLSA.R6. Assess how point of view or purpose shapes the content and style 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.R9. Analyze and reflect on how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

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

RH.6-8.1. Cite specific textual evidence to support analysis of primary and secondary sources.

RH.6-8.2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.

RH.6-8.3. Identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).

RH.6-8.4. Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.

RH.6-8.5. Describe how a text presents information (e.g., sequentially, comparatively, causally).

RH.6-8.6. Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts). Integration of Knowledge and Ideas

RH.6-8.7. Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.

RH.6-8.8. Distinguish among fact, opinion, and reasoned judgment in a text.

RH.6-8.9. Analyze the relationship between a primary and secondary source on the same topic.

Interdisciplinary Connections:	Career Readiness, Life Literacies, and Key Skills:
Students are given a choice to identify an individual from the local community and research them through primary source documents including tombstones, census documents and other historical sources. Researching the past leads to a choice of creative writing or other display describing the life and times of an individual from the past with both factual and fictional details. Technology integration through online researching is included as well as multimedia skills in producing a piece about the individual.	 9.2.8.CAP.10: Evaluate how careers have evolved regionally, nationally, and globally. 9.4.8.CI.3: Examine challenges that may exist in the adoption of new ideas s (e.g., 2.1.8.SSH, 6.1.8.CivicsPD.2). 9.4.8.CI.4: Explore the role of creativity and innovation in career pathways and industries. 9.4.8.DC.1: Analyze the resource citations in online materials for proper use.

ACM/HCM/LGBTQ+M: Project examples will include diversity, inclusivity and culturally responsive topics.

Computer Science and Design Thinking

8.2.8.ITH.1: Explain how the development and use of technology influences economic, political, social, and cultural issues.

8.2.8.ITH.2: Compare how technologies have influenced society over time

- **9.4.8.DC.2:** Provide appropriate citation and attribution elements when creating media products (e.g., W.6.8).
- **9.4.8.IML.1**: Critically curate multiple resources to assess the credibility of sources when searching for information.
- **9.4.8.IML.2**: Identify specific examples of distortion, exaggeration, or misrepresentation of information.
- **9.4.8.IML.3:** Create a digital visualization that effectively communicates a data set using

formatting techniques such as form, position, size, color, movement, and spatial grouping (e.g., 6.SP.B.4, 7.SP.B.8b).

- **9.4.8.IML.4**: Ask insightful questions to organize different types of data and create meaningful visualizations.
- **9.4.8.IML.5**: Analyze and interpret local or public data sets to summarize and effectively communicate the data.
- **9.4.8.IML.7**: Use information from a variety of sources, contexts, disciplines, and cultures for a specific purpose (e.g., 1.2.8.C2a, 1.4.8.CR2a, 2.1.8.CHSS/IV.8.AI.1, W.5.8, 6.1.8.GeoSV.3.a, 6.1.8.CivicsDP.4.b, 7.1.NH. IPRET.8).
- **9.4.8.IML.9:** Distinguish between ethical and unethical uses of information and media (e.g., 1.5.8.CR3b, 8.2.8.EC.2).
- **9.4.8.IML.10:** Examine the consequences of the uses of media (e.g., RI.8.7).
- **9.4.8.IML.11:** Predict the personal and community impact of online and social media activities.
- **9.4.8.IML.12**: Use relevant tools to produce, publish, and deliver information supported with evidence for an authentic audience.
- **9.4.8.IML.13**: Identify the impact of the creator on the content, production, and delivery of information.

UNIT/TOPIC ESSENTIAL QUESTIONS AND ENDURING OBJECTIVES/UNDERSTANDINGS

How are individual records collected and shared?

How does a time period influence an individual?

How does a location impact an individual?

What makes elements of individuality difficult to document and preserve?

What makes an individual unique?

Individual histories can be revealed through primary source documents.

Humans respond and adapt to their environment and time period.

Some elements of individuality are difficult to quantify through documents.

STUDENT LEARNING OBJECTIVES				
Key Knowledge		Process/Skills/Procedures/Application of Key Knowledge		
Students will know: How to identify primary source documents. How to locate supporting secondary source documents. How to place an individual event in a continuum of historical events. How to present local, state and national historical information within an individual context.		Students will be able to: Read and interpret historical documents and records. Set events in historical context/timeline. Create a product that shows an individual in historical context.		
	ASSESSMENT OF LEARNING			
Summative Assessment (Assessment at the end of the learning period)	Final Product, Performance or Service demonstrating understanding and implementation of topic research Peer Feedback Self Reflection			
Formative Assessments (Ongoing assessments during the learning period to inform instruction)	Progress Log/Journal Student conferencing			
Alternative Assessments (Any learning activity or assessment that asks students to perform to demonstrate their knowledge, understanding and proficiency)	Student assessment choice is highly encouraged			
Benchmark Assessments (used to establish baseline achievement data and	Interest Survey Portfolio Review			

measure progress towards grade level standards; given 2-3 X per year)

RESOURCES

Core instructional materials:

Cemetery stone rubbings: https://www.findagrave.com/

US Census Records: https://www.archives.gov/research/genealogy/census/online-resources

Local historical records and research materials including but not limited to:

https://www.ancestry.com/ http://www.familysearch.org/

https://www.libertyellisfoundation.org/

https://sclsnj.org/research-learn/local-history-genealogy/ State and national history (political, social, economic,etc)

https://www.wdl.org/en/sets/us-history/timeline/

http://www.loc.gov/teachers/classroommaterials/presentationsandactivities/presentations/timeline/

Supplemental materials:

Varied depending on time period and topic for each individual student/project.

Modifications for Learners

See appendix

Topic/Unit 4 Title	CHOICE: Contests	Approximate Pacing	8-10 weeks	
STANDARDS				
NAGC (G&T) NJSLS (Content)				

NAGC:-Gifted Education Programing Standards:

- 3.1. Curriculum Planning: Students with gifts and talents demonstrate academic growth commensurate with their abilities each school year.
- **3.2. Talent Development:** Students with gifts and talents demonstrate growth in social and emotional and psychosocial skills necessary for achievement in their domain(s) of talent and/or areas of interest.
- **3.3. Responsiveness to Diversity:** Students with gifts and talents develop knowledge and skills for living in and contributing to a diverse and global society.
- **3.4. Instructional Strategies:** Students with gifts and talents demonstrate their potential or level of achievement in their domain(s) of talent and/or areas of interest.
- **3.5. Instructional Strategies:** Students with gifts and talents become independent investigators.
- **3.6. Resources:** Students with gifts and talents are able to demonstrate growth commensurate with their abilities as a result of access to high-quality curricular resources.
- **5.3. Career Pathways:** Students with gifts and talents create future career-oriented goals and identify talent development pathways to reach those goals.
- **5.4. Collaboration:** Students with gifts and talents are able to continuously advance their talent development and achieve their learning goals through regular collaboration among families, community members, advocates, and the school.

Interdisciplinary Connections:	Career Readiness, Life Literacies, and Key Skills:
Contest choices are unique to each student's interests in disciplinary areas. For example, students interested in geography may prepare for the National Geography Bee; linguistics may prepare for the Scripps National Spelling Bee; history may prepare for National History Day; art may prepare for Google4Doodle, Teen Arts or other art contests; journalism may prepare for C-SPAN StudentCam; science may prepare for 3M Young Scientist Lab, Lexus EcoChallenge or other science	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. 9.4.8.CT.1: Evaluate diverse solutions proposed by a variety of individuals, organizations, and/or agencies to a local or global

contests; computer science may prepare for CyberPatriot YCDC or a hackathon.

ACM/HCM/LGBTQ+M: Examples for each type of contest will include a wide range of diversity, inclusivity and culturally responsive topics. Contests will also be selected based on diversity, inclusivity and culturally responsiveness.

problem, such as climate change, and use critical thinking skills to predict which one(s) are likely to be effective (e.g., MS-ETS1-2).

9.4.8.CT.2: Develop multiple solutions to a problem and evaluate short- and long-term effects to determine the most plausible option

Computer Science and Design Thinking

For some contests:

8.2.8.NT.3: Examine a system, consider how each part relates to other parts, and redesign it for another purpose.

8.2.8.NT.4: Explain how a product designed for a specific demand was modified to meet a new demand and led to a new product.

8.2.8.ETW.1: Illustrate how a product is upcycled into a new product and analyze the short- and long-term benefits and costs.

8.2.8.ETW.2: Analyze the impact of modifying resources in a product or system (e.g., materials, energy, information, time, tools, people, capital).

UNIT/TOPIC ESSENTIAL QUESTIONS AND ENDURING OBJECTIVES/UNDERSTANDINGS

What am I interested in?

What do I already know about it?

How can I learn more and show my knowledge in a local, state or national forum?

Learning is ongoing and transcends local boundaries.

Estating to origining the transcortes local boundaries.		
STUDENT LEARNING OBJECTIVES		
Key Knowledge Process/Skills/Procedures/Application of Key Knowledge		
Students will know: Students will be able to:		
How to choose one topic of interest Choose a topic of interest		
How to inventory what is already known about the topic Inventory what they know about the topic		
How to act like a practicing professional in the field		

ASSESSMENT OF LEARNING		
Summative Assessment	Final Contest participation	
(Assessment at the end of the	Peer Feedback	
learning period)	Self Reflection	
Formative Assessments		
(Ongoing assessments during	Progress Log/Journal	
the learning period to inform	Student conferencing	
instruction)		
Alternative Assessments (Any		
learning activity or assessment		
that asks students to <i>perform</i> to	Student choice is highly encouraged	
demonstrate their knowledge,		
understanding and proficiency)		
Benchmark Assessments		
(used to establish baseline		
achievement data and	Interest Survey	
measure progress towards	Portfolio Review	
grade level standards; given		
2-3 X per year)		
RESOURCES		

Core instructional materials:

Contest rules/registrations including but not limited to:

National Geography Bee

Scripps National Spelling Bee

National Mythology Exam

Lexus EcoChallenge

AMC8 & **AMTNJ** math contests

Doodle4Google

C-SPAN Student Cam

CyberPatriot

Content materials specific to theme or topic

Organizational tools

Supplemental materials: Varied depending on topic		
	Modifications for Learners	
See appendix		

Topic/Unit 5 Title	INDIVIDUALITY: Identifying Individual Characteristics and Creating Organizational Structures	Approximate Pacing	8-10 weeks	
STANDARDS				
NAGC (G&T) NJSLS (Content)				
NUCLO:	·			

NJSLS:

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.R4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.

NJSLSA.R5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.

NJSLSA.R6. Assess how point of view or purpose shapes the content and style 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.R9. Analyze and reflect on how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

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

- RH.6-8.1. Cite specific textual evidence to support analysis of primary and secondary sources.
- **RH.6-8.2**. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.
- **RH.6-8.3**. Identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).
- **RH.6-8.4.** Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.
- RH.6-8.5. Describe how a text presents information (e.g., sequentially, comparatively, causally).
- **RH.6-8.6**. Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts). Integration of Knowledge and Ideas
- RH.6-8.7. Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.
- RH.6-8.8. Distinguish among fact, opinion, and reasoned judgment in a text.
- **RH.6-8.9**. Analyze the relationship between a primary and secondary source on the same topic.

Interdisciplinary Connections:	Career Readiness, Life Literacies, and Key Skills:
Students identify individual wonders in the state or local community or simple objects that occur with slight variations. They conduct research including data collection and photography of samples. Cataloging samples leads them to create an organizational system and discussion of the Linnaean classification system. Students will then build a digital system to organize the information that includes an online, interactive component.	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 (e.g., MS-ETS1-2). 9.4.8.CT.2: Develop multiple solutions to a problem and evaluate short- and long-term effects to determine the most plausible option. 9.4.8.IML.3: Create a digital visualization that effectively communicates a data set using formatting techniques such as form,
ACM/HCM/LGBTQ+M: Examples will include diversity, inclusivity and culturally responsive topics.	position, size, color, movement, and spatial grouping (e.g., 6.SP.B.4, 7.SP.B.8b).

Computer	Science	and	Design	Thinking
Compater	CCICIICC	ana	Design	111111111111111111111111111111111111111

- **8.1.8.DA.1:** Organize and transform data collected using computational tools to make it usable for a specific purpose.
- **8.1.8.DA.5:** Test, analyze, and refine computational models.
- **8.1.8.AP.1**: Design and illustrate algorithms that solve complex problems using flowcharts and/or pseudocode.
- **8.2.8.ED.1**: Evaluate the function, value, and aesthetics of a technological product or system, from the perspective of the user and the producer.
- **8.2.8.ED.2**: Identify the steps in the design process that could be used to solve a problem.
- **8.2.8.ED.7**: Design a product to address a real-world problem and document the iterative design process, including decisions made as a result of specific constraints and trade-offs.

- **9.4.8.IML.4**: Ask insightful questions to organize different types of data and create meaningful visualizations.
- **9.4.8.IML.12**: Use relevant tools to produce, publish, and deliver information supported with evidence for an authentic audience.
- **9.4.8.TL.1:** Construct a spreadsheet in order to analyze multiple data sets, identify relationships, and facilitate data-based decision-making.
- **9.4.8.TL.2:** Gather data and digitally represent information to communicate a real-world problem (e.g., MS-ESS3-4,
- 6.1.8.EconET.1, 6.1.8.CivicsPR.4).
- **9.4.8.TL.3:** Select appropriate tools to organize and present information digitally.
- **9.4.8.TL.4:** Synthesize and publish information about a local or global issue or event (e.g., MSLS4-5, 6.1.8.CivicsPI.3).

UNIT/TOPIC ESSENTIAL QUESTIONS AND ENDURING OBJECTIVES/UNDERSTANDINGS

What defines an individual?

What characteristics are used to differentiate individuals?

How do organizations use individuality in their structures?

Individuality is important.

Individuals create organizations and structures.

Diversity is valued in organizations.

STUDENT LEARNING OBJECTIVES			
Key Knowledge Process/Skills/Procedures/Application of Key Knowledge			
Students will know:	Students will be able to:		
How to collect samples.	Collect individual data samples for their project.		
How to catalog data.	Organize sample information with a flow chart.		
How to document with photographic evidence.	Prepare, shoot and transfer digital photographs.		

How to create a website or other digital platform for web sharing.		Plan, build and create a website or other digital platform. Use logic statements and links to create an interactive choice system to identify individual samples.	
	ASSESSMENT OF LEARNING		
Summative Assessment	Final Digital Platform demonstrati	Final Digital Platform demonstrating understanding and implementation of topic research.	
(Assessment at the end of the	Peer Feedback		
learning period)	Self Reflection		
Formative Assessments			
(Ongoing assessments during	Progress Log/Journal		
the learning period to inform	Student conferencing		
instruction)			
Alternative Assessments (Any			
learning activity or assessment			
that asks students to <i>perform</i> to	Student assessment choice is hig	hly encouraged	
demonstrate their knowledge,			
understanding and proficiency)			
Benchmark Assessments			
(used to establish baseline			
achievement data and	Interest Survey		
measure progress towards	Portfolio Review		
grade level standards; given			
2-3 X per year)			
RESOURCES			

Core instructional materials:

Seven Wonders of the World samples and organizing bodies, including but not limited to:

7 Ancient Wonders of the World: https://www.history.com/topics/ancient-history/sevens-wonders-of-the-ancient-world

New 7 Wonders of the World: https://www.britannica.com/list/new-seven-wonders-of-the-world

7 Modern Architectural Wonders of the World: https://www.tandfonline.com/doi/abs/10.1080/00119253.1958.10743934

or https://www.theglobeandmail.com/life/seven-wonders-of-the-world-architecture/article1099833/

7 Wonders of Britain: https://www.atlasobscura.com/articles/lost-wonders-of-medieval-britain

Linnaean Classification system and Systema Naturae: https://www.youtube.com/watch?v=kVD6PP61A28

Website design platform (Google Sites, Wix.com, etc)

Digital editing tools, Project management tools and online productivity software (GAfE)

Supplemental materials:
Varied depending on student selected topics.

Modifications for Learners

See appendix

Topic/Unit 6 Title	CHOICE: Applying Creativity	Approximate Pacing	8-10 weeks	
STANDARDS				
NAGC (G&T) NJSLS (Content)				

NAGC:-Gifted Education Programing Standards:

- 3.1. Curriculum Planning: Students with gifts and talents demonstrate academic growth commensurate with their abilities each school year.
- **3.2. Talent Development:** Students with gifts and talents demonstrate growth in social and emotional and psychosocial skills necessary for achievement in their domain(s) of talent and/or areas of interest.
- **3.3. Responsiveness to Diversity:** Students with gifts and talents develop knowledge and skills for living in and contributing to a diverse and global society.
- **3.4. Instructional Strategies:** Students with gifts and talents demonstrate their potential or level of achievement in their domain(s) of talent and/or areas of interest.
- 3.5. Instructional Strategies: Students with gifts and talents become independent investigators.

3.6. Resources: Students with gifts and talents are able to demonstrate growth commensurate with their abilities as a result of access to high-quality curricular resources.

<u> </u>		
Interdisciplinary Connections:	Career Readiness, Life Literacies, and Key Skills:	
Small groups of students will create solutions to unique situations. Collaboration, independence, problem-solving, resourcefulness and risk-taking skills are needed by all students to create hands-on solutions. For example, students may choose to create a balsa wood structure that supports weight given a set of parameters, or they may choose to create a skit about a famous mentor who advises them in creating a new food product. Flexible, fluent thinking is encouraged to connect ideas from multiple disciplines in creative problem solving. ACM/HCM/LGBTQ+M: Examples will include diversity, inclusivity and culturally responsive topics.	 9.4.8.CI.2: Repurpose an existing resource in an innovative way 9.4.8.CI.3: Examine challenges that may exist in the adoption of new ideas 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. 9.4.8.CT.2: Develop multiple solutions to a problem and evaluate short- and long-term effects to determine the most plausible option 9.4.8.GCA.2: Demonstrate openness to diverse ideas and perspectives through active discussions to achieve a group goal 	
Computer Science and Design Thinking		
 8.2.8.ED.2: Identify the steps in the design process that could be used to solve a problem. 8.2.8.ED.3: Develop a proposal for a solution to a real-world problem that includes a model (e.g., physical prototype, graphical/technical sketch). 8.2.8.ED.5: Explain the need for optimization in a design process. 8.2.8.ED.6: Analyze how trade-offs can impact the design of a product. 8.2.8.ED.7: Design a product to address a real-world problem and document the iterative design process, including decisions made as a result of specific constraints and trade-offs (e.g., annotated sketches). 		

UNIT/TOPIC ESSENTIAL QUESTIONS AND ENDURING OBJECTIVES/UNDERSTANDINGS

Applying creative thinking generates multiple solutions to a problem.

Multiple solutions should be examined before selecting an answer to a problem.

The most obvious answer is not always the best answer.

Not every creative answer is successful, but more creativity leads to more choices for solutions.

	STUDENT LEARN	IING OBJECTIVES
Key Knowledge		Process/Skills/Procedures/Application of Key Knowledge
Students will know: How to generate multiple ideas to encourage creative thinking.		Students will be able to: Create a solution to a given problem with given parameters.
Apply knowledge from a variety of disciplines to specific problems.		Use background knowledge from all subjects to create a unique solution.
	ASSESSMENT	OF LEARNING
Summative Assessment (Assessment at the end of the learning period)	Final Product or Performance demonstrating creative thinking. Peer Feedback Self Reflection	
Formative Assessments (Ongoing assessments during the learning period to inform instruction)	Progress Log/Journal Student conferencing	
Alternative Assessments (Any learning activity or assessment that asks students to <i>perform</i> to demonstrate their knowledge, understanding and proficiency)	Student assessment choice is highly encouraged	
Benchmark Assessments (used to establish baseline achievement data and measure progress towards grade level standards; given 2-3 X per year)	Interest Survey Portfolio Review	
2077 9047	RESO	URCES

Odyssey of the Mind problems: https://www.odysseyofthemind.com/

Brainstorming 101: https://blog.ed.ted.com/2017/03/10/how-to-lead-a-brainstorm-for-young-introverts-and-extroverts-too/
Project management tools and online productivity software (GAfE): https://edu.google.com/products/gsuite-for-education/
Supplemental materials:
Varied raw materials for construction

Modifications for Learners

See appendix