# Gifted and Talented K-8

# CURRICULUM GUIDE Approved July 2017

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This curriculum may be modified through varying techniques, strategies and materials, as per an individual student's Individualized Education Plan (IEP).

Approved by the Great Meadows Regional School District Board of Education

At the regular meeting held July 18, 2017

And

Aligned with the New Jersey Student Learning Standards

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# **Philosophy and Rationale**

Gifted children demonstrate the following:

- High intelligence
- Verbal or mathematical acuity
- Creativity
- Exceptional talent and skill in the fine arts
- Leadership

These children also have a specific set of emotional needs that must be fostered by our educational system:

- To feel empowered with their innate ability and potential
- Desire to be challenged intellectually
- To be honored and accepted for their individuality

There exists a common conception that Advanced Placement and Honors courses at the high school level sufficiently address the needs of gifted and talented students.

Hackettstown High School gifted and talented students are fortunate to be provided with a plethora of learning experiences to meet their unique needs. The following choices are available for the most advanced students:

- A.P. Courses
- Honors Courses
- Independent Studies
- Dual Enrollment Courses
- Centenary College Courses
- Virtual High School
- Gifted and Talented Seminars

An environment that inspires learning, creates community, honors uniqueness, hones and develops specific areas of strength, provides a comfort of "place" essential to centering is necessary, as is the facilitator who honors and respects these attributes.

# **Scope and Sequence**

Grade K-2 Enrichment Cycl	e:
---------------------------	----

Kindergarten	60 days
1 <sup>st</sup> Grade	60 days
2 <sup>nd</sup> Grade	60 days

# Grade 2:

Komodo Dragon 60 days

# Grade 3:

All about Wolves 60 days Learning Through Art 30 days Problem Solving 30 days

# **Grade 4: Inventors and Inventions**

Let's Invent 60 days Problem Solving 30 days

## Grade 5:

Problem Solving 27-45 days

# Grade 6:

Problem Solving 27-45 days
Create-A-Culture 45 days

# Grade 7:

The World According to Ben
28-30 days
History's Gadgets & Gizmos
10 days
American Folk Art
45 days

# Grade 8: Create a Business

Capitalism and the Entrepreneurial Spirit 80 days

# Grade 5-8:

Discovery! Workshops 2-4 weeks

# **Mission Statement**

The mission of this program is to provide our district's identified gifted youth with an environment that inspires learning, fosters creativity, models respectful community and encourages self-reflection. The Great Meadows Regional School District has made a commitment to these children by offering an extensive program for gifted students.

# **Program Goals**

The Great Meadows Regional District provides extensive programs for the development and enrichment of students in grades K-8. Students exhibiting gifted behavior are identified in the areas of general intelligence, specific academic ability, creative thinking, leadership ability, and exceptional talent in the arts. The program goals are as follows:

- Students will demonstrate higher level thinking processes.
- Through the completion of units of study and independent investigations, students will expand their areas of knowledge and interest.
- Students will demonstrate the ability to access, organize, process and communicate information.
- Through grade level meetings, field trips and other opportunities for peer interaction, students will recognize their own unique potential.
- Students will develop self-understanding, i.e., the recognition and use of abilities to become self-directed, appreciating similarities and differences between themselves and others.

# **Programs**

# **Project STEP:**

Project STEP is an enrichment program that encourages higher level thinking skills, critical and creative problem solving, and meaningful learning beyond the standard curriculum for those students identified as academically advanced. STEP consists of the following components:

- **Development of Thinking Skills** students will develop higher level thinking processes through involvement in activities which include problem solving, fluency, flexibility, originality, elaboration, logic, reasoning, decision making and critical thinking.
- Academic Investigations students will broaden their interests, knowledge, and experiences by completion of academic investigations which are broad based, interdisciplinary and incorporate higher level thinking skills into content areas. These units are developed using the content, process, product model and Understanding by Design.
- **Independent Study** using research skills to locate, gather, organize, process and communicate information, students will select an area of interest from a list of sub-topics based on the theme of the academic investigation and synthesize their knowledge into a final product.
- **Peer Interaction** through grade level meetings, multi grade level meetings and field trips, students in STEP will meet to share ideas, experiences, concerns and problems. In addition, students will present their final products and research findings with students in the regular classroom.

# **Focus Reading and Focus Math Programs:**

Specialized programs are provided for students in grades K, 1 and 2 who demonstrate accelerated thinking and ability in the areas of literature and mathematics. These classes promote critical thinking, problem solving, character analysis, synthesizing information and creative writing.

# Let's Explore:

Students participating in Let's Explore are encouraged to reflect and respond to these supplemental enrichment activities to further strengthen their identified creativity or area of leadership. Let's Explore consists of the following components:

- Creativity
- Abstract and Advanced Thinking
- Creative Problem Solving
- Leadership
- Interpersonal and Intrapersonal Intelligences

# **Grade Acceleration:**

Grade skipping involves advancing a child from their current grade level to a higher grade. This practice is implemented under special circumstances and only after a review by the principal, classroom teacher, gifted and talented teacher, child study team member and parent.

# **CTE** (Critical Thinking Enrichment):

A critical thinking skills program is provided for all children in grades K-2 using the six day cycle schedule. These forty-five minute lessons encourage children to explore relationships and patterns, classify, compare and contrast information, identify problems, express opinions, sequence ideas, interpret data and draw conclusions. All children participate through hands-on activities, which build an atmosphere of excitement and confidence allowing them to experience success. These problem solving activities are diversified to meet the needs of all learning styles and ability levels.

# **Discovery Workshops:**

Workshops are offered to students in grades three and four on a weekly basis. These programs are designed to provide experiences that recognize learning styles, interests and abilities of all children. Participation is voluntary and all activities occur before school, after school, or during recess. Sample activities are: book club, chess club, build the tallest Oreo cookie tower, drama club, Quest Atlantis, poetry club, float your boat challenge and Zometool structures.

# Identification of Gifted and Talented Students K – 4 <u>Program Nomination, Assessment and Placement</u>

# **Nomination**

The purpose for the nomination process is to identify potentially gifted and talented students. These students are nominated through academic performance, screening assessments, work samples, parental, teacher and professional nominations.

# **Assessment**

Information on students identified as potentially gifted and talented will be collected at the end of grade 2 using:

- Existing test data
- Administration of the SAGES, CogAT or GATES Assessment
- Teacher observation
- Samples of student work

# **Placement**

All students nominated will be reviewed using district approved criteria. When a student has been selected to participate in the gifted and talented program, parents will be notified of inclusion.

# **Program Continuation**

A child's continued participation shall be evaluated throughout the year. Involvement is based on student academic achievement, standardized tests scores, and or administrative recommendation. All students are monitored for continued inclusion.

# Gifted and Talented Program Teacher Recommendation Screening Form

of the ax			~ .			
Child's Name:						
School:			Date: _			
Teacher/Team completing form:						
How long have you known this child?						
Please return to			by			
Please rate the student on a scale of 5 to 0 by circ	cling one ra	ting	for each de	efine	ed topic.	
(5 being the highest, 1 being the lowest, 0 no						for your
thoughtful cooperation.	11		J			J
moughtur cooperation.					То а	Not
Teacher Observations	To a great				limited	appli-
Teacher Observations	extent		Somewhat		extent	cable
	5	4	3	2	1	0
Motivation and Task Commitment:						
Rapidly accelerates learning after onset.						
Keeps at issue until it makes sense.						
Asks penetrating and provocative questions.						
Is curious; asks how, why and what if.						
Displays unexpected depth of knowledge in one or more areas.  Remember! (Large storehouse of info. About a variety of topics.)						
Accelerated task commitment and energy when learning.						
Wants to do things on own; independent.						
Usually bored with routine tasks; enjoys challenges.						
Critical Thinking:						
Analyzes classroom tasks; sees logical and common sense answers.						
Is usually attentive to details in environment.						
Sees cause and effect relationships.						
Takes apart and reassembles thing and/or ideas with unusual skill. Expresses relationships between events, people, or experiences.						
Quickly grasps underlying principles and makes valid						
generalizations.						
Keen and alert observer (sees more and gets more out of stories,						
films, etc.)						
Organizes collections of things.						
Creativity:						
Generates a large number of ideas or solutions to problems.						
Manipulates, adapts, modified, or elaborates on an idea.  Offers original, unusual, unique, "way out" or clever responses.						
Is a risk taker; is nonconforming, uninhibited, tenacious.						
Demonstrates unexpected perspective, angle, dimension, etc. in art.						
Creates interesting shapes or patterns.						
Makes up or expands games, songs, skits, or stories.						
"Plays with" or manipulates ideas; goes off on tangents, imagines "what if."						
Sense of Humor:						
Says or does something indicating a finely developed sense of humor.						
Catches and adult's subtle humor.						
Uses figurative language for humorous effect.						
Understands and uses puns and riddles.						
"Plays" with language.						

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Sensitivity:				
Sees another's point of views.				
Spontaneously takes action to help someone in need.				
Shows non-verbal awareness of other's needs.				
Uses empathic statements.				
Unusual sensitivity to emotions, beauty, or aesthetics.				
Has a strong sense of justice; often passes judgment.				
Has high expectations of self and others.				
Advanced awareness of societal problems/issues.				
Strives toward perfection; is self critical.				
Advanced Mathematical Reasoning:				
Comprehends abstract concepts beyond age peers.				
Categorizes by more than one attribute.				
Has unusual ability to comprehend symbols				
(music, numeral, alphabet, or maps.)				
Understands the relationships between numbers and how to use them				
in a variety of ways (e.g. patterns, operations).				
Develops original strategies or approaches to problem solving.				
Advanced understanding of time or money concepts.				
Advanced Reading and Language:				
Unassumingly uses multi-syllable words. Asks questions about words (in print or oral language).				
Uses similes, metaphors, or analogies.				
Modifies language for less mature children.				
Uses language to teach other children.				
Uses verbal skills to handle conflicts or to influence behavior of				
others.				
Expresses similarities and differences between unrelated objects.				
Reads consecutive passages at an advanced reading level and				
explains meaning of what is read.				
Reads a great deal on own; prefers adult level books; doesn't avoid				
difficult material; may prefer biographies, encyclopedias, or atlases.				
Adaptability:				
Shines despite problems, frustration or obstacles in one's life.				
Thrives in all environments.				
Sees and applies every day materials in new and innovative ways.				
Is knowledgeable about things which others are unaware.				
Moves effortlessly from one situation to the next.				
1.10 to off officery from one situation to the next.				

# GREAT MEADOWS REGIONAL SCHOOLS Gifted/Talented/Creative Education Tool for Inclusion

# STEP (Grades 3-8)

**Selection Criteria**: The minimum score necessary for inclusion in STEP is 95. Any student scoring at 97% or higher on a standardized math or reading test may be recommended for Teacher Recommendation Screening Form, and administered the SAGES -2 test or CogAT.

Instrument		Score
Standardized test: Reading 9	%	
Standardized test: Math %		
Teacher Recommendation So (Raw Score x 2.5)	creening	
SAGES -2 test or CogAT(Co	onvert quotient to percentile)	
	Total Raw Score	
	Final Score (Total Raw Score/4)	

# GREAT MEADOWS REGIONAL SCHOOLS Gifted/Talented/Creative Education

# **STEP**

Dear,		
academically advanced students students for approximately nine	s at ety to one hundred twenty me e responsible for work assig	rticipate in STEP, a program for I will be meeting with ninutes per week. The students ned during the regular class. I have on.
Students will be evaluated throu continuation is warranted.	aghout the year and at the c	onclusion of each year to determine if
We have evaluated the ability a functioning in this program.	nd performance of your chi	ld and feel that he/she is capable of
Please complete the section belowish your child to participate in		ol indicating whether you do or do not
If you have any questions, feel	free to call me.	
Sincerely,		
Teacher's Name Gifted and Talented Teacher		
I give my permission for m		EP.
Student's Name	Teacher	Parent's Signature

# GREAT MEADOWS REGIONAL SCHOOL DISTRICT GREAT MEADOWS, NEW JERSEY GIFTED AND TALENTED EDUCATION STEP STUDENT EVALUATION

Name	Grade	Year

# Code: 1. Consistently 2.Frequently 3. Sometimes 4. Rarely

# MARKING PERIODS

THINKING SKILLS	FIRST	SECOND	THIRD	FOURTH
Thinks logically	11101	BECOILE		TOCKIII
Demonstrates creativity				
Identifies problems and selects				
alternatives				
Performs at a variety of cognitive levels				
(knowledge, comprehension, application,				
analysis, synthesis and evaluation)				
EXPOSURE UNITS				
Shows initiative				
Completes projects satisfactorily				
Is enthusiastic about learning (works				
with enthusiasm)				
Relates well with peers				
INDEPENDENT STUDY				
Expresses ideas well orally & in writing				
Demonstrates self-motivation				
Evaluates his/her work for quality and				
completeness				

Teacher's Comments:

Parent's Signature and Comments:

# GREAT MEADOWS REGIONAL SCHOOLS Gifted/Talented/Creative Education

# Let's Explore

Dear	,		
program for students w	who display exceptional	en selected to participate in Let's Explability in the areas of creativity and le	eadership.
•	rm below and return to ticipate in this program.	the school indicating whether you do	or do not
Teacher's Name Gifted and Talented Te	eacher		
		ata in Lat's Evplora	
	for my child to participa	-	
Student's Name	Teacher	Parent's	_

Parent's Signature and Comments:

# GREAT MEADOWS REGIONAL SCHOOL DISTRICT GREAT MEADOWS, NEW JERSEY GIFTED AND TALENTED EDUCATION LET'S EXPLORE STUDENT EVALUATION

Name	Grade		Year_	
Code: 1. Consistently 2.Frequ	2.Frequently 3. Sometimes		•	
		MARKING	PERIODS	
THINKING SKILLS	FIRST	SECOND	THIRD	FOURTH
Thinks creatively				
Demonstrates flexibility				
Practices cooperation in group activities				
Completes projects satisfactorily				
Shows initiative				
Works independently and efficiently				
Expresses curiosity				
Teacher's Comments:				

# Great Meadows Regional School District Gifted/Talented Education Grades K-8

# **Warren County Consortium**

The Great Meadows Regional School District is an active participant in, and advocate of, the Warren County Consortium for Student Enrichment (WCCSE). This collective meets twice yearly to plan events open to students and their advisors.

A sampling of these activities and their grade levels includes:

# Mystery Mayhem (4)

Students are grouped with students from other schools and work together to solve problems.

# **Battle of the Minds (5/6) (7/8)**

An academic bowl for team competition using a game show format.

# Battle of the Books (3/4) (5/6) (7/8)

Ten books are read by team mates and the competition to receive the highest score for the County is the goal for this battle.

## **Debate (5-8)**

Students in grades 5 and 6, and students in grades 7 and 8 will debate in separate divisions.

# Strategic Thinking Day (4/5)

Students will participate in strategic thinking activities with students from other schools.

# Chess Tournament (K-6) (7/8)

A tournament for Chess enthusiasts with teams of varying ability competing against each other.

# Phabulous Physics (3/4)

Third and fourth graders will work in teams and use materials provided to build a roller coaster that will apply the laws of physics to have the car (marble) stop prior to exiting the track.

## **Invention Expo (3/4)**

A showcase for inventors and their inventions. Students will keep a log, identify the problem, and describe the invention.

# Poetry Festival (3-8)

Students participate in original and published poetry reading, artistic offerings may highlight poems.

# Great Meadows Regional School District Gifted/Talented/Creative Education Grade Level: K-2

# **Stage 1: Desired Results**

# **Topic: Creative Thinking Enrichment Cycle**

Core Curriculum Content Number and Strands

STANDARD 9.2: (CONSUMER, FAMILY, AND LIFE SKILLS) ALL STUDENTS WILL DEMONSTRATE CRITICAL LIFE SKILLS IN ORDER TO BE FUNCTIONAL MEMBERS OF SOCIETY.

#### 9.2.8 A. Critical Thinking

- 1. Communicate, analyze data, apply technology, and problem solve.
- 2. Describe how personal beliefs and attitudes affect decision-making.
- 3. Identify and assess problems that interfere with attaining goals.
- 4. Recognize bias, vested interest, stereotyping, and the manipulation and misuse of information.
- 5. Practice goal setting and decision-making in areas relative to life skills.

#### 9.2.8 B. Self-Management

2. Demonstrate responsibility for personal actions and contributions to group activities.

#### 9.2.8 C. Interpersonal Communication

- 1. Demonstrate respect and flexibility in interpersonal and group situations.
- 2. Organize thoughts to reflect logical thinking and speaking.
- 3. Work cooperatively with others to solve a problem.
- 4. Demonstrate appropriate social skills within group activities.
- 5. Practice the skills necessary to avoid physical and verbal confrontation in individual and group settings.
- 6. Participate as a member of a team and contribute to group effort.

#### 9.2.8 D. Character Development and Ethics

- 1. Explain and demonstrate how character and behavior affects and influences the actions of others in the home, school, and community.
- 2. Describe and demonstrate appropriate character traits, social skills, and positive attitudes needed for the home, school, community, and workplace.
- 3. List problems and their causes, effects, and solutions that are faced in the home, school, and/or community.
- 4. Describe how personal ethics influence decision making.

**Big Idea**: Creative thinking strategies are lifetime skills needed to be successful during problem solving and inquiry based situations.

<b>Essential Questions</b>	Enduring Understandings
What support can you find for that	The developmental sequence of
idea?	thinking skills has life long
What do you think would happen	applications.
ifand why?	<ul> <li>Once children learn the isolated</li> </ul>
What evidence can you find to support	thinking skill, they are ready to apply

that idea?

- Why do you think that is true? Untrue?
- How can you use this information?
- Which concepts are facts and which are opinion?
- What would you do if?
- What can you conclude?
- For what reason?

them to content areas.

- Critical and creative thinking allows students to become better problem solvers.
- Open ended questioning leads to greater student reasoning

# **Knowledge and Skills:**

- Analysis
- Synthesis
- Evaluation
- Reflecting
- Hypothesis
- Comparing
- Contrasting
- Classifying
- Summarizing
- Observing
- Designing
- Logic
- Divergent thinking
- Convergent thinking

# Stage 2: Evidence of Understanding

# **Great Meadows Benchmarks:**

#### Students will:

- Identify reasons or evidence
- Draw individual conclusions
- State ideas in their own words
- Provide alternate reasons
- Compare and contrast
- Identify fact and opinion
- Synthesize information
- Identify purpose
- Evaluate the significance of particular ideas
- Verify results
- Categorize characters
- Design graphic organizers
- Make connections
- Identify problems and summarize solutions

# **Assessment Methods:**

- Teacher observation
- Hands-on activities
- Projects
- Rubrics

Great	Meadows Regional			
• Presentations				
Other Evidence and Student Self Assessment:				
		Stage 3: Learning Plan		
W	Students <i>will</i> know the expectations for this unit through stating, reviewing and			
	reflecting upon the essential questions.			
Н	This unit will <i>hook and hold</i> students' attention by utilizing interdisciplinary activities			
	such as music, age appropriate literature and hands-on art experiences.			
E	The following learning <i>experiences</i> that will help the students <i>explore</i> the big ideas and			
	essential questions:			
		Tana a		
	Kindergarten	Grade 1	Grade 2	
	Mud, Mud, Mud	Roads, Roads	Observing	
	Insects	Ice Cream	Describing	
	The Red Dot	Chimney Bird	Classifying	
	I Like Me William, the Blue Hippo Comparing			
	I Lost a Tooth Today Symmetry Synthesizing			
	Shapes Zookeeper Dilemma Evaluation			
	Fly or Swim Cereal Inventing			
	Faces and Circles	I See a Song	Zometools	
	Tools	Shapes		
	Geoboards	Let's Invent		
	Animal Habitats	Lucy Lum Bubble Gum		
R	Students will <i>reflect, rethi</i>	nk. revise. and refine by:	<u> </u>	
	Students will <i>reflect, rethink, revise, and refine</i> by:  • Group discussion			
	<ul> <li>Presenting projects</li> </ul>			
	Teacher/student co.			
$\mathbf{E}$	Students will <i>exhibit</i> understanding through:			
	Drawing individua			
	• Stating ideas in the	ir own words		
	<ul> <li>Providing alternate</li> </ul>			
	Comparing and contrasting			
	<ul> <li>Identifying fact and opinion</li> </ul>			
	Synthesizing information			
	Dicc iii		1 1	
T	Differentiation opportunities to <i>tailor</i> learning will include:			
	Self- discovery activities			
	Open ended questions			
0	Organizational and sequencing considerations include:		<b>:</b>	
	Brainstorming      WWI and interest to the second sec			
	KWL activity			
Time Allotment: 45 minutes; 60 days				
Time Anothert. 45 lilliutes, 00 days				

# **Resources:**

# Student Materials:

• Crayons, markers, glue, scissors, pencils

# Teaching Materials:

- Age appropriate literature
- Posters
- Teacher created visuals
- Teacher created hand-outs
- Specific appropriate musical selections

# Great Meadows Regional School District Life as a Komodo Dragon Grade Level: 2

# **Stage 1: Desired Results**

# **Topic: The Komodo Dragon**

#### Core Curriculum Content Number and Strands

STANDARD 3.3 (SPEAKING) ALL STUDENTS WILL SPEAK IN CLEAR, CONCISE, ORGANIZED LANGUAGE THAT VARIES IN CONTENT AND FORM FOR DIFFERENT AUDIENCES AND PURPOSES.

#### 3.3.8 A. Discussion (small group and whole class)

- 1. Support a position, acknowledging opposing views.
- 2. Present ideas and opinions spontaneously in response to a topic or other speakers.
- 3. Apply rules for cooperative or whole class debate on a controversial issue.
- 4. Define group roles using consensus to ensure task is understood and completed.
- 5. Participate in an informal debate (e.g., small group discussion).
- 6. Respond orally to literature.
- 7. Participate in class discussions appropriately.

#### 3.3.8 B. Questioning (Inquiry) and Contributing

- 1. Paraphrase others' comments to clarify viewpoints.
- 2. Question to clarify others' opinions.
- 3. Integrate relevant information regarding issues and problems from group discussions and interviews for reports, issues, projects, debates, and oral presentations.
- 4. Incorporate varied sentence structure and correct grammar.

#### 3.3.8 D. Oral Presentation

- 1. Use writing to prompt discussion and enhance planning of formal and informal presentations.
- 2. Use visual aids, media, and/or technology to support oral communication.
- 3. Give oral presentations to different audiences for various purposes, such as summaries of books and articles, narratives, and persuasive topics, research projects, and extemporaneous/impromptu, dramatic speeches.
- 4. Acknowledge the audience with eye contact and use appropriate verbal responses to clarify questions and inquiries.
- 5. Incorporate peer feedback and teacher suggestions for revisions in content, organization, and delivery.
- 6. Use speaking techniques, including voice modulation, inflection, tempo, enunciation, and eye contact for effective presentations.
- 7. Use a scoring rubric to prepare, evaluate, and improve the oral presentations of self and others.
- 8. Read aloud with fluency.

# STANDARD 3.4 (LISTENING) ALL STUDENTS WILL LISTEN ACTIVELY TO INFORMATION FROM A VARIETY OF SOURCES IN A VARIETY OF SITUATIONS.

#### 3.4.6 A. Active Listening

- 1. Listen actively for a variety of purposes such as enjoyment and obtaining information.
- 2. Listen attentively and critically to a variety of speakers.
- 3. Acknowledge the speaker through eye contact and use appropriate feedback and questions to clarify the speaker's message.

- 4. Recognize and analyze persuasive techniques while listening.
- 5. Recognize the rich and varied language of literature (e.g., listen to a recording of poetry or classic literature)
- 6. Listen to determine a speaker's purpose, attitude, and perspective.

#### 3.4.6 B. Listening Comprehension

- 1. Demonstrate competence in active listening through responding to a story, interview, or oral report (e.g., summarizing, reacting, retelling).
- 2. Demonstrate competence in active listening by interpreting and applying received information to new situations and in solving problems.
- 3. Ask pertinent questions, take notes, and draw conclusions based on information presented.
- 4. Make inferences based on an oral report or presentation.
- 5. Follow three-and four-step oral directions.

STANDARD 5.1 (SCIENTIFIC PROCESSES) ALL STUDENTS WILL DEVELOP PROBLEM-SOLVING, DECISION-MAKING AND INQUIRY SKILLS, REFLECTED BY FORMULATING USABLE QUESTIONS AND HYPOTHESES, PLANNING EXPERIMENTS, CONDUCTING SYSTEMATIC OBSERVATIONS, INTERPRETING AND ANALYZING DATA, DRAWING CONCLUSIONS, AND COMMUNICATING RESULTS.

#### 5.1.8 A. Habits of Mind

- 1. Evaluate the strengths and weaknesses of data, claims, and arguments.
- 2. Communicate experimental findings to others.
- 3. Recognize that the results of scientific investigations are seldom exactly the same and that replication is often necessary.
- 4. Recognize that curiosity, skepticism, open-mindedness, and honesty are attributes of scientists.

#### 5.1.8 B. Inquiry and Problem Solving

- 1. Identify questions and make predictions that can be addressed by conducting investigations.
- 2. Design and conduct investigations incorporating the use of a control.
- 3. Collect, organize, and interpret the data that result from experiments.

STANDARD 8.2 (TECHNOLOGY EDUCATION) ALL STUDENTS WILL DEVELOP AN UNDERSTANDING OF THE NATURE AND IMPACT OF TECHNOLOGY, ENGINEERING, TECHNOLOGICAL DESIGN, AND THE DESIGNED WORLD AS THEY RELATE TO THE INDIVIDUAL, SOCIETY, AND THE ENVIRONMENT.

#### 8.2.8 B. Design Process and Impact Assessment

- 1. Demonstrate and explain how the design process is not linear.
- 2. Use hands on activities to analyze products and systems to determine how the design process was applied to create the solution.
- 3. Identify a technological problem and use the design process to create an appropriate solution.
- 4. Describe how variations in resources can affect solutions to a technological problem.
- 5. Select and safely use appropriate tools and materials in analyzing, designing, modeling or making a technological product, system or environment.

# STANDARD 9.2: (CONSUMER, FAMILY, AND LIFE SKILLS) ALL STUDENTS WILL DEMONSTRATE CRITICAL LIFE SKILLS IN ORDER TO BE FUNCTIONAL MEMBERS OF SOCIETY.

#### 9.2.8 A. Critical Thinking

- 1. Communicate, analyze data, apply technology, and problem solve.
- 2. Describe how personal beliefs and attitudes affect decision-making.
- 3. Identify and assess problems that interfere with attaining goals.
- 4. Recognize bias, vested interest, stereotyping, and the manipulation and misuse of information.
- 5. Practice goal setting and decision-making in areas relative to life skills.

#### 9.2.8 B. Self-Management

2. Demonstrate responsibility for personal actions and contributions to group activities.

## 9.2.8 C. Interpersonal Communication

- 1. Demonstrate respect and flexibility in interpersonal and group situations.
- 2. Organize thoughts to reflect logical thinking and speaking.
- 3. Work cooperatively with others to solve a problem.
- 4. Demonstrate appropriate social skills within group activities.
- 5. Practice the skills necessary to avoid physical and verbal confrontation in individual and group settings.
- 6. Participate as a member of a team and contribute to group effort.

## 9.2.8 D. Character Development and Ethics

- 1. Explain and demonstrate how character and behavior affects and influences the actions of others in the home, school, and community.
- 2. Describe and demonstrate appropriate character traits, social skills, and positive attitudes needed for the home, school, community, and workplace.
- 3. List problems and their causes, effects, and solutions that are faced in the home, school, and/or community.
- 4. Describe how personal ethics influence decision making.

# Big Idea: Animals adapt to different environments for survival.

#### **Essential Questions Enduring Understandings** • What is adaptation? Komodo dragons are adapted to be • How have komodo dragons adapted to powerful predators. their environment? • The characteristics of the komodo How are komodo dragons similar to dragon are similar to other reptiles. and different from other lizards? The Komodo dragon depends on its adaptation for survival. In what way can humans interfere with Reading for information has life-long an animal's environment? applications. How are komodo dragons unique? Research is using a variety of resources such as technology, books and periodicals.

# **Knowledge and Skills:**

- Analyze information
- Demonstrate understanding of new information
- Organize data
- Compare and contrast
- Communicate findings
- Make inferences
- Predict outcomes
- Hypothesize
- Synthesize information

# **Stage 2: Evidence of Understanding**

# **Great Meadows Benchmarks:**

#### Students will:

- Select appropriate non-fiction literature using technology and library books
- Research and investigate the adaptations of the Komodo Dragon
- Identify characteristics of the Komodo
- Compare and contrast the Komodo Dragon to other lizards
- Identify the adaptations necessary for the Komodo Dragon to survive

• Generate comparison webs identifying adaptations of two lizard selections

# **Assessment Methods:**

- Student knowledge inventory
- Venn diagrams
- Word webs
- Group discussion
- Journaling
- Technology projects
- Differentiated research
- Comparison charts
- Oral presentations

# Other Evidence and Student Self Assessment:

0 11111	Stage 2. Learning Dien	
***	Stage 3: Learning Plan	
W	Students will know the expectations for this unit through stating, reviewing and	
	reflecting upon the essential questions.	
H	This unit will <i>hook and hold</i> students' attention by:	
	<ul> <li>Integrating appropriate activities that emphasize the use of research to become</li> </ul>	
	life-long learners.	
	• Using visuals, appropriate technology websites, children's non-fiction literature	
	and animal galleries to encourage inquiry questions and reflection upon the	
	natural cycle of adaptation for animal survival.	
$\mathbf{E}$	The following learning <i>experiences</i> that will help the students <i>explore</i> the big ideas and	
	essential questions:	
	Technology quests	
	Research using non-fiction literature	
	• Website investigations such as: <a href="www.FactMonster.com">www.wildherps.com</a>	
	www.yahooligans.com and www.enchantedlearning.com	
	Komodo Dragon: On Location	
	Giant Lizards of Indonesia	
R	Students will reflect, rethink, revise, and refine by:	
	Word and idea webbing	
	Student/teacher conferencing	
	Group discussions	
	Comparison charts	
	Peer interactions	
E	Students will <i>exhibit</i> understanding through:	
	Fact and fiction charts	
	Venn diagrams	
	• Information cubes	
	Magic books	
	• Journaling	
	PowerPoint	
	• Information posters	
	• PhotoStory	
Т	Differentiation opportunities to <i>tailor learning</i> will include:	

Pre-assessment of knowledge
 Compacting
 Questioning technique
 Scaffold research literature
 Project pacing

 Organizational and sequencing considerations include:
 Note taking
 Outlining
 Flowcharts
 Unit folders
 KWL activities

# **Time Allotment:** 30 minutes; 60 days

• Brainstorming

# **Resources:**

## **Student Materials:**

- Information folders
- Teacher created printed outs
- Pencils

# Technology:

- www.enchantedlearningcom
- www.sciam.com
- www.wildherps.com
- www.yahooligans.com
- www.about.com
- Book of Knowledge online
- Kidspiration
- Microsoft Word

# Teaching Materials:

- Scaffold non-fiction literature
- Periodicals
- Posters
- Sample searches
- Sample booklets and webs

# Great Meadows Regional School District Gifted/Talented/Creative Education Grade Level: 3

# **Stage 1: Desi red Results**

## **Topic: All About Wolves**

## Core Curriculum Content Number and Strands

STANDARD 5.1 (SCIENTIFIC PROCESSES) ALL STUDENTS WILL DEVELOP PROBLEM-SOLVING, DECISION-MAKING AND INQUIRY SKILLS, REFLECTED BY FORMULATING USABLE QUESTIONS AND HYPOTHESES, PLANNING EXPERIMENTS, CONDUCTING SYSTEMATIC OBSERVATIONS, INTERPRETING AND ANALYZING DATA, DRAWING CONCLUSIONS, AND COMMUNICATING RESULTS.

#### 5.1.8 A. Habits of Mind

- 1. Evaluate the strengths and weaknesses of data, claims, and arguments.
- 2. Communicate experimental findings to others.
- 3. Recognize that the results of scientific investigations are seldom exactly the same and that replication is often necessary.
- 4. Recognize that curiosity, skepticism, open-mindedness, and honesty are attributes of scientists.

#### 5.1.8 B. Inquiry and Problem Solving

- 1. Identify questions and make predictions that can be addressed by conducting investigations.
- 2. Design and conduct investigations incorporating the use of a control.
- 3. Collect, organize, and interpret the data that result from experiments.

STANDARD 8.2 (TECHNOLOGY EDUCATION) ALL STUDENTS WILL DEVELOP AN UNDERSTANDING OF THE NATURE AND IMPACT OF TECHNOLOGY, ENGINEERING, TECHNOLOGICAL DESIGN, AND THE DESIGNED WORLD AS THEY RELATE TO THE INDIVIDUAL, SOCIETY, AND THE ENVIRONMENT.

#### 8.2.8 B. Design Process and Impact Assessment

- 1. Demonstrate and explain how the design process is not linear.
- 2. Use hands on activities to analyze products and systems to determine how the design process was applied to create the solution.
- 3. Identify a technological problem and use the design process to create an appropriate solution.
- 4. Describe how variations in resources can affect solutions to a technological problem.
- 5. Select and safely use appropriate tools and materials in analyzing, designing, modeling or making a technological product, system or environment.

# STANDARD 9.2: (CONSUMER, FAMILY, AND LIFE SKILLS) ALL STUDENTS WILL DEMONSTRATE CRITICAL LIFE SKILLS IN ORDER TO BE FUNCTIONAL MEMBERS OF SOCIETY.

# 9.2.8 A. Critical Thinking

- 1. Communicate, analyze data, apply technology, and problem solve.
- 2. Describe how personal beliefs and attitudes affect decision-making.
- 3. Identify and assess problems that interfere with attaining goals.
- 4. Recognize bias, vested interest, stereotyping, and the manipulation and misuse of information.
- 5. Practice goal setting and decision-making in areas relative to life skills.

# 9.2.8 B. Self-Management

2. Demonstrate responsibility for personal actions and contributions to group activities.

# 9.2.8 C. Interpersonal Communication

- 1. Demonstrate respect and flexibility in interpersonal and group situations.
- 2. Organize thoughts to reflect logical thinking and speaking.
- 3. Work cooperatively with others to solve a problem.
- 4. Demonstrate appropriate social skills within group activities.
- 5. Practice the skills necessary to avoid physical and verbal confrontation in individual and group settings.
- 6. Participate as a member of a team and contribute to group effort.

## 9.2.8 D. Character Development and Ethics

- 1. Explain and demonstrate how character and behavior affects and influences the actions of others in the home, school, and community.
- 2. Describe and demonstrate appropriate character traits, social skills, and positive attitudes needed for the home, school, community, and workplace.
- 3. List problems and their causes, effects, and solutions that are faced in the home, school, and/or community.
- 4. Describe how personal ethics influence decision making.

# Big Idea: Human choices impact both interpersonal relationships and the global environment.

<b>Essential Questions</b>	<b>Enduring Understandings</b>
<ul> <li>How and why did wolves become</li> </ul>	<ul><li>Human behaviors impact our</li></ul>
endangered?	environment negatively and
<ul> <li>In what way have wolves influenced</li> </ul>	positively.
human life?	<ul> <li>Human response to others correlates</li> </ul>
<ul> <li>How are wolf pack behaviors like</li> </ul>	with elements of pack behavior.
human group behaviors?	

# **Knowledge and Skills**

- Analyze information
- Demonstrate understanding of new information
- Organize data
- Compare and contrast
- Communicate findings
- Make inferences
- Predict outcomes
- Hypothesize
- Evaluate outcomes
- Synthesize information

# **Stage 2: Evidence of Understanding**

## **Great Meadows Benchmarks:**

# Students will:

- Research and investigate wolf behaviors
- Identify specific pack behaviors
- Compare and contrast pack behaviors to human behaviors
- Generate lists demonstrating understanding of human behavior on endangered wolf species
- Make observations comparing a man-made environment (Lakota Wolf Preserve) opposed to a natural environment
- Understand how human interactions impact the environment

## **Assessment Methods:**

- Student knowledge inventory
- Venn diagrams
- Word webs
- Group discussion
- Think cubes
- Journaling
- Technology projects and research
- Comparison charts
- Oral presentation

Other Ex	vidence and	Student Sel	If Assessment:
<b>*************************************</b>	riuciice aiiu	1714446111 176	11 /13363311161114

	Stage 3: Learning Plan	
W	Students will know the expectations for this unit through: stating, reviewing, and	
	reflecting upon the essential questions.	
H	This unit will <i>hook and hold</i> students' attention through:	
	<ul> <li>Visual props</li> </ul>	
	• Puppets	
	<ul> <li>Age appropriate literature which demonstrates the misconceptions of wolves</li> </ul>	
E	The following learning <i>experiences</i> that will help the students <i>explore</i> the big ideas and	
	essential questions:	
	<ul> <li>Research using library materials</li> </ul>	
	• <u>www.FactMonster.com</u>	
	• <u>www.Enchantedlearning.com</u>	
	• <u>www.About.com</u>	
R	Students will reflect, rethink, revise, and refine by:	
	Circle books	
	• Fun fact charts	
	Venn diagram	
	• Information cubes	
	<ul> <li>Photostory</li> </ul>	
	<ul> <li>Journaling</li> </ul>	
	PowerPoint	
E	Students will <i>exhibit</i> understanding through:	
	<ul> <li>Researching and investigating wolf behaviors</li> </ul>	
	<ul> <li>Identifying specific pack behaviors</li> </ul>	
	Comparing and contrasting wolf packs and behaviors	
<b>7</b> 5	Differentiation enpertunities to tailor learning will include:	
T	Differentiation opportunities to <i>tailor</i> learning will include:  • Pre-assessment of knowledge	
	<ul> <li>Compacting</li> </ul>	
	<ul> <li>Questioning technique</li> </ul>	
	<ul> <li>Scaffold research literature</li> </ul>	
	Project pacing	
0	Organizational and sequencing considerations include:	
	<ul> <li>Note taking</li> </ul>	
	• Outlining	
	- Outning	

- Flowcharts
- Unit folders
- KWL activities
- Brainstorming

**Time Allotment:** 30 minutes; 60 days

# **Resources:**

# **Student Materials:**

- Information folders
- Teacher created print-outs
- Pencils

# Technology:

- www.enchantedlearningcom
- www.yahooligans.com
- www.about.com
- Book of Knowledge online
- Kidspiration
- Microsoft Word
- PhotoStory

# Teaching Materials:

- Scaffold non-fiction literature
- Periodicals
- Posters
- Sample searches
- Sample booklets and webs

# Great Meadows Regional School District Gifted/Talented/Creative Education Grade Level: 3

# **Stage 1: Desired Results**

# **Topic: Learning Through Art**

## Core Curriculum Content Number and Strands

# STANDARD 1.1 (AESTHETICS) ALL STUDENTS WILL USE AESTHETIC KNOWLEDGE IN THE CREATION OF AND IN RESPONSE TO DANCE, MUSIC, THEATER, AND VISUAL ART.

## 1.1.2 A. Knowledge

- 1. Observe the four art forms of dance, music, theater, and visual art.
- 2. Explain that dance, music, theater and visual art can generate personal feelings.
- 3. Interpret basic elements of style in dance, music, theater, and visual art as the foundation for a creative project.

#### 1.1.2 B. Skills

- Communicate observational and emotional responses to works of art from a variety of social and historical
  contexts.
- 2. Provide an initial response when exposed to an unknown artwork.
- 3. Use imagination to create a story based on an arts experience in each of the art forms

STANDARD 8.2 (TECHNOLOGY EDUCATION) ALL STUDENTS WILL DEVELOP AN UNDERSTANDING OF THE NATURE AND IMPACT OF TECHNOLOGY, ENGINEERING, TECHNOLOGICAL DESIGN, AND THE DESIGNED WORLD AS THEY RELATE TO THE INDIVIDUAL, SOCIETY, AND THE ENVIRONMENT.

#### 8.2.8 B. Design Process and Impact Assessment

- 1. Demonstrate and explain how the design process is not linear.
- Use hands on activities to analyze products and systems to determine how the design process was applied to create the solution.
- 3. Identify a technological problem and use the design process to create an appropriate solution.
- 4. Describe how variations in resources can affect solutions to a technological problem.
- 5. Select and safely use appropriate tools and materials in analyzing, designing, modeling or making a technological product, system or environment.

# Standard 9.2: (CONSUMER, FAMILY, AND LIFE SKILLS) ALL STUDENTS WILL DEMONSTRATE CRITICAL LIFE SKILLS IN ORDER TO BE FUNCTIONAL MEMBERS OF SOCIETY.

# 9.2.8 A. Critical Thinking

- 1. Communicate, analyze data, apply technology, and problem solve.
- 2. Describe how personal beliefs and attitudes affect decision-making.
- 3. Identify and assess problems that interfere with attaining goals.
- 4. Recognize bias, vested interest, stereotyping, and the manipulation and misuse of information.
- 5. Practice goal setting and decision-making in areas relative to life skills.

## 9.2.8 B. Self-Management

2. Demonstrate responsibility for personal actions and contributions to group activities.

#### 9.2.8 C. Interpersonal Communication

- 1. Demonstrate respect and flexibility in interpersonal and group situations.
- 2. Organize thoughts to reflect logical thinking and speaking.
- 3. Work cooperatively with others to solve a problem.
- 4. Demonstrate appropriate social skills within group activities.
- 5. Practice the skills necessary to avoid physical and verbal confrontation in individual and group settings.
- 6. Participate as a member of a team and contribute to group effort.

# 9.2.8 D. Character Development and Ethics

- 1. Explain and demonstrate how character and behavior affects and influences the actions of others in the home, school, and community.
- 2. Describe and demonstrate appropriate character traits, social skills, and positive attitudes needed for the home, school, community, and workplace.
- 3. List problems and their causes, effects, and solutions that are faced in the home, school, and/or community.
- 4. Describe how personal ethics influence decision making.

# Big Idea: Interpreting art provides opportunities for observation, discovery and questioning.

<b>Essential Questions</b>	<b>Enduring Understandings</b>
<ul> <li>How can art be explored mathematically, scientifically and socially?</li> <li>What elements do all artists use in their works?</li> <li>In what way is the art work presented in the Guggenheim Collection alike? Different?</li> <li>What are the character traits necessary to be an artist?</li> </ul>	<ul> <li>Some styles of art are appreciated by some people and disliked by others.</li> <li>Individual expression requires risk taking.</li> <li>Observation allows discovery.</li> </ul>

# **Knowledge and Skills:**

- Compare and contrast
- Synthesizing knowledge
- Prediction
- Demonstrate understanding
- Analyze information
- Critical thinking
- Communicate findings

# **Stage 2: Evidence of Understanding**

## **Great Meadows Benchmarks:**

Students will:

- Research Marc Chagall, Pablo Picasso and Roy Lichtenstein
- Identify character traits of the artists
- Make observations identifying similarities and differences of art selections

# **Assessment Methods:**

- Word webs
- Venn Diagrams
- Information charts
- Knowledge cubes
- Individual interpretations
- Journaling

# **Other Evidence and Student Self Assessment:**

Other Evidence and Stadent Sen Hissessment		
Stage 3: Learning Plan		
$\mathbf{W}$	Students will know the expectations for this unit through: stating, reviewing and	
	reflecting upon the essential questions	
Н	This unit will <i>hook and hold</i> students' attention by:	
	Art posters	

- Age appropriate biographies
   Interpretation sketches
   The following learning *experiences* that will help the students *explore* the big ideas and essential questions:
  - Teacher created literary scavenger hunt
  - Arts for Children research
  - Word webs

• Sculpture models

- www.about.com, Book of Knowledge online, www.guggenheim.com
- **R** Students will *reflect*, *rethink*, *revise*, *and refine* by:
  - Think cubes
  - Magic books
  - Powerful Being Sculpture
  - Independent journals
  - Fun fact booklets
  - Industrial gear diagrams
- **E** Students will *exhibit* understanding through:
  - Chagall expressions
  - Comparison charts
  - Journaling
  - PowerPoint
  - Information posters
  - Timelines
- T Differentiation opportunities to *tailor* learning will include:
  - Researching and comparing artists
  - Identifying the character traits of an artist
  - Comparing and contrasting artistic styles
- **O** *Organizational* and sequencing considerations include:
  - KWL activities
    - Brainstorming
    - Kidspiration
    - Flowcharts

**Time Allotment:** 30 minutes; 30 days

# **Resources:**

**Student Materials:** 

- Information folders
- Teacher created Guggenheim packet
- Posters

# Technology:

- Kidspiration
- Microsoft Word
- www.guggenheim.com
- www.about.com
- www.google.com

# Teaching Materials:

- Arts for Children biographies
- Posters
- Learning Through Art
- Teacher created information packets

# Teaching Resources:

- Learning Through Art, Guggenheim Museum, 2001
- Arts for Children, Earnest Raboff, 1998

# Great Meadows Regional School District Gifted/Talented/Creative Education Grade Level: 4

# **Stage 1: Desired Results**

## **Topic: Inventors and Inventions**

## Core Curriculum Content Number and Strands

STANDARD 5.1 (SCIENTIFIC PROCESSES) ALL STUDENTS WILL DEVELOP PROBLEM-SOLVING, DECISION-MAKING AND INQUIRY SKILLS, REFLECTED BY FORMULATING USABLE QUESTIONS AND HYPOTHESES, PLANNING EXPERIMENTS, CONDUCTING SYSTEMATIC OBSERVATIONS, INTERPRETING AND ANALYZING DATA, DRAWING CONCLUSIONS, AND COMMUNICATING RESULTS.

#### 5.1.8 A. Habits of Mind

- 1. Evaluate the strengths and weaknesses of data, claims, and arguments.
- 2. Communicate experimental findings to others.
- 3. Recognize that the results of scientific investigations are seldom exactly the same and that replication is often necessary.
- 4. Recognize that curiosity, skepticism, open-mindedness, and honesty are attributes of scientists.

## 5.1.8 B. Inquiry and Problem Solving

- 1. Identify questions and make predictions that can be addressed by conducting investigations.
- 2. Design and conduct investigations incorporating the use of a control.
- 3. Collect, organize, and interpret the data that result from experiments.

STANDARD 8.2 (TECHNOLOGY EDUCATION) ALL STUDENTS WILL DEVELOP AN UNDERSTANDING OF THE NATURE AND IMPACT OF TECHNOLOGY, ENGINEERING, TECHNOLOGICAL DESIGN, AND THE DESIGNED WORLD AS THEY RELATE TO THE INDIVIDUAL, SOCIETY, AND THE ENVIRONMENT.

#### 8.2.8 B. Design Process and Impact Assessment

- 1. Demonstrate and explain how the design process is not linear.
- 2. Use hands on activities to analyze products and systems to determine how the design process was applied to create the solution.
- 3. Identify a technological problem and use the design process to create an appropriate solution.
- 4. Describe how variations in resources can affect solutions to a technological problem.
- 5. Select and safely use appropriate tools and materials in analyzing, designing, modeling or making a technological product, system or environment.

# STANDARD 9.2: (CONSUMER, FAMILY, AND LIFE SKILLS) ALL STUDENTS WILL DEMONSTRATE CRITICAL LIFE SKILLS IN ORDER TO BE FUNCTIONAL MEMBERS OF SOCIETY.

# 9.2.8 A. Critical Thinking

- 1. Communicate, analyze data, apply technology, and problem solve.
- 2. Describe how personal beliefs and attitudes affect decision-making.
- 3. Identify and assess problems that interfere with attaining goals.
- 4. Recognize bias, vested interest, stereotyping, and the manipulation and misuse of information.
- 5. Practice goal setting and decision-making in areas relative to life skills.

# 9.2.8 B. Self-Management

2. Demonstrate responsibility for personal actions and contributions to group activities.

# 9.2.8 C. Interpersonal Communication

- 1. Demonstrate respect and flexibility in interpersonal and group situations.
- 2. Organize thoughts to reflect logical thinking and speaking.
- 3. Work cooperatively with others to solve a problem.
- 4. Demonstrate appropriate social skills within group activities.
- 5. Practice the skills necessary to avoid physical and verbal confrontation in individual and group settings.

6. Participate as a member of a team and contribute to group effort.

## 9.2.8 D. Character Development and Ethics

- 1. Explain and demonstrate how character and behavior affects and influences the actions of others in the home, school, and community.
- 2. Describe and demonstrate appropriate character traits, social skills, and positive attitudes needed for the home, school, community, and workplace.
- 3. List problems and their causes, effects, and solutions that are faced in the home, school, and/or community.
- 4. Describe how personal ethics influence decision making.

**Big Idea:** Inventing challenges students to solve problems and explore new ways to build on existing ideas.

<b>Essential Questions</b>	Enduring Understandings
<ul> <li>How does inventing encourage creative problem solving?</li> <li>In what way is literal thinking and lateral thinking encouraged during inventing?</li> <li>How do inventions impact lives and societies?</li> <li>In what way does the inventing process impact independent and creative thinking?</li> </ul>	<ul> <li>Change can impact a society both positively and negatively.</li> <li>Creative problem solving is an ongoing process in order to impact change.</li> <li>Communication and expressing ideas are necessary changes to be implemented.</li> </ul>

## **Knowledge and Skills:**

- Synthesize information
- Analyze and interpret facts
- Evaluate possible outcomes
- Draw conclusions
- Hypothesize
- Evaluate final products
- Communicate results

# **Stage 2: Evidence of Understanding**

# **Great Meadows Benchmarks**

#### Students will:

- Research and investigate famous inventors and inventions
- Identify character and personality traits needed to be an inventor
- Compare and contrast past and present inventions
- Generate inventing ideas using brainstorming techniques and a needs identification checklist
- Make observations identifying purpose and the need for specific inventions
- Understand the importance of the problem solving steps during the inventing process

# **Assessment Methods:**

- Student knowledge inventory
- Word webs
- Timelines
- Oral presentation
- Journaling
- Inventions

Pick a Packet Outlining Other Evidence and Student Self Assessment: **Stage 3: Learning Plan** W Students will know the expectations for this unit through: stating, reviewing and reflecting upon the essential question This unit will *hook and hold* students' attention by: Η Visual props • Exhibits from the Morris Museum (telegraph, light bulb by Edison, etc.) • Age appropriate literature • Kids Invent website The following learning *experiences* that will help the students *explore* the big ideas and  $\mathbf{E}$ essential questions: Research specific inventors and inventions • Visit virtual museums • Explore invention websites • Quest Atlantis quests and missions • Invention Conventions Students will *reflect*, *rethink*, *revise*, *and refine* by: R • Word and idea webs • Group discussion • Comparison charts • Pair sharing Peer interviews • Peer presentations Students will *exhibit* understanding through:  $\mathbf{E}$ • Fun fact chart Venn diagram • Invention timelines Journaling PowerPoint Magic books Circle summaries • Information posters Differentiation opportunities to *tailor* learning will include: T • Pre-assessment of knowledge Compacting Project pacing Organizational and sequencing considerations include: 0 Note-taking journals Outlining Summarizing Flowcharts Unit folders • KWL activity

**Time Allotment:** 30 minutes; 60 days

## **Resources:**

# **Student Materials:**

- Information folders
- Pre knowledge inventory
- Teacher created packet
- How things work
- Creative Problem Solving Model
- Supplies

# Technology:

- Kidspiration
- Timeliner
- PhotoStory
- Microsoft Word
- PowerPoint
- www.kidsinvent.com
- www.mit.edu
- www.about.com
- www.inventors.about.com
- Quest Atlantis mission

# Teaching Materials:

- Scaffold non-fiction literature
- Inventor biographies
- How Things Work
- The Invention Convention
- Kids Invent
- Posters
- Sample Searches
- Sample webs and booklets

## Great Meadows Regional School District Gifted/Talented/Education Let's Explore Grade 3-4

## **Stage 1: Desired Results**

## **Topic: Problem Solving**

## Core Curriculum Content Number and Strands

STANDARD 1.2 (CREATION AND PERFORMANCE) ALL STUDENTS WILL UTILIZE THOSE SKILLS, MEDIA, METHODS, AND TECHNOLOGIES APPROPRIATE TO EACH ART FORM IN THE CREATION, PERFORMANCE, AND PRESENTATION OF DANCE, MUSIC, THEATER, AND VISUAL ART.

#### **1.2.6 Theater:**

- 2. Create characterizations in context through manipulation of vocal and physical qualities and circumstances.
- 3. Collaboratively plan and execute group scenes stemming from improvisational scenes.

STANDARD 3.1 (READING) ALL STUDENTS WILL UNDERSTAND AND APPLY THE KNOWLEDGE OF SOUNDS, LETTERS, AND WORDS IN WRITTEN ENGLISH TO BECOME INDEPENDENT AND FLUENT READERS, AND WILL READ A VARIETY OF MATERIALS AND TEXTS WITH FLUENCY AND COMPREHENSION.

#### 3.1.5 F. Vocabulary and Concept Development:

- 4. Use a grade-level appropriate dictionary independently to define unknown words.
- 5. Use a thesaurus to identify alternative word choices and meanings.

#### 3.1.5 G. Comprehension Skills and Response to Text

- 3. Use cause and effect and sequence of events to gain meaning.
- 4. Anticipate and construct meaning from text by making conscious connections to self, an author, and others.

STANDARD 3.3 (SPEAKING) ALL STUDENTS WILL SPEAK IN CLEAR, CONCISE, ORGANIZED LANGUAGE THAT VARIES IN CONTENT AND FORM FOR DIFFERENT AUDIENCES AND PURPOSES.

#### 3.3.8 A. Discussion (small group and whole class)

- 1. Support a position, acknowledging opposing views.
- 2. Present ideas and opinions spontaneously in response to a topic or other speakers.
- 3. Apply rules for cooperative or whole class debate on a controversial issue.
- 4. Define group roles using consensus to ensure task is understood and completed.
- 5. Participate in an informal debate (e.g., small group discussion).
- 6. Respond orally to literature.
- 7. Participate in class discussions appropriately.

## 3.3.8 B. Questioning (Inquiry) and Contributing

- 1. Paraphrase others' comments to clarify viewpoints.
- 2. Question to clarify others' opinions.
- 3. Integrate relevant information regarding issues and problems from group discussions and interviews for reports, issues, projects, debates, and oral presentations.
- 4. Solve a problem or understand a task through group cooperation.

#### 3.3.8 D. Oral Presentation

- 1. Use writing to prompt discussion and enhance planning of formal and informal presentations.
- 2. Use visual aids, media, and/or technology to support oral communication.
- 3. Give oral presentations to different audiences for various purposes, such as summaries of books and

- articles, narratives, and persuasive topics, research projects, and extemporaneous/impromptu, dramatic speeches.
- 4. Acknowledge the audience with eye contact and use appropriate verbal responses to clarify questions and inquiries.
- 5. Incorporate peer feedback and teacher suggestions for revisions in content, organization, and delivery.
- 6. Use speaking techniques, including voice modulation, inflection, tempo, enunciation, and eye contact for effective presentations.
- 7. Use a scoring rubric to prepare, evaluate, and improve the oral presentations of self and others.
- 8. Read aloud with fluency.

## STANDARD 3.4 (LISTENING) ALL STUDENTS WILL LISTEN ACTIVELY TO INFORMATION FROM A VARIETY OF SOURCES IN A VARIETY OF SITUATIONS.

#### 3.4.6 A. Active Listening

- 1. Listen actively for a variety of purposes such as enjoyment and obtaining information.
- 2. Listen attentively and critically to a variety of speakers.
- 3. Acknowledge the speaker through eye contact and use appropriate feedback and questions to clarify the speaker's message.
- 4. Recognize and analyze persuasive techniques while listening.
- 5. Recognize the rich and varied language of literature (e.g., listen to a recording of poetry or classic literature).
- 6. Listen to determine a speaker's purpose, attitude, and perspective.

## 3.4.6 B. Listening Comprehension

- 1. Demonstrate competence in active listening through responding to a story, interview, or oral report (e.g., summarizing, reacting, retelling).
- 2. Demonstrate competence in active listening by interpreting and applying received information to new situations and in solving problems.
- 3. Ask pertinent questions, take notes, and draw conclusions based on information presented.
- 4. Make inferences based on an oral report or presentation.
- 5. Follow three-and four-step oral directions.

STANDARD 6.1 (SOCIAL STUDIES SKILLS) ALL STUDENTS WILL UTILIZE HISTORICAL THINKING, PROBLEM SOLVING, AND RESEARCH SKILLS TO MAXIMIZE THEIR UNDERSTANDING OF CIVICS, HISTORY, GEOGRAPHY, AND ECONOMICS.

#### 6.1.8 A. Social Studies Skills

- 1. Analyze how events are related over time.
- 2. Use critical thinking skills to interpret events, recognize bias, point of view, and context.
- 5. Examine current issues, events, or themes and relate them to past events.
- 6. Formulate questions based on information needs. Summarize information in written, graphic, and oral formats.

STANDARD 8.2 (TECHNOLOGY EDUCATION) ALL STUDENTS WILL DEVELOP AN UNDERSTANDING OF THE NATURE AND IMPACT OF TECHNOLOGY, ENGINEERING, TECHNOLOGICAL DESIGN, AND THE DESIGNED WORLD AS THEY RELATE TO THE INDIVIDUAL, SOCIETY, AND THE ENVIRONMENT.

## 8.2.8 B. Design Process and Impact Assessment

- 1. Demonstrate and explain how the design process is not linear.
- 2. Use hands on activities to analyze products and systems to determine how the design process was applied to create the solution.
- 3. Identify a technological problem and use the design process to create an appropriate solution.
- 4. Describe how variations in resources can affect solutions to a technological problem.
- 5. Select and safely use appropriate tools and materials in analyzing, designing, modeling or making a technological product, system or environment.

**Big Idea:** Knowledge and good use of critical and creative problem solving skills serve as essential life tools.

<b>Essential Questions</b>	<b>Enduring Understandings</b>
<ul><li>How do people think?</li></ul>	• Problem solving assists people in all
<ul> <li>How and when do people make</li> </ul>	aspects of daily living.
discoveries?	• The skills of problem solving generate
<ul><li>What is creativity?</li></ul>	ideas and ideologies which can
<ul> <li>What are key questions that generate</li> </ul>	advance/destroy societies.
interesting thinking?	<ul> <li>Higher level thinking skills create better</li> </ul>
• Why do we decide to solve problems?	reasoners and problem solvers.

## **Knowledge and Skills:**

- Analysis
- Synthesis
- Evaluation
- Reflecting
- Hypothesis
- Comparing
- Contrasting
- Classifying
- Summarizing
- Observing
- Designing
- Logic
- Divergent thinking
- Convergent thinking

## **Stage 2: Evidence of Understanding**

## **Great Meadows Benchmarks:**

## Students will:

- Identify reasons or evidence
- Draw individual conclusions
- State ideas in their own words
- Provide alternate reasons
- Compare and contrast
- Synthesize information
- Identify purpose
- Evaluate the significance of particular ideas
- Verify results
- Make connections
- Identify problems and summarize solutions

## **Assessment Methods:**

- Teacher observation
- Hands-on activities
- Projects

Great Meadows Regional				
•	<ul> <li>Rubrics</li> </ul>			
•	Presentations			
Other :	Evidence and Student Self Assessment:			
	Stage 3: Learning Plan			
$\mathbf{W}$	Students will know the expectations for this unit through: discussion, analysis and			
	reflection of the essential questions.			
H	This unit will <i>hook and hold</i> students' attention by:			
	Applying skills using hands-on activities			
	• Puzzles			
	Inventing			
	• Books			
	Interdisciplinary experiences			
E	The following learning <i>experiences</i> that will help the students <i>explore</i> the big ideas and			
	essential questions:			
	• Zometools			
	Piping Roller Coasters			
	Kids Invent			
	Build a New Improved House for the 3 Little Pigs			
	Brain Busters			
	Optical Illusions			
	Geo Shapes			
	Mystery Madness			
	Stories with Holes			
R	Students will reflect, rethink, revise, and refine by:			
	Group discussions			
	Project presentations			
	Teacher/student conferencing			
E	Students will <i>exhibit</i> understanding through:			
	Drawing individual conclusions			
	Stating ideas in their own works			
	Providing alternate reasons			
	Comparing and contrasting			
	Identifying fact and opinion			
	Synthesizing information			
T	Differentiation opportunities to <i>tailor</i> learning will include:			
1	Self- discovery activities			
	Open ended questions			
0	Organizational and sequencing considerations include:			
	Brainstorming			
	KWL activity			
Time Allotment: 30 minutes; 30 days				
Time Time Vinitality 30 minutes, 30 days				

## **Resources:**

Student Materials:

- Student folders
- Appropriate project materials Teaching Materials:

- Zometools
- Invent America
- Phabulous Physics

## 5<sup>th</sup> Grade and Middle School Programs

## **STEP and Let's Explore:**

Depending on the school schedule, these groups, one each per grade level, may meet either separately, or as a combined group. Generally, these programs will be pull-out programs through grade level cycles. Additionally, groups may meet for enrichment activities during lunch, or after school. Classes will be diverse and meet students' individual identified areas of giftedness.

## **Discover! Workshops:**

Discover! Workshops are high-interest, short term workshops that engage students of divergent abilities, who demonstrate a talent, curiosity, eagerness, and desire to learn.

These before, during, and after-school, school-wide enrichment programs will further enhance the innate curiosity of the identified G/T learner, and also open doors to those students who demonstrate specific areas of interest which include:

- Curiosity
- Problem-solving ability
- Adventurous natures
- Love of reading
- *Hands-on learning aptitude*
- *Legos and Robotix*

Students may "enroll" in as many of these workshops as they wish on a first-come, first-served basis. Class size is limited to 8-10 students, dependent upon topic.

## **Warren County Consortium for Student Enrichment:**

These after-school activities, hosted and held at a variety of Warren County locations will be open to students demonstrating interest and aptitude in the specific area. Activities available to students in grades 5-8 include:

- Chess Club Tournaments
- *Battle of the Books*
- *Battle of the Minds*
- Forensic Competition
- Strategic Thinking
- Robotix

# Identification of Gifted and Talented Students 5-8 Program Nomination, Assessment and Placement

## Nomination

The purpose of the nomination process is to identify potentially gifted and talented students. These students are nominated through academic performance, screening assessments, work samples, parental, teacher, or professional nominations.

## Assessment

Information on students identified as potentially gifted and talented will be collected for grades 5/6, and for 7/8 using:

- Existing test data
- Administration of the SAGES CogAT or GATES Assessment
- Teacher observation
- Grades
- Performance Assessment

## Placement

All students nominated will be reviewed using district approved criteria. When a student has been selected to participate in the gifted and talented program, parents will be notified.

## **Program Continuation**

A child's continued participation shall be evaluated throughout the year. Involvement is based on student academic achievement, standardized test scores, and/or administrative recommendation. All students are monitored for continued inclusion.

## Great Meadows Middle School Identification Matrix for

## Inclusion in Gifted and Talented Education Program

Student:	G	rade: Y	ear:		
	5 points	4 points	3 points	2 points	1 point
Honor Roll (1 point per marking period/Grs. 5 and 6)	o pomes	1 points	o points	2 points	Gr. 5 Gr.6
High Honor Roll (numbers of marking periods achieved.)	All 4 quarters Gr.7: Gr. 8:	3 quarters	2 quarters	1 quarter	
GATES Sub-test Analysis Standard Score Interpretations Intellectual	Extremely Probable	Highly Probable	Probable	Borderline	Unlikely/ Very unlikely
Academic					
Creativity					
Leadership					
Artistic					
Performance Assessment	Extremely well constructed. Clever and unique, all requirements included. Creative risks evident. (Ex: cartoon/artistic additions, clever dialog or characterization, etc.	Well constructed and articulated. Clearly communicated. Creativity evident.	Partially complete. Some components missing or weakly defined. Limited use of creativity	Borderline. Limited completion. Lacks focus and creativity. Off task.	Poorly done.
Teacher (G/T or other) Recommendation					
Total points: (30 pt. minimum preferred)					
Optional Criteria: (May include inclusion tool from previous school, "highly proficient" status on standardized test (+2 points for each), SAGES test result, or recent "IQ" score of 127+.)					
Program Status:					
Identified eligible	Eligible and enrolle	d Eligible and 1	not enrolled	Ineligible	
racinatica cligible	Ingibic and cirione	ingibic and i	iot ciii oiicu	menginic	

writing!)

## Great Meadows Middle School Performance Assessment Gifted and Talented Education

Please read the writing prompt carefully and respond in the time allowed. Before turning it in, please reread your response to ensure that what you have written makes sense, and is on target. You may write in script or print. Enjoy!

script or print. Enjoy!  Name:	Grada	Date:
Name	Orace	Date
PROBLEM: One afternoon in schodollar signs, and announces. WIN S		t yellow piece of paper. It is decorated with
Very interested, you read aged 10-18. In an essay, highlighte	on: Great Meadows's Municipal And with illustrations to enhance your	alliance is sponsoring a contest for students submission, respond to the following: Great laces have things that need to be tweaked to
Your mission, should you	e the identified problem. Demonstr	roblem that you perceive in our community, rate, with details, how you can successfully
Be creative! The top tw		anel of local business men, educators, and
simply fascinated! The winner will cannot be kept by the winner, but INTO ACTION, and stay within but	earn \$1,000 and an additional \$100 must be applied to the winning ideadget! Can you do it? If you can,	st than you first expected, and, now, you are gift card. However, the prize money a. You actually have to PUT YOUR IDEA the gift card is yours to keep. If not, then make Great Meadows an even better place to
<ul> <li>You're a great planner!</li> <li>You can organize anything</li> <li>You can convince friends a</li> <li>But, can you stay within be</li> <li>Will your problem and community residents?</li> </ul>	and family to help out! udget?	that will improve the quality of life for
Get started, the prize is almost in yo	our handsand you DO have what it	takes to win!
(No, this is NOT a real contest; this a candidate for our STEP/Quest pro		to see if you are a true THINK-A-SAURUS,
top right corner of your essay paper	r, and staple it to this cover sheet. Y	e assessment. Please write your name in the ou will be evaluated on writing skills, essay attention to details. Thank you, and happy

## Great Meadows Regional School District Gifted/Talented Education Grade Level: 5-6

## **Stage 1: Desired Results**

**Topic: Problem Solving** 

#### Core Curriculum Content Number and Strands

STANDARD 1.2 (CREATION AND PERFORMANCE) ALL STUDENTS WILL UTILIZE THOSE SKILLS, MEDIA, METHODS, AND TECHNOLOGIES APPROPRIATE TO EACH ART FORM IN THE CREATION, PERFORMANCE, AND PRESENTATION OF DANCE, MUSIC, THEATER, AND VISUAL ART.

#### **1.2.6** C. Theater:

- 2. Create characterizations in context through manipulation of vocal and physical qualities and circumstances.
- 3. Collaboratively plan and execute group scenes stemming from improvisation.

STANDARD 3.1 (READING) ALL STUDENTS WILL UNDERSTAND AND APPLY THE KNOWLEDGE OF SOUNDS, LETTERS, AND WORDS IN WRITTEN ENGLISH TO BECOME INDEPENDENT AND FLUENT READERS, AND WILL READ A VARIETY OF MATERIALS AND TEXTS WITH FLUENCY AND COMPREHENSION.

#### 3.1.5 F. Vocabulary and Concept Development:

- 4. Use a grade-level appropriate dictionary independently to define unknown words.
- 5. Use a thesaurus to identify alternative word choices and meanings.

## 3.1.5 G. Comprehension Skills and Response to Text

- 3. Use cause and effect and sequence of events to gain meaning.
- 4. Anticipate and construct meaning from text by making conscious connections to self, an author, and others.

STANDARD 3.3 (SPEAKING) ALL STUDENTS WILL SPEAK IN CLEAR, CONCISE, ORGANIZED LANGUAGE THAT VARIES IN CONTENT AND FORM FOR DIFFERENT AUDIENCES AND PURPOSES.

## 3.3.8 A. Discussion (small group and whole class)

- 1. Support a position, acknowledging opposing views.
- 2. Present ideas and opinions spontaneously in response to a topic or other speakers.
- 3. Apply rules for cooperative or whole class debate on a controversial issue.
- 4. Define group roles using consensus to ensure task is understood and completed.
- 5. Participate in a formal debate (e.g., panel discussion).
- 6. Respond orally to literature.
- 7. Participate in class discussions appropriately.

## 3.3.8 B. Questioning (Inquiry) and Contributing

- 1. Paraphrase others' comments to clarify viewpoints.
- 2. Question to clarify others' opinions.
- 3. Integrate relevant information regarding issues and problems from group discussions and interviews for reports, issues, projects, debates, and oral presentations.
- 4. Solve a problem or understand a task through group cooperation.

#### 3.3.8 D. Oral Presentation

1. Use writing to prompt discussion and enhance planning of formal and informal presentations.

- 2. Use visual aids, media, and/or technology to support oral communication.
- 3. Give oral presentations to different audiences for various purposes, such as summaries of books and articles, narratives, and persuasive topics, research projects, and extemporaneous/impromptu, dramatic speeches.
- 4. Acknowledge the audience with eye contact and use appropriate verbal responses to clarify questions and inquiries.
- 5. Incorporate peer feedback and teacher suggestions for revisions in content, organization, and delivery.
- 6. Use speaking techniques, including voice modulation, inflection, tempo, enunciation, and eye contact for effective presentations.
- 7. Use a scoring rubric to prepare, evaluate, and improve the oral presentations of self and others.
- 8. Read aloud with fluency.

## STANDARD 3.4 (LISTENING) ALL STUDENTS WILL LISTEN ACTIVELY TO INFORMATION FROM A VARIETY OF SOURCES IN A VARIETY OF SITUATIONS.

#### 3.4.6 A. Active Listening

- 1. Listen actively for a variety of purposes such as enjoyment and obtaining information.
- 2. Listen attentively and critically to a variety of speakers.
- Acknowledge the speaker through eye contact and use appropriate feedback and questions to clarify the speaker's message.
- 4. Recognize and analyze persuasive techniques while listening.
- 5. Recognize the rich and varied language of literature (e.g., listen to a recording of poetry or classic literature).
- 6. Listen to determine a speaker's purpose, attitude, and perspective.

## 3.4.6 B. Listening Comprehension

- 1. Demonstrate competence in active listening through responding to a story, interview, or oral report (e.g., summarizing, reacting, retelling).
- 2. Demonstrate competence in active listening by interpreting and applying received information to new situations and in solving problems.
- 3. Ask pertinent questions, take notes, and draw conclusions based on information presented.
- 4. Make inferences based on an oral report or presentation.
- 5. Follow three-and four-step oral directions.

STANDARD 5.1 (SCIENTIFIC PROCESSES) ALL STUDENTS WILL DEVELOP PROBLEM-SOLVING, DECISION-MAKING AND INQUIRY SKILLS, REFLECTED BY FORMULATING USABLE QUESTIONS AND HYPOTHESES, PLANNING EXPERIMENTS, CONDUCTING SYSTEMATIC OBSERVATIONS, INTERPRETING AND ANALYZING DATA, DRAWING CONCLUSIONS, AND COMMUNICATING RESULTS.

## 5.1.8 A. Habits of Mind

- 1. Evaluate the strengths and weaknesses of data, claims, and arguments.
- 2. Communicate experimental findings to others.
- 3. Recognize that the results of scientific investigations are seldom exactly the same and that replication is often necessary.
- 4. Recognize that curiosity, skepticism, open-mindedness, and honesty are attributes of scientists.

#### 5.1.8 B. Inquiry and Problem Solving

- 1. 1.Identify questions and make predictions that can be addressed by conducting investigations.
- 2. 2.Design and conduct investigations incorporating the use of a control.
- 3. 3.Collect, organize, and interpret the data that result from experiments.

STANDARD 6.1 (SOCIAL STUDIES SKILLS) ALL STUDENTS WILL UTILIZE HISTORICAL THINKING, PROBLEM SOLVING, AND RESEARCH SKILLS TO MAXIMIZE THEIR UNDERSTANDING OF CIVICS, HISTORY, GEOGRAPHY, AND ECONOMICS

#### 6.1.8 A. Social Studies Skills

- 1. Analyze how events are related over time.
- 2. Use critical thinking skills to interpret events, recognize bias, point of view, and context.
- 5. Examine current issues, events, or themes and relate them to past events.
- 6. Formulate questions based on information needs.
- 11. Summarize information in written, graphic, and oral formats.

STANDARD 8.2 (TECHNOLOGY EDUCATION) ALL STUDENTS WILL DEVELOP AN UNDERSTANDING OF THE NATURE AND IMPACT OF TECHNOLOGY, ENGINEERING, TECHNOLOGICAL DESIGN, AND THE DESIGNED WORLD AS THEY RELATE TO THE INDIVIDUAL, SOCIETY, AND THE ENVIRONMENT.

#### 8.2.8 B. Design Process and Impact Assessment

- 1. Demonstrate and explain how the design process is not linear.
- 2. Use hands on activities to analyze products and systems to determine how the design process was applied to create the solution.
- 3. Identify a technological problem and use the design process to create an appropriate solution.
- 4. Describe how variations in resources can affect solutions to a technological problem.
- 5. Select and safely use appropriate tools and materials in analyzing, designing, modeling or making a technological product, system or environment.

## STANDARD 9.2: (CONSUMER, FAMILY, AND LIFE SKILLS) ALL STUDENTS WILL DEMONSTRATE CRITICAL LIFE SKILLS IN ORDER TO BE FUNCTIONAL MEMBERS OF SOCIETY.

#### 9.2.8 A. Critical Thinking

- 1. Communicate, analyze data, apply technology, and problem solve.
- 2. Describe how personal beliefs and attitudes affect decision-making.
- 3. Identify and assess problems that interfere with attaining goals.
- 4. Recognize bias, vested interest, stereotyping, and the manipulation and misuse of information.
- 5. Practice goal setting and decision-making in areas relative to life skills.

#### 9.2.8 B. Self-Management

2. Demonstrate responsibility for personal actions and contributions to group activities.

#### 9.2.8 C. Interpersonal Communication

- 1. Demonstrate respect and flexibility in interpersonal and group situations.
- 2. Organize thoughts to reflect logical thinking and speaking.
- 3. Work cooperatively with others to solve a problem.
- 4. Demonstrate appropriate social skills within group activities.
- 5. Practice the skills necessary to avoid physical and verbal confrontation in individual and group settings.
- 6. Participate as a member of a team and contribute to group effort.

#### 9.2.8 D. Character Development and Ethics

- 1. Explain and demonstrate how character and behavior affects and influences the actions of others in the home, school, and community.
- 2. Describe and demonstrate appropriate character traits, social skills, and positive attitudes needed for the home, school, community, and workplace.
- 3. List problems and their causes, effects, and solutions that are faced in the home, school, and/or community.
- 4. Describe how personal ethics influence decision making.

*Big Idea*: Knowledge, and good use, of critical and creative problem solving skills serve as essential life tools.

<b>Essential Questions</b>	Enduring Understandings
<ul><li>How do people think?</li></ul>	<ul> <li>Specific skills including the attributes of</li> </ul>
• How do people learn?	observation, brainstorming, situation

- Why do we learn?
- When do we learn?
- What is discovery?
- How and when do people make discoveries?
- How do we define what a problem is?
- Why do we decide to solve a problem?
- When do we know we've made good, effective, or right choices about a solution to a problem?
- What is creativity?
- How is creativity linked to thinking?
- What are key questions that generate interesting thinking?

- analysis, if/then statements, looking for evidence of cause and effect, "what if?" statements, predicting outcomes, theorizing, and creating a variety of solutions, are the enduring elements for both critical and creative problem solving.
- Purposeful processes for problemsolving can assist us in every walk of life and in every aspect of learning.
- Problem solving skills, both critical and creative, generate new science, ideologies, tools and technologies which can advance and/or destroy societies and civilizations.
- Upper level thinking skills help us be better critical and creative reasoners and problem solvers.

## **Knowledge and Skills:**

- Observation
- Analysis
- Brainstorming
- Reflection
- Metacognition
- Sequencing
- Predicting
- Organizing: classifying, comparing, contrasting
- Theorizing
- Seeking evidence or proof
- Synthesizing
- Evaluating
- Designing
- Divergent thinking (idea generation <u>technique</u>, such as <u>brainstorming</u>, in which an idea is followed in several directions to <u>lead</u> to one or more new ideas, which in turn lead to still more ideas. In contrast to <u>convergent thinking</u>, which <u>aims</u> at solving a specific <u>problem</u>, divergent thinking is creative, open-ended thinking aimed at generating fresh views and <u>novel</u> solutions).
- Convergent thinking (a <u>problem</u> solving <u>technique</u> in which ideas from different <u>fields</u> or participants are brought together (synthesized) to find a single <u>optimum</u> solution to a clearly defined problem.)

## **Stage 2: Evidence of Understanding**

## **Great Meadows Benchmarks:**

## Students will:

- Draw conclusions about the roles of sensory observation to learning
- Identify evidence of cause and effect
- Compare and contrast

- Hypothesize and theorize
- Demonstrate deductive reasoning and logic
- Apply convergent and divergent thinking skills
- Analyze problems and generate sequences necessary to solve the problem
- Predict a variety of outcomes for given situations and problems
- Organize information
- Synthesize new information
- Evaluate solutions and reconstruct when necessary

## **Assessment Methods:**

- Teacher Observation
- Classroom discourse
- Hands-on activities
- Projects
- Rubrics
- Presentations

## Other Evidence and Student Self-Assessment:

Students will self-assess outcomes of each hands-on activity using a variety of methods including:

- Discussion
- Journal response
- De-brief
- Presentation

Grade 5 Performance Assessment for program inclusion

## **Stage 3: Learning Plan**

- W Students *will* know the expectations for this unit through:
  - Discussion
  - Analysis
  - Reflection of essential questions
- H This unit will *hook and hold* students' attention by applying skills using hands-on activities, books, puzzles, viewing excerpts of shows like **Mythbusters**, music and sound effects CDs.
- E The following learning *experiences* that will help the students *explore* the big ideas and essential questions:

(See Problem Solving Curriculum Binder)

<u>Days 1-12</u>: Observation through Sensory Learning: The basis of all learning, and hence problem solving, comes from our heightened ability to be keen observers.

- King Bidgood's in the Bathtub
- Definitions of sensory learning
- Sensory learning activities
- Scent: blindfold scent activity that leads to discussion regarding scent as link to memory
- <u>Touch</u>: generation of adjectives that describe touch and texture, then hands into bags for descriptions of unknown materials
- Sound effects CD: identification of sounds
- Taste: adjective generate for simple foods, then taste testing, make connections

using similes and metaphors

- <u>Visual</u>: <u>I Spy</u> books(teaches deductive reasoning), then students generate their own "I spy" pages with materials from the room and home. Students create their own rhyming couplet. Classmates solve, and final products are placed in Class I Spy binder.
- <u>Common Sense</u>: Fight or Flight Response/ tie to adrenalin in sports competitions; create Captain Obvious v. Dr. Oblivious, nefarious character, cartoons, or role-play scripts.

<u>Days 13- 19: Sequencing</u>: In problem solving, the sequence of events used in creating, or engaging in, a solution can, or not, lead to a successful resolution of the problem.

- Define sequencing. List/generate examples to share. Create evidence for importance of dissecting parts of a problem, prioritizing them, then attacking smaller components in order.
- Origami becomes vehicle for teaching sequencing. Items produced include pleated box, folded box with lid, fortune teller, gum wrapper chain, and fortune teller polyhedron. Substitutions may be made.
- Comic strip sections put together in sequence
- Create sequence for making toast, and do or pantomime directions as written by students.
- Give students daily activity (making bed, folding laundry, setting table) and have them create the sequence for attacking each "problem" and another group will re-enact according to written directions.

<u>Days 20-25 Cause and Effect</u>: Evidence of cause and effect aids in prediction of outcomes, critical thinking, assessing and analysis of information.

- Define cause and effect/ link to word "because"
- Discuss ease of identifying an effect due to its ease of observation (visible and measurable). Relate shows like CSI, etc., that show how to back track from effect to cause in order to identify source of problem (cause).
- Listen to "There Was an Old Lady who Swallowed a Fly", or read <u>The Napping House</u>, or <u>If a Moose Eats a Muffin</u>. Discuss, list or create a map of events for each.
- Discuss Domino effect, relate to chain reactions in science and snowball effect in inter-personal relationships, based on previous activity. Pass out dominos. Have students create a series of shapes as a group demonstrating cause and effect relationships with the dominos. Generate a series of solutions to keep the domino effect from occurring.
- Create "Cause and Effect" Theater Players: generate skits that use pantomime to show cause and effect in singular events or in chain-reaction events. Audience must be able to identify components of each beginning with the BECAUSE statement.(e.g. Because the banana peel was tossed carelessly aside, the little old lady slid into the police officer, who crashed into the trash can, that toppled into the street, that created a barrier, that stopped the Mack truck from barreling into the nuns who

were prayerfully entering the intersection...The banana peel saves the day.)

- Vertical Domino Challenge: applies all key problem solving skills used thus far: observation, analysis, sequencing, and cause and effect. Given a variety of school materials: dominos, sentence strip, length of tape and ruler, create a chain reaction that leads from top to bottom. Reinforce Problem Solving Recipe: Identify problem, look for underlying problems, and find evidence of cause and effect. Brainstorm for planning solutions, create a sequence to solve problem, try solution, evaluate outcome, go to plan b if necessary.
- Transcontinental Railroad: Activity combines cause and effect in history with cause and effect dominos. Read students picture books about Railroad. Use internet as additional research. Divide class in half. Half will be Irish immigrants on east coast, other half will be Chinese immigrants on west half. Put tape X on the floor. This designates where the two sections must meet (Promontory, Utah) Use Woodie Guthrie music, Aaron Copeland music, and Grand Canyon Suite as background music. If any section falls, they need to restart. Give time limit. When complete, one person from west, and one from east tips their starting domino, and they should meet somewhere in the middle. The golden spike has been set.

<u>Days 25-36:</u> <u>Deductive Reasoning</u>: The "mystery solving" skill for problem solving. Define deductive reasoning, relate to mathematics. Generate ways we use deductive reasoning in day to day life. Review previously learned problem solving skills.

- Play 20Q electronic game
- Create own 20 question game
- Play I spy in the classroom to reinforce deductive reasoning
- Read 5 minute mysteries
- Teach circle logic and matrix logic, work on logic puzzles
- Teach children elements of creating logic problems, have them work on creating their own. Scaffold activities and parts of each using teacher made materials (see binder), demonstrate solutions on boards
- Teach students how to use deductive reasoning on Sudoku puzzles
- Play teacher made activity: Who Dunnit: Game with teacher/staff photos and scenarios, and students solve

## Day 37-38 Review and Culminating Activity:

Jeopardy game in classroom as assessment, and Scavenger Hunt in building/grounds. Each uses prior knowledge and application and analysis of learned information.

- **R** Students will *reflect*, *rethink*, *revise*, *and refine* by:
  - Group discussion
  - Project presentations
  - Conferencing
- E Students will *exhibit* understanding through:
  - Making unique connections shared orally or in writing
  - Drawing conclusions

- Identifying cause and effect
- Predicting outcomes
- Sharing hypotheses
- Classifying, comparing and contrasting
- Creating new and unique problems or solutions for large group solutions or problems
- Providing evidence for thinking and conclusions

## T Differentiation opportunities to *tailor* learning will include:

- Individually tailored activities
- Small group v. large group v. individual work
- Individual choice allowed for solving problems
- Questioning and response techniques

## O Organizational and sequencing considerations include:

- Brainstorming
- Classification of learning styles
- Creation of charts and Venn diagrams for elements of problem solving.

## **Time Allotment:** 40 minutes; 60 days

## **Resources:**

## **Student Materials:**

- Arts and craft materials
- Dominos
- Masking tape
- Newspaper

## Technology:

- Overhead projector
- CD player
- Video/DVD player

## Teaching Materials:

- Posters
- Picture books that demonstrate specific problem solving skills like cause and effect: <u>The</u>

## Napping House, If You Give a Moose a Muffin

deductive reasoning: King Bidgood's in the Bathtub

convergent thinking: Aesop's Fables

divergent thinking: The True Story of the 3 Little Pigs

observation skills/deductive reasoning: **I Spy** 

- Teacher made materials, hand-outs and activities
- Sound Effect and classical music CDs (Aaron Copeland, Holst, Guthrie, etc.)

## Teaching Resources:

- Logic problems
- Sudoku puzzles
- Clue
- Red-Herring puzzles
- 5 Minute Mysteries
- Lateral thinking puzzles

## Great Meadows Regional School District Gifted/Talented Education Grade Level: 6

## **Stage 1: Desired Results**

**Topic: Create-A-Culture** 

Core Curriculum Content Number and Strands

STANDARD 1.2 (CREATION AND PERFORMANCE) ALL STUDENTS WILL UTILIZE THOSE SKILLS, MEDIA, METHODS, AND TECHNOLOGIES APPROPRIATE TO EACH ART FORM IN THE CREATION, PERFORMANCE, AND PRESENTATION OF DANCE, MUSIC, THEATER, AND VISUAL ART.

#### 1.2.6 C.Theater:

- Create characterizations in context through manipulation of vocal and physical qualities and circumstances.
- 3. Collaboratively plan and execute group scenes stemming from improvisation.

STANDARD 3.1 (READING) ALL STUDENTS WILL UNDERSTAND AND APPLY THE KNOWLEDGE OF SOUNDS, LETTERS, AND WORDS IN WRITTEN ENGLISH TO BECOME INDEPENDENT AND FLUENT READERS, AND WILL READ A VARIETY OF MATERIALS AND TEXTS WITH FLUENCY AND COMPREHENSION.

#### 3.1.5 F. Vocabulary and Concept Development:

- 4. Use a grade-level appropriate dictionary independently to define unknown words.
- 5. Use a thesaurus to identify alternative word choices and meanings.

## 3.1.5 G. Comprehension Skills and Response to Text

- 3. Use cause and effect and sequence of events to gain meaning.
- 4. Anticipate and construct meaning from text by making conscious connections to self, an author, and others.

STANDARD 3.3 (SPEAKING) ALL STUDENTS WILL SPEAK IN CLEAR, CONCISE, ORGANIZED LANGUAGE THAT VARIES IN CONTENT AND FORM FOR DIFFERENT AUDIENCES AND PURPOSES.

#### 3.3.8 A. Discussion (small group and whole class)

- 1. Support a position, acknowledging opposing views.
- 2. Present ideas and opinions spontaneously in response to a topic or other speakers.
- 3. Apply rules for cooperative or whole class debate on a controversial issue.
- 4. Define group roles using consensus to ensure task is understood and completed.
- 5. Participate in a formal debate (e.g., panel discussion).
- 6. Respond orally to literature.
- 7. Participate in class discussions appropriately.

## 3.3.8 B. Questioning (Inquiry) and Contributing

- 1. Paraphrase others' comments to clarify viewpoints.
- 2. Question to clarify others' opinions.
- 3. Integrate relevant information regarding issues and problems from group discussions and interviews for reports, issues, projects, debates, and oral presentations.
- 4. Solve a problem or understand a task through group cooperation.

#### 3.3.8 D. Oral Presentation

- 1. Use writing to prompt discussion and enhance planning of formal and informal presentations.
- 2. Use visual aids, media, and/or technology to support oral communication.
- 3. Give oral presentations to different audiences for various purposes, such as summaries of books and articles, narratives, and persuasive topics, research projects, and extemporaneous/impromptu, dramatic speeches.
- 4. Acknowledge the audience with eye contact and use appropriate verbal responses to clarify questions and inquiries.
- 5. Incorporate peer feedback and teacher suggestions for revisions in content, organization, and delivery.
- 6. Use speaking techniques, including voice modulation, inflection, tempo, enunciation, and eye contact for effective presentations.
- 7. Use a scoring rubric to prepare, evaluate, and improve the oral presentations of self and others.
- 8. Read aloud with fluency.

## STANDARD 3.4 (LISTENING) ALL STUDENTS WILL LISTEN ACTIVELY TO INFORMATION FROM A VARIETY OF SOURCES IN A VARIETY OF SITUATIONS.

## 3.4.6 A. Active Listening

- 1. Listen actively for a variety of purposes such as enjoyment and obtaining information.
- 2. Listen attentively and critically to a variety of speakers.
- 3. Acknowledge the speaker through eye contact and use appropriate feedback and questions to clarify the speaker's message.
- 4. Recognize and analyze persuasive techniques while listening.
- 5. Recognize the rich and varied language of literature (e.g., listen to a recording of poetry or classic literature).
- 6. Listen to determine a speaker's purpose, attitude, and perspective.

## 3.4.6 B. Listening Comprehension

- 1. Demonstrate competence in active listening through responding to a story, interview, or oral report (e.g., summarizing, reacting, retelling).
- 2. Demonstrate competence in active listening by interpreting and applying received information to new situations and in solving problems.
- 3. Ask pertinent questions, take notes, and draw conclusions based on information presented.
- 4. Make inferences based on an oral report or presentation.
- 5. Follow three-and four-step oral directions.

STANDARD 5.1 (SCIENTIFIC PROCESSES) ALL STUDENTS WILL DEVELOP PROBLEM-SOLVING, DECISION-MAKING AND INQUIRY SKILLS, REFLECTED BY FORMULATING USABLE QUESTIONS AND HYPOTHESES, PLANNING EXPERIMENTS, CONDUCTING SYSTEMATIC OBSERVATIONS, INTERPRETING AND ANALYZING DATA, DRAWING CONCLUSIONS, AND COMMUNICATING RESULTS.

#### 5.1.8 A. Habits of Mind

- 1. Evaluate the strengths and weaknesses of data, claims, and arguments.
- 2. Communicate experimental findings to others.
- 3. Recognize that the results of scientific investigations are seldom exactly the same and that replication is often necessary.
- 4. Recognize that curiosity, skepticism, open-mindedness, and honesty are attributes of scientists.

#### 5.1.8 B. Inquiry and Problem Solving

- 1. Identify questions and make predictions that can be addressed by conducting investigations.
- 2. Design and conduct investigations incorporating the use of a control.
- 3. Collect, organize, and interpret the data that result from experiments.

STANDARD 6.1 (SOCIAL STUDIES SKILLS) ALL STUDENTS WILL UTILIZE HISTORICAL THINKING, PROBLEM SOLVING, AND RESEARCH SKILLS TO MAXIMIZE THEIR UNDERSTANDING OF CIVICS, HISTORY, GEOGRAPHY, AND ECONOMICS

#### 6.1.8 A. Social Studies Skills

- 1. Analyze how events are related over time.
- 2. Use critical thinking skills to interpret events, recognize bias, point of view, and context.
- 5. Examine current issues, events, or themes and relate them to past events.
- 6. Formulate questions based on information needs.
- 11. Summarize information in written, graphic, and oral formats.

STANDARD 6.3 (WORLD HISTORY) ALL STUDENTS WILL DEMONSTRATE KNOWLEDGE OF WORLD HISTORY IN ORDER TO UNDERSTAND LIFE AND EVENTS IN THE PAST AND HOW THEY RELATE TO THE PRESENT AND THE FUTURE.

STANDARD 6.5 (ECONOMICS) ALL STUDENTS WILL ACQUIRE AN UNDERSTANDING OF KEY ECONOMIC PRINCIPLES.

STANDARD 8.2 (TECHNOLOGY EDUCATION) ALL STUDENTS WILL DEVELOP AN UNDERSTANDING OF THE NATURE AND IMPACT OF TECHNOLOGY, ENGINEERING, TECHNOLOGICAL DESIGN, AND THE DESIGNED WORLD AS THEY RELATE TO THE INDIVIDUAL, SOCIETY, AND THE ENVIRONMENT.

#### 8.2.8 B. Design Process and Impact Assessment

- 1. Demonstrate and explain how the design process is not linear.
- 2. Use hands on activities to analyze products and systems to determine how the design process was applied to create the solution.
- 3. Identify a technological problem and use the design process to create an appropriate solution.
- 4. Describe how variations in resources can affect solutions to a technological problem.
- 5. Select and safely use appropriate tools and materials in analyzing, designing, modeling or making a technological product, system or environment.

## STANDARD 9.2: (CONSUMER, FAMILY, AND LIFE SKILLS) ALL STUDENTS WILL DEMONSTRATE CRITICAL LIFE SKILLS IN ORDER TO BE FUNCTIONAL MEMBERS OF SOCIETY.

#### 9.2.8 A. Critical Thinking

- 1. Communicate, analyze data, apply technology, and problem solve.
- 2. Describe how personal beliefs and attitudes affect decision-making.
- 3. Identify and assess problems that interfere with attaining goals.
- 4. Recognize bias, vested interest, stereotyping, and the manipulation and misuse of information.
- 5. Practice goal setting and decision-making in areas relative to life skills.

## 9.2.8 B. Self-Management

2. Demonstrate responsibility for personal actions and contributions to group activities.

#### 9.2.8 C. Interpersonal Communication

- 1. Demonstrate respect and flexibility in interpersonal and group situations.
- 2. Organize thoughts to reflect logical thinking and speaking.
- 3. Work cooperatively with others to solve a problem.
- 4. Demonstrate appropriate social skills within group activities.
- 5. Practice the skills necessary to avoid physical and verbal confrontation in individual and group settings.
- 6. Participate as a member of a team and contribute to group effort.

## 9.2.8 D. Character Development and Ethics

1. Explain and demonstrate how character and behavior affects and influences the actions of others in the

- home, school, and community.
- 2. Describe and demonstrate appropriate character traits, social skills, and positive attitudes needed for the home, school, community, and workplace.
- 3. List problems and their causes, effects, and solutions that are faced in the home, school, and/or community.
- 4. Describe how personal ethics influence decision making.

**Big Idea:** The decisions made by humans directly impact the growth, prosperity, and success, or decline and fall, of social groups and civilizations.

<b>Essential Questions</b>	Enduring Understandings
<ul> <li>What is essential for survival?</li> <li>What systems are universal to man?</li> <li>How has the human race evolved and changed?</li> <li>Why do civilizations develop at different rates?</li> <li>Why do you think some civilizations grow and prosper and others do not?</li> <li>What elements lead to the demise of civilizations?</li> </ul>	<ul> <li>Civilizations grow and prosper because of strong systems.</li> <li>The success and prosperity of civilizations and cultures is dependent upon the people in them.</li> <li>Civilizations are successful because of the citizens' ability to solve problems critically and creatively.</li> </ul>

## **Knowledge and Skills:**

- Observation
- Research
- Imagination
- Analysis
- Brainstorming
- Reflection
- Sequencing
- Predicting
- Organizing: classifying, comparing, contrasting
- Theorizing
- Seeking evidence or proof
- Synthesizing
- Evaluating
- Designing
- Divergent thinking (idea generation <u>technique</u>, such as <u>brainstorming</u>, in which an idea is followed in several directions to <u>lead</u> to one or more new ideas, which in turn lead to still more ideas. In contrast to <u>convergent thinking</u>, which <u>aims</u> at solving a specific <u>problem</u>, divergent thinking is creative, open-ended thinking aimed at generating fresh views and <u>novel</u> solutions).
- Convergent thinking (a <u>problem</u> solving <u>technique</u> in which ideas from different <u>fields</u> or participants are brought together (synthesized) to find a single <u>optimum</u> solution to a clearly defined problem.
- Map skills
- Math skills: measurement, scale, ratio and proportion
- Language Arts skills: writing, reading, and speaking

## **Stage 2: Evidence of Understanding**

## **Great Meadows Benchmarks:**

## Students will:

- Define terms relating to sociology: social anthropology, culture, civilization, social systems: religion, science, superstition, commerce, trade, industry, hierarchy, family, ritual and ceremony, tradition, communication, tools and technology, specialization, gender roles, education
- Understand the influence of the five themes of geography on civilizations relating specifically to food, clothing, shelter, and technology
- Discover and communicate the interconnectedness of social systems within a culture/civilization
- Analyze the roles of leadership and/or hierarchy in cultures and civilizations
- Compare and contrast a variety of present day cultures to those in the past
- Categorize key elements in identifying successful cultures
- Identify components that lead to the downfall of cultures
- Analyze the role of religion, superstition, myth, and folklore in cultures
- Generate theories on development of fine arts in cultures and civilizations

## **Assessment Methods:**

- Game responses
- Discussion
- Journals
- Charts, graphs, maps
- Projects
- Rubrics
- Presentations
- Portfolios

## **Other Evidence and Student Self-Assessment:**

Stage 3: Learning Plan			
W	Students will know the expectations for this unit through:		
	• Stating		
	Reviewing		
	• Discussing		
	Reflection of essential questions		
H	This unit will <i>hook and hold</i> students' attention by reading ancient creation myths of		
	various civilizations, show pictures of extraordinary uninhabited landscapes, read		
	excerpts of science fiction exploration/or view segments of science fiction adventures		
	like Star Trek, generating a civilization of their own design.		
$\mathbf{E}$	The following learning <i>experiences</i> that will help the students <i>explore</i> the big ideas and		
	essential questions:		
	Define key terms		
	Discuss each essential question, and create posters as visual reminders for		
	lessons		
	Students will become social anthropologists who become the discoverers of a		

**Great Meadows Regional** new civilization • From teacher made lists, randomly draw a location, time, and climatic zone, and natural resources readily available to each (team/individual/small group) for student made civilization Create map of location • Create systems for civilization: religion, custom, tradition, government • Create family roles • Create games and toys of children • Develop educational rules Describe the government Decide food types, and tools for growing, harvesting, preparing Develop shelters • Create commerce • Create monetary system • Create language Create fine arts: music, story-telling, poetry, dance • Create tools and technologies • Write creation myth • Generate history/timeline for their civilization • Build a variety of artifacts for above elements • Display in a museum R Students will reflect, rethink, revise, and refine by: **Journaling** Development of ideas in writing and speaking Brainstorming • Creation of artifacts Students will *exhibit* understanding through:  $\mathbf{E}$ Creation of cultural components Ouestions students ask the teacher and each other Discussion Writing in journals Notes **Power Point** Hands-on construction of artifacts Differentiation opportunities to *tailor* learning will include: • Variety of choices in creation of artifacts Т • Format of presentation • Individual v. partner v. small group **Organizational** and sequencing considerations include: 0 Note taking Map making Unit folders Brainstorming

**Time Allotment:** 40 - 60 minutes; 45 days

## **Resources:**

## **Student Materials:**

- Arts and craft materials
- Found objects
- Journals
- Folders

## Technology:

- Internet
- Library
- National Geographic and Smithsonian
- News articles

## **Teaching Materials:**

- Internet Research
- Teacher-created activities
- Scaffold directions

## Teaching Resources:

- Internet
- Library
- Research
- Periodicals
- News articles

## Great Meadows Regional School District Gifted/Talented Education Grade Level: 7

## **Stage 1: Desired Results**

**Topic: The World According To Ben** 

Core Curriculum Content Number and Strands

STANDARD 1.2 (CREATION AND PERFORMANCE) ALL STUDENTS WILL UTILIZE THOSE SKILLS, MEDIA, METHODS, AND TECHNOLOGIES APPROPRIATE TO EACH ART FORM IN THE CREATION, PERFORMANCE, AND PRESENTATION OF DANCE, MUSIC, THEATER, AND VISUAL ART.

#### 1.2.6 C. Theater

- 2. Create characterizations in context through manipulation of vocal and physical qualities and circumstances.
- 3. Collaboratively plan and execute group scenes stemming from improvisation.

STANDARD 3.1 (READING) ALL STUDENTS WILL UNDERSTAND AND APPLY THE KNOWLEDGE OF SOUNDS, LETTERS, AND WORDS IN WRITTEN ENGLISH TO BECOME INDEPENDENT AND FLUENT READERS, AND WILL READ A VARIETY OF MATERIALS AND TEXTS WITH FLUENCY AND COMPREHENSION.

#### 3.1.5 F. Vocabulary and Concept Development

- 4. Use a grade-level appropriate dictionary independently to define unknown words.
- 5. Use a thesaurus to identify alternative word choices and meanings.

#### 3.1.5 G. Comprehension Skills and Response to Text

- 3. Use cause and effect and sequence of events to gain meaning.
- 4. Anticipate and construct meaning from text by making conscious connections to self, an author, and others.

STANDARD 3.2 (WRITING) ALL STUDENTS WILL WRITE IN CLEAR, CONCISE, ORGANIZED LANGUAGE THAT VARIES INB. WRITING AS A PRODUCT (RESULTING IN A FORMAL PRODUCT OR PUBLICATION)

## 3.2.8 B. Writing as a Product (resulting in a formal product or publication)

- 1. Extend knowledge of specific characteristics, structures, and appropriate voice and tone of selected genres and use this knowledge in creating written work, considering the purpose, audience, and context of the writing.
- 2. Write various types of prose, such as short stories, biographies, autobiographies, or memoirs that contain narrative elements.
- 3. Write reports and subject-appropriate nonfiction pieces across the curriculum based on research and including citations, quotations, and a works cited page.
- 4. Write a range of essays, including persuasive, speculative (picture prompt), descriptive, personal, or issuebased.

## 3.2.8 C. Mechanics, Spelling, and Handwriting

- 1. Use Standard English conventions in all writing, such as sentence structure, grammar and usage, punctuation, capitalization, and spelling.
- 2. Use a variety of sentence types correctly, including combinations of independent and dependent clauses, prepositional and adverbial phrases, and varied sentence openings to develop a lively and effective personal style.
- 3. Understand and use parallelism, including similar grammatical forms, to present items in a series or to

organize ideas for emphasis.

- 5. Use transition words to reinforce a logical progression of ideas.
- 6. Edit writing for correct grammar, usage, capitalization, punctuation, and spelling.
- Use a variety of reference materials, such as a dictionary, thesaurus, grammar reference, and/or internet/software resources to edit written work.

# STANDARD 3.3 (SPEAKING) ALL STUDENTS WILL SPEAK IN CLEAR, CONCISE, ORGANIZED LANGUAGE THAT VARIES IN CONTENT AND FORM FOR DIFFERENT AUDIENCES AND PURPOSES.

#### 3.3.8 A. Discussion (small group and whole class)

- 1. Support a position, acknowledging opposing views.
- 2. Present ideas and opinions spontaneously in response to a topic or other speakers.
- 3. Apply rules for cooperative or whole class debate on a controversial issue.
- 4. Define group roles using consensus to ensure task is understood and completed.
- 5. Participate in a formal debate (e.g., panel discussion).
- 6. Respond orally to literature.
- 7. Participate in class discussions appropriately.

## 3.3.8 B. Questioning (Inquiry) and Contributing

- 1. Paraphrase others' comments to clarify viewpoints.
- 2. Question to clarify others' opinions.
- 3. Integrate relevant information regarding issues and problems from group discussions and interviews for reports, issues, projects, debates, and oral presentations.
- 4. Solve a problem or understand a task through group cooperation.

#### 3.3.8 D. Oral Presentation

- 1. Use writing to prompt discussion and enhance planning of formal and informal presentations.
- 2. Use visual aids, media, and/or technology to support oral communication.
- 3. Give oral presentations to different audiences for various purposes, such as summaries of books and articles, narratives, and persuasive topics, research project, and extemporaneous/impromptu, dramatic speeches.
- 4. Acknowledge the audience with eye contact and use appropriate verbal responses to clarify questions and inquiries.
- 5. Incorporate peer feedback and teacher suggestions for revisions in content, organization, and delivery.
- 6. Use speaking techniques, including voice modulation, inflection, tempo, enunciation, and eye contact for effective presentations.
- 7. Use a scoring rubric to prepare, evaluate, and improve the oral presentations of self and others.
- 8. Read aloud with fluency.

## STANDARD 3.4 (LISTENING) ALL STUDENTS WILL LISTEN ACTIVELY TO INFORMATION FROM A VARIETY OF SOURCES IN A VARIETY OF SITUATIONS.

#### 3.4.6 A. Active Listening

- 1. Listen actively for a variety of purposes such as enjoyment and obtaining information.
- 2. Listen attentively and critically to a variety of speakers.
- 3. Acknowledge the speaker through eye contact and use appropriate feedback and questions to clarify the speaker's message.
- 4. Recognize and analyze persuasive techniques while listening.
- 5. Recognize the rich and varied language of literature (e.g., listen to a recording of poetry or classic literature).
- 6. Listen to determine a speaker's purpose, attitude, and perspective.

#### 3.4.6 B. Listening Comprehension

- 1. Demonstrate competence in active listening through responding to a story, interview, or oral report (e.g., summarizing, reacting, retelling).
- 2. Demonstrate competence in active listening by interpreting and applying received information to new

situations and in solving problems.

- 3. Ask pertinent questions, take notes, and draw conclusions based on information presented.
- 4. Make inferences based on an oral report or presentation.
- 5. Follow three-and four-step oral directions.

## STANDARD 3.5 (VIEWING AND MEDIA LITERACY) ALL STUDENTS WILL ACCESS, VIEW, EVALUATE, AND RESPOND TO PRINT, NONPRINT, AND ELECTRONIC TEXTS AND RESOURCES.

#### 3.5.8 A. Constructing Meaning

- 1. Analyze aspects of print and electronic texts that support the author's point of view, opinion, or attitude.
- 2. Analyze the use of elements (e.g., setting plot, theme, characters) to understand media presentations, such as film, video, television, and theatrical productions.
- 3. Analyze and respond to visual and print messages (e.g., humor, irony, metaphor) and recognize how words, sounds, and still or moving images are used in each medium to convey the intended messages.
- 4. Compare and contrast how the various forms of media (e.g. newspapers, radio, television, internet news outlets) cover the same topic.

#### 3.5.8 B. Visual and Verbal Messages

- 1. Analyze and compare the pros and cons of visual and verbal advertising.
- 2. Evaluate various media messages for credibility.
- 3. Develop criteria/rubric to judge the effectiveness of visual and verbal presentations.
- 4. Make inferences based upon the content of still images.
- 5. Compare and contrast media sources, such as film and book versions of a story

STANDARD 5.1 (SCIENTIFIC PROCESSES) ALL STUDENTS WILL DEVELOP PROBLEM-SOLVING, DECISION-MAKING AND INQUIRY SKILLS, REFLECTED BY FORMULATING USABLE QUESTIONS AND HYPOTHESES, PLANNING EXPERIMENTS, CONDUCTING SYSTEMATIC OBSERVATIONS, INTERPRETING AND ANALYZING DATA, DRAWING CONCLUSIONS, AND COMMUNICATING RESULTS.

#### 5.1.8 A. Habits of Mind

- 1. Evaluate the strengths and weaknesses of data, claims, and arguments.
- 2. Communicate experimental findings to others.
- 3. Recognize that the results of scientific investigations are seldom exactly the same and that replication is often necessary.
- 4. 4.Recognize that curiosity, skepticism, open-mindedness, and honesty are attributes of scientists.

## 5.1.8 B. Inquiry and Problem Solving

- 1. Identify questions and make predictions that can be addressed by conducting investigations.
- 2. Design and conduct investigations incorporating the use of a control.
- 3. Collect, organize, and interpret the data that result from experiments.

STANDARD 6.1 (SOCIAL STUDIES SKILLS) ALL STUDENTS WILL UTILIZE HISTORICAL THINKING, PROBLEM SOLVING, AND RESEARCH SKILLS TO MAXIMIZE THEIR UNDERSTANDING OF CIVICS, HISTORY, GEOGRAPHY, AND ECONOMICS.

## 6.1.8 A. Social Studies Skills

- 1. Analyze how events are related over time.
- 2. Use critical thinking skills to interpret events, recognize bias, point of view, and context.
- 5. Examine current issues, events, or themes and relate them to past events.
- 6. Formulate questions based on information needs.
- 11. Summarize information in written, graphic, and oral formats.

STANDARD 8.2 (TECHNOLOGY EDUCATION) ALL STUDENTS WILL DEVELOP AN UNDERSTANDING OF THE NATURE AND IMPACT OF TECHNOLOGY, ENGINEERING,

## TECHNOLOGICAL DESIGN, AND THE DESIGNED WORLD AS THEY RELATE TO THE INDIVIDUAL. SOCIETY. AND THE ENVIRONMENT.

#### 8.2.8 B. Design Process and Impact Assessment

- 1. Demonstrate and explain how the design process is not linear.
- 2. Use hands on activities to analyze products and systems to determine how the design process was applied to create the solution.
- 3. Identify a technological problem and use the design process to create an appropriate solution.
- 4. Describe how variations in resources can affect solutions to a technological problem.
- 5. Select and safely use appropriate tools and materials in analyzing, designing, modeling or making a technological product, system or environment.

## STANDARD 9.2: (CONSUMER, FAMILY, AND LIFE SKILLS) ALL STUDENTS WILL DEMONSTRATE CRITICAL LIFE SKILLS IN ORDER TO BE FUNCTIONAL MEMBERS OF SOCIETY.

#### 9.2.8 A. Critical Thinking

- 1. Communicate, analyze data, apply technology, and problem solve.
- 2. Describe how personal beliefs and attitudes affect decision-making.
- 3. Identify and assess problems that interfere with attaining goals.
- 4. Recognize bias, vested interest, stereotyping, and the manipulation and misuse of information.
- 5. Practice goal setting and decision-making in areas relative to life skills.

#### 9.2.8 B. Self-Management

2. Demonstrate responsibility for personal actions and contributions to group activities.

#### 9.2.8 C. Interpersonal Communication

- 1. Demonstrate respect and flexibility in interpersonal and group situations.
- 2. Organize thoughts to reflect logical thinking and speaking.
- 3. Work cooperatively with others to solve a problem.
- 4. Demonstrate appropriate social skills within group activities.
- 5. Practice the skills necessary to avoid physical and verbal confrontation in individual and group settings.
- 6. Participate as a member of a team and contribute to group effort.

#### 9.2.8 D. Character Development and Ethics

- 1. Explain and demonstrate how character and behavior affects and influences the actions of others in the home, school, and community.
- 2. Describe and demonstrate appropriate character traits, social skills, and positive attitudes needed for the home, school, community, and workplace.
- 3. List problems and their causes, effects, and solutions that are faced in the home, school, and/or community.
- 4. Describe how personal ethics influence decision making.

Big Idea: An individual's character, personality, ideas, effort, and choices can alter the nature of history.

Essential Questions	Enduring Understandings
<ul> <li>What value or importance can be attached to imagination? Knowledge? Is one better than the other? Why or Why not?</li> <li>Of these two, which is your preference: to observe or to participate? Why?</li> <li>What are the results of risk taking?</li> <li>What is failure? How do we measure it? Can good things ever come from</li> </ul>	<ul> <li>Curiosity drives learning.</li> <li>Fear is a component of failure.</li> <li>Risk-taking is easier from some people than others.</li> <li>Risk-taking is used in problem solving.</li> <li>Good things can come from failures.</li> <li>Bad things can come from success.</li> <li>Imagination and creativity are essential components of thinking and problem solving.</li> </ul>

failure?

- What is success? How is success measured? Do bad things ever come from successes?
- What are the qualities of intelligence or genius?
- Of all the talents imaginable, which is the most important?
- Curiosity, love of learning, bravery, courage, humor, and genius are character elements that made Ben Franklin unique.
- Ben Franklin was a great thinker, a great leader, and a clever scientist and business entrepreneur.

## **Knowledge and Skills:**

- Analyze information
- Demonstrate understanding of new information
- Organize data
- Predict outcomes
- Set goals
- Create sequences
- Hypothesize
- Evaluate outcomes
- Synthesize information

## **Stage 2: Evidence of Understanding**

## **Great Meadows Benchmarks:**

#### Students will:

- Research and investigate elements of creativity and imagination
- Identify specific characteristics, favorable and unfavorable, of Ben Franklin's personality and how these attributes effected change in his time
- Compile lists of Franklin's inventions/creations, then, generate rationale for classification of success or failure
- Compare and contrast critical problem solving and creative problem solving, then classify Franklin's inventions and word according to each
- Generate surveys regarding characteristics of genius, collect data, and analyze information
- Make observations regarding personality traits of creativity, talent and genius
- Understand that from those to whom much has been given, much is expected
- Generate a list of note-worthy people and categorize their personal characteristics v. Franklin
- Compare and contrast themselves v. Franklin, set goals
- Understand that, from those to whom much has been given, much is expected

## **Assessment Methods:**

- Brainstorming
- Discussion
- Venn Diagram
- Role Play
- Reading
- Journal prompts
- Research
- Presentations

- Compare and contrast
- Projects

## Other Evidence and Student Self-Assessment:

## **Stage 3: Learning Plan**

- W Students *will* know the expectations for this unit through:
  - Stating
  - Reviewing
  - Reflection of essential questions
- H This unit will *hook and hold* students' attention by:
  - Reading literature about Franklin
  - Reflecting on Franklin's life philosophies through Poor Richard's Almanac
  - Viewing Franklin's life on tape
  - Speaking about Franklin through re-enactment and dramatization of some of his most famous speeches/quotes
- E The following learning *experiences* that will help the students *explore* the big ideas and essential questions:
  - Research on intelligence and creativity
  - Research on genius
  - Charts on intelligence and creativity
  - Video on Ben Franklin
  - Compare and contrast life before and after Franklin's inventions/systems were employed
  - Examine the cause/effect of Franklin's early life to his transition into politician and world citizen
  - Analyze Franklin's role as French Ambassador
  - Analyze the pros and cons of Franklin's choices in life, and how these are evidence of his human nature
  - Poetry relating stories of Ben Franklin
  - Internet Web quest on Franklin
  - Analysis of Franklin's personality traits, learning characteristics, thinking style, actions and choices; categorization of other "famous" people under same traits, and then, students put themselves in categories
  - Reading and discussion of <u>Poor Richard's Almanac</u>, then re-writing and warping his words
  - Book-binding to create students' personal journals
  - Re-creation of Franklin's inventions and ideas
  - Dioramas of Franklin's Philadelphia
  - Creative demonstrations of student's understanding of what intelligence and creativity are as a piece of art, written communication, video, music, role-play, or game
- **R** Students will *reflect*, *rethink*, *revise*, *and refine* by:
  - Brainstorming
  - Group discussion, creation of if/then statements regarding Franklin's innovations
  - Investigate evidence of cause and effect regarding Franklin's creativity.

Great N	Meadows Regional		
	imagination, opportunity and choices		
E	Students will <i>exhibit</i> understanding through:		
	Class Discussion		
	• Debate		
	Oration		
	Compare contrast charts		
	Book chats		
	Venn diagrams		
	Journal prompts		
	• Poetry		
	Warped words of Wisdom ala Poor Richard		
	Skits and role play.		
T	Differentiation opportunities to <i>tailor</i> learning will include:		
	Pre-Assessment of knowledge		
	Hands-on learning		
	Educational games		
	Game show assessments		
	Scaffold directions and activities will be available for those students needing		
	them.		
	Students will make choices based on a menu of activities		
	Students may choose to work collaboratively or individually for some aspects of		
	work		
	Student activities will incorporate a variety of learning-styles that will allow		
	them to feel most comfortable, and/or stretch their comfort zone.		
0	Organizational and sequencing considerations include:		
	Note taking		
	Visual organizers		
	• Flowcharts, unit folders		
	Time-lines		
T: A	Natmonts 40 minutos 28 20 days		

## **Time Allotment:** 40 minutes; 28-30 days

## **Resources:**

**Student Materials:** 

- Arts and craft supplies
- Copies of Poor Richard's Almanac
- Internet Access
- Video
- Web Quests
- Franklin's biography
- Journal

## Technology:

- Internet
- Video recorder
- DVD player
- CD player

## Teaching Materials:

- Social Studies Text
- Franklin Video
- Library books
- Research on Franklin
- Poor Richard's Almanac
- Maps of Philadelphia
- Autobiography and Biography of Franklin
- Web Quest
- Period music

## Teaching Resources:

- Library
- Internet

## Great Meadows Regional School District Gifted/Talented Education Grade Level: 7

## **Stage 1: Desired Results**

## Topic: History's Gadgets and Gizmos

Core Curriculum Content Number and Strands

STANDARD 1.2 (CREATION AND PERFORMANCE) ALL STUDENTS WILL UTILIZE THOSE SKILLS, MEDIA, METHODS, AND TECHNOLOGIES APPROPRIATE TO EACH ART FORM IN THE CREATION, PERFORMANCE, AND PRESENTATION OF DANCE, MUSIC, THEATER, AND VISUAL ART.

## 1.2.6 C. Theater

- 2. Create characterizations in context through manipulation of vocal and physical qualities and circumstances.
- 3. Collaboratively plan and execute group scenes stemming from improvisation.

STANDARD 3.1 (READING) ALL STUDENTS WILL UNDERSTAND AND APPLY THE KNOWLEDGE OF SOUNDS, LETTERS, AND WORDS IN WRITTEN ENGLISH TO BECOME INDEPENDENT AND FLUENT READERS, AND WILL READ A VARIETY OF MATERIALS AND TEXTS WITH FLUENCY AND COMPREHENSION.

## 3.1.5 F. Vocabulary and Concept Development

- 4. Use a grade-level appropriate dictionary independently to define unknown words.
- 5. Use a thesaurus to identify alternative word choices and meanings.

## 3.1.5 G. Comprehension Skills and Response to Text

- 3. Use cause and effect and sequence of events to gain meaning.
- 4. Anticipate and construct meaning from text by making conscious connections to self, an author, and others.

STANDARD 3.3 (SPEAKING) ALL STUDENTS WILL SPEAK IN CLEAR, CONCISE, ORGANIZED LANGUAGE THAT VARIES IN CONTENT AND FORM FOR DIFFERENT AUDIENCES AND PURPOSES.

## 3.3.8 A. Discussion (small group and whole class)

- 1. Support a position, acknowledging opposing views.
- 2. Present ideas and opinions spontaneously in response to a topic or other speakers.
- 3. Apply rules for cooperative or whole class debate on a controversial issue.
- 4. Define group roles using consensus to ensure task is understood and completed.
- 5. Participate in a formal debate (e.g., panel discussion).
- 6. Respond orally to literature.
- 7. Participate in class discussions appropriately.

## 3.3.8B. Questioning (Inquiry) and Contributing

- 1. Paraphrase others' comments to clarify viewpoints.
- 2. Question to clarify others' opinions.
- 3. Integrate relevant information regarding issues and problems from group discussions and interviews for reports, issues, projects, debates, and oral presentations.
- . Solve a problem or understand a task through group cooperation.

#### 3.3.8D. Oral Presentation

- 1. Use writing to prompt discussion and enhance planning of formal and informal presentations.
- 2. Use visual aids, media, and/or technology to support oral communication.
- 3. Give oral presentations to different audiences for various purposes, such as summaries of books and articles, narratives, and persuasive topics, research projects, and extemporaneous/impromptu, dramatic speeches.
- Acknowledge the audience with eye contact and use appropriate verbal responses to clarify
  questions and inquiries.
- Incorporate peer feedback and teacher suggestions for revisions in content, organization, and delivery.
- 6. Use speaking techniques, including voice modulation, inflection, tempo, enunciation, and eye contact for effective presentations.
- 7. Use a scoring rubric to prepare, evaluate, and improve the oral presentations of self and others.
- 8. Read aloud with fluency.

## STANDARD 3.4 (LISTENING) ALL STUDENTS WILL LISTEN ACTIVELY TO INFORMATION FROM A VARIETY OF SOURCES IN A VARIETY OF SITUATIONS.

#### 3.4.6A. Active Listening

- 1. Listen actively for a variety of purposes such as enjoyment and obtaining information.
- 2. Listen attentively and critically to a variety of speakers.
- 3. Acknowledge the speaker through eye contact and use appropriate feedback and questions to clarify the speaker's message.
- 4. Recognize and analyze persuasive techniques while listening.
- 5. Recognize the rich and varied language of literature (e.g., listen to a recording of poetry or classic literature).
- 6. Listen to determine a speaker's purpose, attitude, and perspective.

#### 3.4.6B. Listening Comprehension

- 1. Demonstrate competence in active listening through responding to a story, interview, or oral report (e.g., summarizing, reacting, retelling).
- 2. Demonstrate competence in active listening by interpreting and applying received information to new situations and in solving problems.
- 3. Ask pertinent questions, take notes, and draw conclusions based on information presented.
- 4. Make inferences based on an oral report or presentation.
- 5. Follow three-and four-step oral directions.

STANDARD 5.1 (SCIENTIFIC PROCESSES) ALL STUDENTS WILL DEVELOP PROBLEM-SOLVING, DECISION-MAKING AND INQUIRY SKILLS, REFLECTED BY FORMULATING USABLE QUESTIONS AND HYPOTHESES, PLANNING EXPERIMENTS, CONDUCTING SYSTEMATIC OBSERVATIONS, INTERPRETING AND ANALYZING DATA, DRAWING CONCLUSIONS, AND COMMUNICATING RESULTS.

#### 5.1.8A. Habits of Mind

- 1. Evaluate the strengths and weaknesses of data, claims, and arguments.
- 2. Communicate experimental findings to others.
- 3. Recognize that the results of scientific investigations are seldom exactly the same and that replication is often necessary.
- 4. Recognize that curiosity, skepticism, open-mindedness, and honesty are attributes of scientists.

## 5.1.8B. Inquiry and Problem Solving

- 1. Identify questions and make predictions that can be addressed by conducting investigations.
- 2. Design and conduct investigations incorporating the use of a control.
- 3. Collect, organize, and interpret the data that result from experiments.

STANDARD 5.7 (PHYSICS) ALL STUDENTS WILL GAIN AN UNDERSTANDING OF NATURAL LAWS AS THEY APPLY TO MOTION, FORCES, AND ENERGY TRANSFORMATIONS.

#### 5.7.6A. Motion and Forces

- 1. Recognize that an object at rest will remain at rest and an object moving in a straight line at a steady speed will continue to move in a straight line at a steady speed unless a net (unbalanced) force acts on it.
- 2. Recognize that motion can be retarded by forces such as friction and air resistance.
- 3. Recognize that everything on or near the Earth is pulled toward the Earth's center by gravitational force.

STANDARD 6.1 (SOCIAL STUDIES SKILLS) ALL STUDENTS WILL UTILIZE HISTORICAL THINKING, PROBLEM SOLVING, AND RESEARCH SKILLS TO MAXIMIZE THEIR UNDERSTANDING OF CIVICS, HISTORY, GEOGRAPHY, AND ECONOMICS

#### 6.1.8A. Social Studies Skills

- 1. Analyze how events are related over time.
- 2. Use critical thinking skills to interpret events, recognize bias, point of view, and context.
- 5. Examine current issues, events, or themes and relate them to past events.
- 6. Formulate questions based on information needs.
- 11. Summarize information in written, graphic, and oral formats.

STANDARD 8.2 (TECHNOLOGY EDUCATION) ALL STUDENTS WILL DEVELOP AN UNDERSTANDING OF THE NATURE AND IMPACT OF TECHNOLOGY, ENGINEERING, TECHNOLOGICAL DESIGN, AND THE DESIGNED WORLD AS THEY RELATE TO THE INDIVIDUAL, SOCIETY, AND THE ENVIRONMENT.

#### 8.2.8B. Design Process and Impact Assessment

- 1. Demonstrate and explain how the design process is not linear.
- 2. Use hands on activities to analyze products and systems to determine how the design process was applied to create the solution.
- 3. Identify a technological problem and use the design process to create an appropriate solution.
- 4. Describe how variations in resources can affect solutions to a technological problem.
- 5. Select and safely use appropriate tools and materials in analyzing, designing, modeling or making a technological product, system or environment.

STANDARD 9.2: (CONSUMER, FAMILY, AND LIFE SKILLS) ALL STUDENTS WILL DEMONSTRATE CRITICAL LIFE SKILLS IN ORDER TO BE FUNCTIONAL MEMBERS OF SOCIETY.

#### 9.2.8A. Critical Thinking

- 1. Communicate, analyze data, apply technology, and problem solve.
- 2. Describe how personal beliefs and attitudes affect decision-making.
- 3. Identify and assess problems that interfere with attaining goals.
- 4. Recognize bias, vested interest, stereotyping, and the manipulation and misuse of information.
- 5. Practice goal setting and decision-making in areas relative to life skills.

## 9.2.8B. Self-Management

2. Demonstrate responsibility for personal actions and contributions to group activities.

## 9.2.8C. Interpersonal Communication

- 1. Demonstrate respect and flexibility in interpersonal and group situations.
- 2. Organize thoughts to reflect logical thinking and speaking.
- 3. Work cooperatively with others to solve a problem.
- 4. Demonstrate appropriate social skills within group activities.
- Practice the skills necessary to avoid physical and verbal confrontation in individual and group settings.
- 6. Participate as a member of a team and contribute to group effort.

#### 9.2.8 D. Character Development and Ethics

1. Explain and demonstrate how character and behavior affects and influences the actions of others in the home, school, and community.

- 2. Describe and demonstrate appropriate character traits, social skills, and positive attitudes needed for the home, school, community, and workplace.
- 3. List problems and their causes, effects, and solutions that are faced in the home, school, and/or community.
- 4. Describe how personal ethics influence decision making.

## Big Idea: Tools and Technologies are society's agents of change.

	8	, E
	<b>Essential Questions</b>	<b>Enduring Understandings</b>
•	What connections do you have to	<ul> <li>Present and future technologies</li> </ul>
	your past?	depend upon their predecessors.
•	How is modern man the same as	<ul> <li>Tools and technologies are the direct</li> </ul>
	ancient man? Different?	result of human's need to solve
•	What are the building blocks that	problems.
	connect past to present?	<ul> <li>Tools and technologies advance and</li> </ul>
		change with civilizations
		advancements.

## **Knowledge and Skills:**

- Observation
- Research
- Imagination
- Analysis
- Brainstorming
- Reflection
- Sequencing
- Predicting
- Organizing: classifying, comparing, contrasting,
- Theorizing
- Seeking evidence or proof
- Synthesizing
- Evaluating
- Designing
- Divergent thinking (idea generation <u>technique</u>, such as <u>brainstorming</u>, in which an idea is followed in several directions to <u>lead</u> to one or more new ideas, which in turn lead to still more ideas. In contrast to <u>convergent thinking</u>, which <u>aims</u> at solving a specific <u>problem</u>, divergent thinking is creative, open-ended thinking aimed at generating fresh views and <u>novel</u> solutions).
- Convergent thinking (a <u>problem</u> solving <u>technique</u> in which ideas from different <u>fields</u> or participants are brought together (synthesized) to find a single <u>optimum</u> solution to a clearly defined problem.)

## **Stage 2: Evidence of Understanding**

## **Great Meadows Benchmarks:**

#### Students will:

- Generate a list of the most important tools made by man, then trace the evolution of these tools
- Review the six simple machines
- Create links of simple machines to creation and construction of *7 Ancient Wonders of the World*

- Research science behind catapults and trebuchets
- Apply research to construction
- Synthesize new and improved launchers
- Evaluate learning

# **Assessment Methods:**

- Projects
- Rubrics
- Presentations
- Portfolios

# Other Evidence and Student Self-Assessment:

# **Stage 3: Learning Plan**

- W Students *will* know the expectations for this unit through:
  - Stating
  - Reviewing
  - Discussing
  - Reflection of essential questions
- **H** This unit will *hook and hold* students' attention by:
  - Watching episodes of *Modern Marvels, Junkyard Wars*, and videos about 7 *Ancient Wonders of the World*
  - Discussion of tools of war
- E The following learning *experiences* that will help the students *explore* the big ideas and essential questions:
  - Create a cartoon or mural that traces the evolution of the most important machines
  - Generate a PowerPoint, poster, graphic organizer, or chart that demonstrates how tools were used to build the 7 Ancient Wonders of the World
  - Research medieval war tools
  - Build catapults and trebuchets
  - Blast the castle
- R Students will reflect, rethink, revise, and refine by:
  - Journaling
  - Development of ideas in writing, questioning, responding, and discussion
  - Brainstorming
  - Creation of tools
- E Students will *exhibit* understanding through:
  - Ouestions students ask the teacher and each other
  - Discussion
  - Project products
  - Notes
  - PowerPoint
  - Hands-on construction of tools
- T Differentiation opportunities to *tailor* learning will include:
  - Variety of choices
  - Format of construction of trebuchet/catapult

	Individual v. partner v. small group		
	• marviduar v. partner v. sman group		
О	Organizational and sequencing considerations include:		
	Note taking		
	Graphic organizers		
	Unit folders		
	Brainstorming		
T:	Allettre crete 40 minutes for 10 days		

# **Time Allotment:** 40 minutes for 10 days

# **Resources:**

# **Student Materials:**

- Arts and craft materials
- Found objects
- Marshmallows
- Clay
- Folders

# Technology:

- Internet
- Library
- PowerPoint

# **Teaching Materials:**

- Internet Research
- Teacher-created activities
- Scaffold directions

# Teaching Resources:

- Internet
- Library
- Research
- Backyard Ballistics
- Gadgets and Gizmos

# Great Meadows Regional School Distict Gifted/Talented Education Grades 7-8

# **Stage 1: Desired Results**

# **Topic: American Folk Art**

## Core Curriculum Content Number and Strands

STANDARD 1.2 (CREATION AND PERFORMANCE) ALL STUDENTS WILL UTILIZE THOSE SKILLS, MEDIA, METHODS, AND TECHNOLOGIES APPROPRIATE TO EACH ART FORM IN THE CREATION, PERFORMANCE, AND PRESENTATION OF DANCE, MUSIC, THEATER, AND VISUAL ART.

#### **1.2.6** C. Theater

- 2. Create characterizations in context through manipulation of vocal and physical qualities and circumstances.
- 3. Collaboratively plan and execute group scenes stemming from improvisation.

STANDARD 1.5 (HISTORY/CULTURE) ALL STUDENTS WILL UNDERSTAND AND ANALYZE THE ROLE, DEVELOPMENT, AND CONTINUING INFLUENCE OF THE ARTS IN RELATION TO WORLD CULTURES, HISTORY, AND SOCIETY.

# 1.5.8 A. Knowledge

- 1. Analyze how technological changes have influenced the development of the arts.
- Examine how the social and political environment influences artists in various social/historical/political contexts.

### 1.5.8 B. Skills

- 1. Identify the common artistic elements that help define a given historical period.
- 2. Discuss how cultural influences add to the understanding of works of art.

STANDARD 3.1 (READING) ALL STUDENTS WILL UNDERSTAND AND APPLY THE KNOWLEDGE OF SOUNDS, LETTERS, AND WORDS IN WRITTEN ENGLISH TO BECOME INDEPENDENT AND FLUENT READERS, AND WILL READ A VARIETY OF MATERIALS AND TEXTS WITH FLUENCY AND COMPREHENSION.

## 3.1.5 F. Vocabulary and Concept Development:

- 4. Use a grade-level appropriate dictionary independently to define unknown words.
- 5. Use a thesaurus to identify alternative word choices and meanings.

### 3.1.5 G. Comprehension Skills and Response to Text

- 3. Use cause and effect and sequence of events to gain meaning.
- 4. Anticipate and construct meaning from text by making conscious connections to self, an author, and others.

STANDARD 3.3 (SPEAKING) ALL STUDENTS WILL SPEAK IN CLEAR, CONCISE, ORGANIZED LANGUAGE THAT VARIES IN CONTENT AND FORM FOR DIFFERENT AUDIENCES AND PURPOSES.

#### 3.3.8 A. Discussion (small group and whole class)

- 1. Support a position, acknowledging opposing views.
- 2. Present ideas and opinions spontaneously in response to a topic or other speakers.
- 3. Apply rules for cooperative or whole class debate on a controversial issue.
- 4. Define group roles using consensus to ensure task is understood and completed.
- 5. Participate in a formal debate (e.g., panel discussion).
- 6. Respond orally to literature.
- 7. Participate in class discussions appropriately.

## 3.3.8 B. Questioning (Inquiry) and Contributing

- 1. Paraphrase others' comments to clarify viewpoints.
- 2. Question to clarify others' opinions.
- 3. Integrate relevant information regarding issues, projects, debates, and oral presentations.
- 4. Solve a problem or understand a task through group cooperation.

#### 3.3.8 D. Oral Presentation

- 1. Use writing to prompt discussion and enhance planning of formal and informal presentations.
- 2. Use visual aids, media, and/or technology to support oral communication.
- 3. Give oral presentations to different audiences for various purposes, such as summaries of books and articles, narratives, and persuasive topics, research projects, and extemporaneous/impromptu, dramatic speeches.
- 4. Acknowledge the audience with eye contact and use appropriate verbal responses to clarify questions and inquiries.
- 5. Incorporate peer feedback and teacher suggestions for revisions in content, organization, and delivery.
- 6. Use speaking techniques, including voice modulation, inflection, tempo, enunciation, and eye contact for effective presentations.
- 7. Use a scoring rubric to prepare, evaluate, and improve the oral presentations of self and others.
- 8. Read aloud with fluency.

# STANDARD 3.4 (LISTENING) ALL STUDENTS WILL LISTEN ACTIVELY TO INFORMATION FROM A VARIETY OF SOURCES IN A VARIETY OF SITUATIONS.

#### 3.4.6 A. Active Listening

- 1. Listen actively for a variety of purposes such as enjoyment and obtaining information.
- 2. Listen attentively and critically to a variety of speakers.
- 3. Acknowledge the speaker through eye contact and use appropriate feedback and questions to clarify the speaker's message.
- 4. Recognize and analyze persuasive techniques while listening.
- 5. Recognize the rich and varied language of literature (e.g., listen to a recording of poetry or classic literature).
- 6. Listen to determine a speaker's purpose, attitude, and perspective.

## 3.4.6 B. Listening Comprehension

- 1. Demonstrate competence in active listening through responding to a story, interview, or oral report (e.g., summarizing, reacting, retelling).
- 2. Demonstrate competence in active listening by interpreting and applying received information to new situations and in solving problems.
- 3. Ask pertinent questions, take notes, and draw conclusions based on information presented.
- 4. Make inferences based on an oral report or presentation.
- 5. Follow three-and four-step oral directions.

STANDARD 5.1 (SCIENTIFIC PROCESSES) ALL STUDENTS WILL DEVELOP PROBLEM-SOLVING, DECISION-MAKING AND INQUIRY SKILLS, REFLECTED BY FORMULATING USABLE QUESTIONS AND HYPOTHESES, PLANNING EXPERIMENTS, CONDUCTING SYSTEMATIC OBSERVATIONS, INTERPRETING AND ANALYZING DATA, DRAWING CONCLUSIONS, AND COMMUNICATING RESULTS.

#### 5.1.8 A. Habits of Mind

- 1. Evaluate the strengths and weaknesses of data, claims, and arguments.
- 2. Communicate experimental findings to others.
- 3. Recognize that the results of scientific investigations are seldom exactly the same and that replication is often necessary.
- 4. Recognize that curiosity, skepticism, open-mindedness, and honesty are attributes of scientists.

#### 5.1.8 B. Inquiry and Problem Solving

- 1. Identify questions and make predictions that can be addressed by conducting investigations.
- 2. Design and conduct investigations incorporating the use of a control.
- 3. Collect, organize, and interpret the data that result from experiments.

STANDARD 6.1 (SOCIAL STUDIES SKILLS) ALL STUDENTS WILL UTILIZE HISTORICAL THINKING, PROBLEM SOLVING, AND RESEARCH SKILLS TO MAXIMIZE THEIR UNDERSTANDING OF CIVICS, HISTORY, GEOGRAPHY, AND ECONOMICS.

#### 6.1.8 A. Social Studies Skills

- 1. Analyze how events are related over time.
- 2. Use critical thinking skills to interpret events, recognize bias, point of view, and context.
- 5. Examine current issues, events, or themes and relate them to past events.
- 6. Formulate questions based on information needs.
- 11. Summarize information in written, graphic, and oral formats.

STANDARD 8.2 (TECHNOLOGY EDUCATION) ALL STUDENTS WILL DEVELOP AN UNDERSTANDING OF THE NATURE AND IMPACT OF TECHNOLOGY, ENGINEERING, TECHNOLOGICAL DESIGN, AND THE DESIGNED WORLD AS THEY RELATE TO THE INDIVIDUAL, SOCIETY, AND THE ENVIRONMENT.

## 8.2.8 B. Design Process and Impact Assessment

- 1. Demonstrate and explain how the design process is not linear.
- 2. Use hands on activities to analyze products and systems to determine how the design process was applied to create the solution.
- 3. Identify a technological problem and use the design process to create an appropriate solution.
- 4. Describe how variations in resources can affect solutions to a technological problem.
- 5. Select and safely use appropriate tools and materials in analyzing, designing, modeling or making a technological product, system or environment.

STANDARD 9.2: (CONSUMER, FAMILY, AND LIFE SKILLS) ALL STUDENTS WILL DEMONSTRATE CRITICAL LIFE SKILLS IN ORDER TO BE FUNCTIONAL MEMBERS OF SOCIETY.

#### 9.2.8 A. Critical Thinking

- 1. Communicate, analyze data, apply technology, and problem solve.
- 2. Describe how personal beliefs and attitudes affect decision-making.
- 3. Identify and assess problems that interfere with attaining goals.
- 4. Recognize bias, vested interest, stereotyping, and the manipulation and misuse of information.
- 5. Practice goal setting and decision-making in areas relative to life skills.

#### 9.2.8 B. Self-Management

2. Demonstrate responsibility for personal actions and contributions to group activities.

#### 9.2.8 C. Interpersonal Communication

- 1. Demonstrate respect and flexibility in interpersonal and group situations.
- 2. Organize thoughts to reflect logical thinking and speaking.
- 3. Work cooperatively with others to solve a problem.
- 4. Demonstrate appropriate social skills within group activities.
- 5. Practice the skills necessary to avoid physical and verbal confrontation in individual and group settings.
- 6. Participate as a member of a team and contribute to group effort.

#### 9.2.8 D. Character Development and Ethics

- 1. Explain and demonstrate how character and behavior affects and influences the actions of others in the home, school, and community.
- 2. Describe and demonstrate appropriate character traits, social skills, and positive attitudes needed for the home, school, community, and workplace.
- 3. List problems and their causes, effects, and solutions that are faced in the home, school, and/or community.

4. Describe how personal ethics influence decision making.

**Big Idea:** Throughout history, utilitarian art, demonstrates man's need for the aesthetics, and has elevated the life of people, and thereby their civilizations.

<b>Essential Questions</b>	Enduring Understandings
• What is beauty?	Throughout time, humans have added
• What is beautiful?	elements of beauty to mundane objects.
• What is art?	<ul> <li>Form follows function.</li> </ul>
• Is beauty necessary?	<ul> <li>Art elevates culture and civilizations.</li> </ul>
• Is beauty practical?	
• Is art necessary?	
• Is art practical?	

# **Knowledge and Skills:**

- Observation
- Research
- Imagination
- Analysis
- Brainstorming
- Reflection
- Sequencing
- Organizing: classifying, comparing, contrasting
- Theorizing
- Seeking evidence or proof
- Synthesizing
- Evaluating
- Designing
- Divergent thinking (idea generation <u>technique</u>, such as <u>brainstorming</u>, in which an idea is followed in several directions to <u>lead</u> to one or more new ideas, which in turn lead to still more ideas. In contrast to <u>convergent thinking</u>, which <u>aims</u> at solving a specific <u>problem</u>, divergent thinking is creative, open-ended thinking aimed at generating fresh views and <u>novel</u> solutions).
- Convergent thinking (a <u>problem</u> solving <u>technique</u> in which ideas from different <u>fields</u> or participants are brought together (synthesized) to find a single <u>optimum</u> solution to a clearly defined problem.)

# **Stage 2: Evidence of Understanding**

# **Great Meadows Benchmarks:**

#### Students will:

- Research "practical" applications of art in history: Grecian urn, religious ornamentation, mosaics on walls, ceramics, Native American baskets and weavings, quilts, Ukranian Pysanke eggs
- Research personal heritage, and look for practical art found in this heritage, (example: Irish lace brought to America, taught to others, used in homes for window covering, table covering, etc.)
- Apply learning by creating their own practical art from a menu of choices

# **Assessment Methods:** Discussion • Oral presentations • Hands-on projects **Other Evidence and Student Self-Assessment: Stage 3: Learning Plan** W Students *will* know the expectations for this unit through: Stating Reviewing Discussing • Reflection of essential questions This unit will hook and hold students' attention by viewing authentic artifacts of Н "practical" art: Native American pottery, weaving, basketry, sand art, American Quilting, pottery, felted shoes, etc. Students will be asked to bring in objects that would be classified as American Folk Art. The following learning *experiences* that will help the students *explore* the big ideas and $\mathbf{E}$ essential questions: • Define key terms • Create Venn diagrams that compare and contrast world cultures arts and crafts with American folk art • Create chart of overlapping items and research each of these • Creation of American folk art Students will reflect, rethink, revise, and refine by: R Journaling • Development of ideas in writing and speaking • Design portfolio Brainstorming • Creation of artifacts Students will *exhibit* understanding through: $\mathbf{E}$ • Production of specific arts and crafts found in American history: o Baskets Pottery Ouilts o Knitting, crochet, or felting o Macramé Weaving o Rug braiding, punching, or hooking o Tin punch Leather carving Hands-on construction of artifacts • Oral presentations of research Differentiation opportunities to *tailor* learning will include: $\mathbf{T}$ Variety of choices in creation of artifacts • Format of presentation

• Individual v. partner v. small group

- O Organizational and sequencing considerations include:
  - Note taking
  - Unit folders
  - Brainstorming

# **Time Allotment:** 40 - 60 minutes; 45 days

# **Resources:**

# **Student Materials:**

- Arts and craft materials
- Found objects
- Journals
- Folders
- Jute
- Clay
- Rope
- Fabric
- Wool roving
- Crochet hooks, knitting needles
- Burlap
- Felting needles
- Yarn
- Leather scraps

# Technology:

- Internet
- Library
- Periodicals

# Teaching Materials:

- Internet Research
- Teacher-created activities
- Scaffold directions

# Teaching Resources:

- Internet
- Library
- Research
- Periodicals,
- News articles

Great Meadows Regional School District Gifted/Talented Education Grade Level: 8

# **Stage 1: Desired Results**

Topic: Capitalism and the Entrepreneurial Spirit~Business: From Idea to Product

Core Curriculum Content Number and Strands:

STANDARD 1.2 (CREATION AND PERFORMANCE) ALL STUDENTS WILL UTILIZE THOSE SKILLS, MEDIA, METHODS, AND TECHNOLOGIES APPROPRIATE TO EACH ART FORM IN THE CREATION, PERFORMANCE, AND PRESENTATION OF DANCE, MUSIC, THEATER, AND VISUAL ART.

#### 1.2.6 C. Theater

- 2. Create characterizations in context through manipulation of vocal and physical qualities and circumstances.
- 3. Collaboratively plan and execute group scenes stemming from improvisation.

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# 3.1.5 F. Vocabulary and Concept Development

- 4. Use a grade-level appropriate dictionary independently to define unknown words.
- 5. Use a thesaurus to identify alternative word choices and meanings.

# 3.1.5 G. Comprehension Skills and Response to Text

- 3. Use cause and effect and sequence of events to gain meaning.
- 4. Anticipate and construct meaning from text by making conscious connections to self, an author, and others.

STANDARD 3.3 (SPEAKING) ALL STUDENTS WILL SPEAK IN CLEAR, CONCISE, ORGANIZED LANGUAGE THAT VARIES IN CONTENT AND FORM FOR DIFFERENT AUDIENCES AND PURPOSES.

#### 3.3.8 A. Discussion (small group and whole class)

- 1. Support a position, acknowledging opposing views.
- 2. Present ideas and opinions spontaneously in response to a topic or other speakers.
- 3. Apply rules for cooperative or whole class debate on a controversial issue.
- 4. Define group roles using consensus to ensure task is understood and completed.
- 5. Participate in a formal debate (e.g., panel discussion).
- 6. Respond orally to literature.
- 7. Participate in class discussions appropriately.

## 3.3.8 B. Questioning (Inquiry) and Contributing

- 1. Paraphrase others' comments to clarify viewpoints.
- 2. Question to clarify others' opinions.
- 3. Integrate relevant information regarding issues and problems from group discussions and interviews for reports, issues, projects, debates, and oral presentations.
- 4. Solve a problem or understand a task through group cooperation.

#### 3.3.8 D. Oral Presentation

- 1. Use writing to prompt discussion and enhance planning of formal and informal presentations.
- $2. \quad Use \ visual \ aids, \ media, \ and/or \ technology \ to \ support \ or al \ communication.$
- 3. Give oral presentations to different audiences for various purposes, such as summaries of books and articles, narratives, and persuasive topics, research projects, and extemporaneous/impromptu, dramatic speeches.
- 4. Acknowledge the audience with eye contact and use appropriate verbal responses to clarify questions and inquiries.
- 5. Incorporate peer feedback and teacher suggestions for revisions in content, organization, and delivery.
- 6. Use speaking techniques, including voice modulation, inflection, tempo, enunciation, and eye contact for

effective presentations.

- 7. Use a scoring rubric to prepare, evaluate, and improve the oral presentations of self and others.
- 8. Read aloud with fluency.

# STANDARD 3.4 (LISTENING) ALL STUDENTS WILL LISTEN ACTIVELY TO INFORMATION FROM A VARIETY OF SOURCES IN A VARIETY OF SITUATIONS.

## 3.4.6 A. Active Listening

- 1. Listen actively for a variety of purposes such as enjoyment and obtaining information.
- 2. Listen attentively and critically to a variety of speakers.
- 3. Acknowledge the speaker through eye contact and use appropriate feedback and questions to clarify the speaker's message.
- 4. Recognize and analyze persuasive techniques while listening.
- 5. Recognize the rich and varied language of literature (e.g., listen to a recording of poetry or classic literature).
- 6. Listen to determine a speaker's purpose, attitude, and perspective.

#### 3.4.6 B. Listening Comprehension

- 1. Demonstrate competence in active listening through responding to a story, interview, or oral report (e.g., summarizing, reacting, retelling).
- 2. Demonstrate competence in active listening by interpreting and applying received information to new situations and in solving problems.
- 3. Ask pertinent questions, take notes, and draw conclusions based on information presented.
- 4. Make inferences based on an oral report or presentation.
- 5. Follow three-and four-step oral directions.

STANDARD 5.1 (SCIENTIFIC PROCESSES) ALL STUDENTS WILL DEVELOP PROBLEM-SOLVING, DECISION-MAKING AND INQUIRY SKILLS, REFLECTED BY FORMULATING USABLE QUESTIONS AND HYPOTHESES, PLANNING EXPERIMENTS, CONDUCTING SYSTEMATIC OBSERVATIONS, INTERPRETING AND ANALYZING DATA, DRAWING CONCLUSIONS, AND COMMUNICATING RESULTS.

#### 5.1.8 A. Habits of Mind

- 1. Evaluate the strengths and weaknesses of data, claims, and arguments.
- 2. Communicate experimental findings to others.
- 3. Recognize that the results of scientific investigations are seldom exactly the same and that replication is often necessary.
- 4. Recognize that curiosity, skepticism, open-mindedness, and honesty are attributes of scientists.

# 5.1.8 B. Inquiry and Problem Solving

- 1. Identify questions and make predictions that can be addressed by conducting investigations.
- 2. Design and conduct investigations incorporating the use of a control.
- 3. Collect, organize, and interpret the data that result from experiments.

STANDARD 6.1 (SOCIAL STUDIES SKILLS) ALL STUDENTS WILL UTILIZE HISTORICAL THINKING, PROBLEM SOLVING, AND RESEARCH SKILLS TO MAXIMIZE THEIR UNDERSTANDING OF CIVICS, HISTORY, GEOGRAPHY, AND ECONOMICS.

#### 6.1.8 A. Social Studies Skills

- 1. Analyze how events are related over time.
- 2. Use critical thinking skills to interpret events, recognize bias, point of view, and context.
- 5. Examine current issues, events, or themes and relate them to past events.
- 6. Formulate questions based on information needs.
- 11. Summarize information in written, graphic, and oral formats.

STANDARD 6.2 (CIVICS) ALL STUDENTS WILL KNOW, UNDERSTAND AND APPRECIATE THE VALUES AND PRINCIPLES OF AMERICAN DEMOCRACY AND THE RIGHTS, RESPONSIBILITIES, AND ROLES OF A CITIZEN IN THE NATION AND THE WORLD.

## 6.2.8 B. American Values and Principles

1. Analyze how certain values including individual rights, the common good, self-government, justice, equality and free inquiry are fundamental to American public life.

# STANDARD 6.5 (ECONOMICS) ALL STUDENTS WILL ACQUIRE AN UNDERSTANDING OF KEY ECONOMIC PRINCIPLES.

#### 6.5.8 A. Economic Literacy

- 1. Discuss how needs and wants change as one ages and the impact of planning, spending and saving.
- 2. Explain the law of supply and demand.
- 3. Compare ways to save money, including checking and savings accounts, stocks and bonds, and the relationship between risk and return in investments.
- 4. Describe the role credit plays in the economy and explain the difference in cost between cash and credit purchases.
- 5. Discuss the economic growth of a nation in terms of increasing productivity, investment in physical capital, and investment in human capital.
- 6. Describe how private industry acquires material and energy resources, provides jobs, raises financial capital, manages production processes, and markets goods and services that create wealth in order to meet consumer and industrial requirements.
- 7. Discuss how innovation, entrepreneurship, competition, customer satisfaction, and continuous improvement in productivity are responsible for the rise in the standard of living in the United States and other countries with market economies.

#### 6.5.8 B. Economics and Society

- 1. Discuss how meeting the needs and wants of a growing world population impacts the environment and economic growth.
- 2. Describe the many ways federal, state, and local governments raise funds to meet the need for public facilities and government services.
- 3. Discuss how societies have been affected by industrialization and by different political and economic philosophies.
- 4. Describe how inventions and innovations have improved standards of living over the course of history.
- 5. Compare and contrast various careers, examining educational requirements and costs, salary and benefits, longevity, impact on society and the economy, and demand.
- 6. Analyze and give examples of how business and industry influence the buying decisions of consumers through advertising.
- 7. Discuss the need for ethical behavior in economic decisions and financial transactions.

STANDARD 8.2 (TECHNOLOGY EDUCATION) ALL STUDENTS WILL DEVELOP AN UNDERSTANDING OF THE NATURE AND IMPACT OF TECHNOLOGY, ENGINEERING, TECHNOLOGICAL DESIGN, AND THE DESIGNED WORLD AS THEY RELATE TO THE INDIVIDUAL, SOCIETY, AND THE ENVIRONMENT.

## 8.2.8 B. Design Process and Impact Assessment

- 1. Demonstrate and explain how the design process is not linear.
- 2. Use hands on activities to analyze products and systems to determine how the design process was applied to create the solution.
- 3. Identify a technological problem and use the design process to create an appropriate solution.
- 4. Describe how variations in resources can affect solutions to a technological problem.
- 5. Select and safely use appropriate tools and materials in analyzing, designing, modeling or making a technological product, system or environment.

STANDARD 9.2: (CONSUMER, FAMILY, AND LIFE SKILLS) ALL STUDENTS WILL DEMONSTRATE CRITICAL LIFE SKILLS IN ORDER TO BE FUNCTIONAL MEMBERS OF SOCIETY.

## 9.2.8 A. Critical Thinking

- 1. Communicate, analyze data, apply technology, and problem solve.
- 2. Describe how personal beliefs and attitudes affect decision-making.
- 3. Identify and assess problems that interfere with attaining goals.
- 4. Recognize bias, vested interest, stereotyping, and the manipulation and misuse of information.
- 5. Practice goal setting and decision-making in areas relative to life skills.

## 9.2.8 B. Self-Management

2. Demonstrate responsibility for personal actions and contributions to group activities.

#### 9.2.8 C. Interpersonal Communication

- 1. Demonstrate respect and flexibility in interpersonal and group situations.
- 2. Organize thoughts to reflect logical thinking and speaking.
- 3. Work cooperatively with others to solve a problem.
- 4. Demonstrate appropriate social skills within group activities.
- 5. Practice the skills necessary to avoid physical and verbal confrontation in individual and group settings.
- 6. Participate as a member of a team and contribute to group effort.

### 9.2.8 D. Character Development and Ethics

- 1. Explain and demonstrate how character and behavior affects and influences the actions of others in the home, school, and community.
- 2. Describe and demonstrate appropriate character traits, social skills, and positive attitudes needed for the home, school, community, and workplace.
- 3. List problems and their causes, effects, and solutions that are faced in the home, school, and/or community.
- 4. Describe how personal ethics influence decision making.

**Big Ideas:** Necessity is the mother of invention; persuasion is the art of communicating what our needs are; choices are made based on individual perceptions; and risk is an integral part of capitalism.

#### **Essential Questions Enduring Understandings** • Critical and creative problem solving • What is an economy? skills are essential in business. • Why are some economies more successful than others? • Our economy drives the success of • Why do people trade or exchange businesses. The internet has become the world's • What commodities have as great a marketplace. Advertising and marketing strategies value as gold? • Should ideas be marketed for and gimmicks influence consumers. Business and spending is influenced by individual gain? current trends/fads/leaders in society. How has the Internet diversified business? • Media influences purchases. • In what ways might America's leadership in the world of economics change? • Is business ethical?

# **Knowledge and Skills:**

- Analyze information
- Demonstrate understanding of new information: attributes of an entrepreneur, purpose of market research, how to design a budget, business vocabulary, advertising styles and techniques, writing contracts, creation of surveys
- Organize data

- Research originality of ideas/products/programs via the Internet
- Predict outcomes
- Set goals
- Create sequences
- Hypothesize
- Synthesize information
- Evaluate outcomes.

# **Stage 2: Evidence of Understanding**

## **Great Meadows Benchmarks:**

### Students will:

- Research and investigate elements of economics
- Identify specific business practices which include market research, data analysis, cost analysis, marketing survey, advertising campaign, and prototype development
- Compare and contrast values of commodities in the global market, ethical nature of finance and the changes generated by Internet marketing
- Generate data from surveys, and advertising campaign, ad a prototype for the business
- Make observations regarding the production of a single product to mass-production
- Understand that money and trade makes the world smaller, that economics and media are systems that encourage exchange, strengthens alliances between countries, and that American ingenuity must continue to prosper, grow, and flourish in order for the US to remain a financial/world leader

## **Assessment Methods:**

- Brainstorming
- Class discussion
- Market research
- Cost analysis
- Business plan
- Role play/banking/capital investors
- Creation of contracts for investors
- Marketing strategies
- Business name, logo, slogan, billboard, commercial, jingle
- Development and creation of prototype/sample
- Web-site creation
- Oral presentations

# Other Evidence and Student Self-Assessment:

# **Stage 3: Learning Plan**

- W Students *will* know the expectations for this unit through:
  - Brainstorming
  - Discussing
  - Debating
  - Restating
  - Reviewing
  - Reflecting upon the essential questions
- **H** This unit will *hook and hold* students' attention by:
  - Use of visual props
  - Current news articles that showcase teen entrepreneur millionaires

Great N	Meadows Regional
	Brainstorming of problems and solutions
	Review of popular advertising campaigns
E	The following learning <i>experiences</i> that will help the students <i>explore</i> the big ideas and
	essential questions:
	Identify problem that needs solutions
	Create solutions for identified problem
	Investigate elements and personality traits of an entrepreneur
	Understand the law of supply and demand
	Do market research for solution to problem
	Create a cost analysis sheet
	Create an idea analysis survey
	Analyze and create graphs of survey results
	Create a business plan
	Create an advertising campaign for product
	Create a prototype of product
	Sell to audience
	Evaluate learning through self-reflection
R	Students will reflect, rethink, revise, and refine by:
	Brainstorming
	Group discussion
	Creation of "if-then" statements
	"What if" conversation
E	Students will <i>exhibit</i> understanding through:
	Market research report
	Cost analysis report
	Market survey, business plan
	<ul> <li>Advertising campaign (business name, logo, slogan, jingle, commercial)</li> </ul>
	Product sample
T	Differentiation opportunities to <i>tailor</i> learning will include:
	Pre assessment of knowledge
	Project pacing
	Choices of group v. individual project
	Creation of class corporations with many products
	Hands-on learning
	Technology choices
	Web-page design
О	Organizational and sequencing considerations include:
	Note-taking
	Outlining
	• Flowcharts
	• Unit folders
<b>70.</b>	Advertising activities
Time A	Allotment: 60 minutes; 80 days

## **Resources:**

# **Student Materials:**

- Computers
- Newspapers
- Magazines
- Imagination
- Arts and crafts materials

# Technology:

- Internet
- Web-page design
- Power point
- Video camera
- CD

# Teaching Materials:

- Internet research
- Newspapers
- Magazines
- Current events

# Teaching Resources:

- Internet
- Library

# Gifted/Talented Education School-wide Enrichment Grade Level: 5-8

**Mission Statement:** The mission of the Discover! Workshops is to create high-level, high-interest, flexible enrichment activities that will engage the interest of the district's identified gifted and talented learners, as well as the general education population. These 2-4 week workshops, meeting before, after, or during school, afford students the opportunity to interact with peers, develop positive social skills, while enjoying topics as diverse as their individual interests.

# **Stage 1: Desired Results**

# **Topic: Discover! Workshops**

## Core Curriculum Content Number and Strands

STANDARD 1.2 (CREATION AND PERFORMANCE) ALL STUDENTS WILL UTILIZE THOSE SKILLS, MEDIA, METHODS, AND TECHNOLOGIES APPROPRIATE TO EACH ART FORM IN THE CREATION, PERFORMANCE, AND PRESENTATION OF DANCE, MUSIC, THEATER, AND VISUAL ART.

## 1.2.6 C. Theater

- Create characterizations in context through manipulation of vocal and physical qualities and circumstances.
- 3. Collaboratively plan and execute group scenes stemming from improvisation.

STANDARD 3.1 (READING) ALL STUDENTS WILL UNDERSTAND AND APPLY THE KNOWLEDGE OF SOUNDS, LETTERS, AND WORDS IN WRITTEN ENGLISH TO BECOME INDEPENDENT AND FLUENT READERS, AND WILL READ A VARIETY OF MATERIALS AND TEXTS WITH FLUENCY AND COMPREHENSION.

#### 3.1.5 F. Vocabulary and Concept Development:

- 4. Use a grade-level appropriate dictionary independently to define unknown words.
- 5. Use a thesaurus to identify alternative word choices and meanings.

# 3.1.5 G. Comprehension Skills and Response to Text

- 3. Use cause and effect and sequence of events to gain meaning.
- 4. Anticipate and construct meaning from text by making conscious connections to self, an author, and others.

STANDARD 3.3 (SPEAKING) ALL STUDENTS WILL SPEAK IN CLEAR, CONCISE, ORGANIZED LANGUAGE THAT VARIES IN CONTENT AND FORM FOR DIFFERENT AUDIENCES AND PURPOSES.

#### 3.3.8 A. Discussion (small group and whole class)

- 1. Support a position, acknowledging opposing views.
- 2. Present ideas and opinions spontaneously in response to a topic or other speakers.
- 3. Apply rules for cooperative or whole class debate on a controversial issue.
- 4. Define group roles using consensus to ensure task is understood and completed.
- 5. Participate in a formal debate (e.g., panel discussion).
- 6. Respond orally to literature.
- 7. Participate in class discussions appropriately.

## 3.3.8 B. Questioning (Inquiry) and Contributing

- 1. Paraphrase others' comments to clarify viewpoints.
- 2. Question to clarify others' opinions.
- 3. Integrate relevant information regarding issues and problems from group discussions and interviews for reports, issues, projects, debates, and oral presentations.
- 4. Solve a problem or understand a task through group cooperation.

#### 3.3.8 D. Oral Presentation

- 1. Use writing to prompt discussion and enhance planning of formal and informal presentations.
- 2. Use visual aids, media, and/or technology to support oral communication.
- 3. Give oral presentations to different audiences for various purposes, such as summaries of books and articles, narratives, and persuasive topics, research projects, and extemporaneous/impromptu, dramatic speeches.
- 4. Acknowledge the audience with eye contact and use appropriate verbal responses to clarify questions and inquiries.
- 5. Incorporate peer feedback and teacher suggestions for revisions in content, organization, and delivery.
- 6. Use speaking techniques, including voice modulation, inflection, tempo, enunciation, and eye contact for effective presentations.
- 7. Use a scoring rubric to prepare, evaluate, and improve the oral presentations of self and others.
- 8. Read aloud with fluency.

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- 1. Listen actively for a variety of purposes such as enjoyment and obtaining information.
- 2. Listen attentively and critically to a variety of speakers.
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- 6. Listen to determine a speaker's purpose, attitude, and perspective.

# 3.4.6 B. Listening Comprehension

- 1. Demonstrate competence in active listening through responding to a story, interview, or oral report (e.g., summarizing, reacting, retelling).
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- 1. Evaluate the strengths and weaknesses of data, claims, and arguments.
- 2. Communicate experimental findings to others.

Recognize that the results of scientific investigations are seldom exactly the same and that

- 3. replication is often necessary.
- 4. Recognize that curiosity, skepticism, open-mindedness, and honesty are attributes of scientists.

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- 1. Identify questions and make predictions that can be addressed by conducting investigations.
- 2. Design and conduct investigations incorporating the use of a control.
- 3. Collect, organize, and interpret the data that result from experiments.

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- 1. Analyze how events are related over time.
- 2. Use critical thinking skills to interpret events, recognize bias, point of view, and context.
- 5. Examine current issues, events, or themes and relate them to past events.
- 6. Formulate questions based on information needs.
- 11. Summarize information in written, graphic, and oral formats.

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#### 6.2.8 B. American Values and Principles

1. Analyze how certain values including individual rights, the common good, self-government, justice, equality and free inquiry are fundamental to American public life.

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- 1. Discuss how needs and wants change as one ages and the impact of planning, spending and saving.
- 2. Explain the law of supply and demand.
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- 5. Discuss the economic growth of a nation in terms of increasing productivity, investment in physical capital, and investment in human capital.
- 6. Describe how private industry acquires material and energy resources, provides jobs, raises financial capital, manages production processes, and markets goods and services that create wealth in order to meet consumer and industrial requirements.
- 7. Discuss how innovation, entrepreneurship, competition, customer satisfaction, and continuous improvement in productivity are responsible for the rise in the standard of living in the United States and other countries with market economies.

# 6.5.8 B. Economics and Society

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- 2. Describe the many ways federal, state, and local governments raise funds to meet the need for public facilities and government services.
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- 4. Describe how inventions and innovations have improved standards of living over the course of history.
- 5. Compare and contrast various careers, examining educational requirements and costs, salary and benefits, longevity, impact on society and the economy, and demand.
- 6. Analyze and give examples of how business and industry influence the buying decisions of consumers through advertising.

7. Discuss the need for ethical behavior in economic decisions and financial transactions.

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#### 8.2.8 B. Design Process and Impact Assessment

- 1. Demonstrate and explain how the design process is not linear.
- 2. Use hands on activities to analyze products and systems to determine how the design process was applied to create the solution.
- 3. Identify a technological problem and use the design process to create an appropriate solution.
- 4. Describe how variations in resources can affect solutions to a technological problem.
- 5. Select and safely use appropriate tools and materials in analyzing, designing, modeling or making a technological product, system or environment.

# STANDARD 9.2: (CONSUMER, FAMILY, AND LIFE SKILLS) ALL STUDENTS WILL DEMONSTRATE CRITICAL LIFE SKILLS IN ORDER TO BE FUNCTIONAL MEMBERS OF SOCIETY.

## 9.2.8 A. Critical Thinking

- 1. Communicate, analyze data, apply technology, and problem solve.
- 2. Describe how personal beliefs and attitudes affect decision-making.
- 3. Identify and assess problems that interfere with attaining goals.
- 4. Recognize bias, vested interest, stereotyping, and the manipulation and misuse of information.
- 5. Practice goal setting and decision-making in areas relative to life skills.

### 9.2.8 B. Self-Management

2. Demonstrate responsibility for personal actions and contributions to group activities.

## 9.2.8 C. Interpersonal Communication

- 1. Demonstrate respect and flexibility in interpersonal and group situations.
- 2. Organize thoughts to reflect logical thinking and speaking.
- 3. Work cooperatively with others to solve a problem.
- 4. Demonstrate appropriate social skills within group activities.
- 5. Practice the skills necessary to avoid physical and verbal confrontation in individual and group settings.
- 6. Participate as a member of a team and contribute to group effort.

#### 9.2.8 D. Character Development and Ethics

- 1. Explain and demonstrate how character and behavior affects and influences the actions of others in the home, school, and community.
- 2. Describe and demonstrate appropriate character traits, social skills, and positive attitudes needed for the home, school, community, and workplace.
- 3. List problems and their causes, effects, and solutions that are faced in the home, school, and/or community.
- 4. Describe how personal ethics influence decision making.

## Big Idea:

"Imagination is more important than knowledge. For knowledge is limited to all we now know and understand, while imagination embraces the entire world, and all there ever will be to know and understand."

~Albert Einstein

<b>Essential Questions</b>	Enduring Understandings
What is curiosity?	<ul> <li>Learning is life-long.</li> </ul>
• What is talent?	<ul> <li>Curiosity drives learning.</li> </ul>
What is creativity?	<ul> <li>Talent is observed in many ways.</li> </ul>
<ul> <li>How do we learn to solve problems?</li> </ul>	<ul> <li>Creativity and imaginative thinking are</li> </ul>
	key components to learning and
	problem solving.

# **Knowledge and Skills:**

- Observation
- Research
- Imagination
- Analysis
- Brainstorming
- Reflection
- Sequencing
- Organizing: classifying, comparing, contrasting,
- Theorizing
- Seeking evidence or proof
- Synthesizing
- Evaluating
- Designing
- Divergent thinking (idea generation <u>technique</u>, such as <u>brainstorming</u>, in which an idea is followed in several directions to <u>lead</u> to one or more new ideas, which in turn lead to still more ideas. In contrast to <u>convergent thinking</u>, which <u>aims</u> at solving a specific <u>problem</u>, divergent thinking is creative, open-ended thinking aimed at generating fresh views and <u>novel</u> solutions).
- Convergent thinking (a <u>problem</u> solving <u>technique</u> in which ideas from different <u>fields</u> or participants are brought together (synthesized) to find a single <u>optimum</u> solution to a clearly defined problem.)

# **Stage 2: Evidence of Understanding**

# **Hackettstown Benchmarks:**

## Students will:

- Understand topics
- Define key words needed for understanding
- Analyze information presented
- Apply information through discussion or hands-on activity

## **Assessment Methods:**

- Game responses
- Discussion
- Projects
- Observation of students' enthusiasm, eagerness, attendance, and work-ethic

# **Other Evidence and Student Self-Assessment:**

# **Stage 3: Learning Plan**

	Meadows Regional		
$\mathbf{W}$	Students <i>will</i> know the expectations for this unit through:		
	• Stating		
	Reviewing		
	• Discussing		
	Reflection of essential questions		
Н	This unit will <i>hook and hold</i> students' attention by introducing topics via brochures,		
	books and short stories, examples of specific topics, etc.		
E	The following learning <i>experiences</i> that will help the students <i>explore</i> the big ideas and		
	essential questions:		
	Define key terms necessary to each topic		
	Research as needed in each topic		
	Topics may include, but not be limited to:		
	❖ Author Study: Blue Balliet: <b>The Wright Three</b> , and <b>Chasing Vermeer</b>		
	❖ Where in the World: World Geography		
	❖ Frindle by Andrew Clemens		
	* Reader's Theater		
	❖ Pickled People		
	❖ Origami		
	❖ Pirates		
	❖ Dragons		
	• Weird Laws		
	* What's so Funny: The science of humor		
	<ul> <li>It's a Puzzle: all sorts of puzzles that stretch your brain</li> <li>Native Americans</li> </ul>		
	<ul><li>❖ Native Americans</li><li>❖ Survivor</li></ul>		
	<ul><li>Survivor</li><li>Extra! Extra! It's in the News</li></ul>		
	♦ Chess Club		
	Scrabble Club		
	❖ Battle of the Books		
	Dunc of the Books		
R	Students will reflect, rethink, revise, and refine by:		
	• Discussion		
	Brainstorming		
	• Creation of hands-on activities		
E	Students will <i>exhibit</i> understanding through:		
	Creation of cultural components		
	Questions students ask the teacher and each other		
	Discussion		
	• Notes		
	Hands-on construction of artifacts		
T	Differentiation opportunities to <i>tailor</i> learning will include:		
_	Variety of choices in creation of artifacts		
	Format of presentation		
	Individual v. partner v. small group		
	1		

# **New Jersey Student Learning Standards**

http://www.state.nj.us/education/cccs/

# **Integration of 21<sup>st</sup> Century Theme(s)**

The following websites are sources for the following 21<sup>st</sup> Century Themes and Skills:

http://www.nj.gov/education/code/current/title6a/chap8.pdf

http://www.p21.org/about-us/p21-framework.

http://www.state.nj.us/education/cccs/standards/9/index.html

# **21st Century Interdisciplinary Themes (**into core subjects)

- Global Awareness
- Financial, Economic, Business and Entrepreneurial Literacy
- Civic Literacy
- Health Literacy
- Environmental Literacy

# **Learning and Innovation Skills**

- Creativity and Innovation
- Critical Thinking and Problem Solving
- Communication and Collaboration

# Information, Media and Technology Skills

- Information Literacy
- Media Literacy
- ICT (Information, Communications and Technology) Literacy

## **Life and Career Skills**

- Flexibility and Adaptability
- Initiative and Self-Direction
- Social and Cross-Cultural Skills
- Productivity and Accountability
- Leadership and Responsibility

# **Integration of Digital Tools**

- Classroom computers/laptops
- Technology Lab
- FM system
- Other software programs