

Project Bright IDEA 2: Interest Development Early Abilities

**A Jacob Javits Gifted Education Program
Funded by the US Department of Education
2004-2009**



Concept:

Topic: Benjamin Franklin

By: Patty Dato and Phyllis Williams

Grade Level: 4

**The North Carolina Department of Public Instruction
Exceptional Children Division
Academically or Intellectually Gifted Program**

The American Association For Gifted Children at Duke University

Big Ideas Manifested

Topic – Benjamin Franklin
Text – Now & Ben
Author – Gene Baretta
Publisher/Date

Concepts	Themes
<ul style="list-style-type: none"> • Change • Force or influence • Conflict 	<ul style="list-style-type: none"> • All things are related, have purpose and change over time • Change generates additional change, can be positive/negative, is inevitable and necessary for growth.
Issues or Debates	Problems or Challenges
<ul style="list-style-type: none"> • Past vs. present • Advantages vs. disadvantages of technology 	<ul style="list-style-type: none"> • Impact of technology on environment, socially and economically
Processes	Theories
<ul style="list-style-type: none"> • Supplying basic needs with technology • Growth • Social acceptance 	<ul style="list-style-type: none"> • Change is good • Technology brings consequences which can be negative or positives • Productivity is increased through technological advances
Paradoxes	Assumptions or Perspectives
<ul style="list-style-type: none"> • Technology always means improvement • People should stop inventing 	<ul style="list-style-type: none"> • Our lives are easier because of technology • Technological progress should be evaluated • Technological advancement is best for human kind.

Concept: Change

Topic: Inventions

Suggested Text Selection(s): *Now and Ben* BY Gene Barretta

Look, Listen and Identify:

Intelligent Behaviors

Story Focus: Thinking Flexibly, Metacognition, Questioning and Posing Problems, Thinking and communication with Clarity and Precision, Finding Humor, Taking Responsible Risks, Creating, imagining, innovating, and thinking interdependently.

Student Activities : Thinking Flexibly, Metacognition, Questioning and Posing Problems, Thinking and communication with Clarity and Precision, Finding Humor, Taking Responsible Risks, Creating, imagining, innovating, and thinking interdependently.

NC Standards:

3.01 Assess changes in ways of living over time and determine whether the changes are primarily political, economic, or social.

6.02 Analyze the choices and opportunity cost involved in economic decisions.

7.01 Cite examples from North Carolina's history of the impact of technology.

7.02 Analyze the effect of technology on North Carolina's citizens, past and present.

7.03 Explain how technology changed and influenced the movement of people, goods, and ideas over time.

7.04 Analyze the effect of technology on North Carolina citizens today.

7.05 Identify the advantages and disadvantages of technology in the lives of North Carolinians.

Local Pacing Guide Timeline: Six weeks, two days a week, one hour lesson

Thinking Skills Focus: Determine changes over time, analyze choices and opportunities of economic decisions, identify the effects and pros and cons of technology in NC today.

Topic Focus: Inventions

Concept Focus:

Change is necessary for growth.

Change can be personal or global

Change may involve cooperation or conflict

Change may result in the confirmation of old ideas or the affirmation of new ideas

Project Bright IDEA Javits Research funded by US Department of Education
North Carolina Department of Education and The American Association for Gifted Children,
Duke University

Overarching Generalizations:

1. Change is inevitable.
2. Change takes time to develop.
3. Change affects life.

More Complex Generalizations (Two or more concepts):

1. **Recognize the need for change and accept the changes made.**
2. **Be able to identify economic as well as political change.**

Directions for Teachers:

Display sentence strips with the generalizations. Discuss topics and vocabulary words needed to gain a deeper understanding of the conceptual lessons.

Suggested Topics for Discussion:

How have some of Ben Franklin's inventions of the past affect us today?

What resources do you think Ben utilized to develop his ideas and inventions?

Which of his ideas or inventions have influenced your life?

Suggested Vocabulary Words for Discussion:

Humanitarian

Scamper

Innovation

Economics

Change

A Six-Step Process for Teaching Academic Vocabulary Terms:

1. Provide a description, explanation or example of the new vocabulary term.
2. Ask students to restate the description, explanation or example in their own words using complete sentences.
3. Ask students to construct a picture, symbol or graphic representing the term or phrase.
4. Engage the students periodically in activities that help them add to their knowledge of the terms in a booklet that they have created (Keep it simple.)
5. Periodically ask students to discuss the terms with one another (**Think** of your favorite vocabulary words from the unit; **pair** with a vocabulary buddy, **share** by discussing the vocabulary terms with your vocabulary buddy.) Teacher should model process each time before students do the Think, Pair, Share with Vocabulary Buddy.
6. Construct games to periodically involve students and allow them to play with the terms.

Robert Marzano

Vocabulary Extension: "Window Notes" activity # 2-3-1

Select a generalization(s) and essential questions. Introduce one or more of the following topics:

Six Facets of Understanding

<p>Facet 1 – EXPLANATION</p> <p>What do you predict will be invented in your life time? What effects do you predict these inventions will have on our environment and/or life style? Draw a picture of this invention and on the reverse side list reasons for the need for the invention.</p>
<p>Facet 2 - INTERPRETATION</p> <p>What implications do you speculate would happen if Americans stopped inventing? What country do you believe will become a leader in developing new inventions? Research this country for important inventions in the past ten years.</p>
<p>Facet 3 - APPLICATION</p> <p>How would we make changes/adaptations to insure that we remain a leader in technology and innovations for the future? Utilize “Collaborative Summarizing” activity to formulate your class idea.</p>
<p>Facet 4 - PERSPECTIVE</p> <p>How would you compare/contrast a day in your life with a day in Ben Franklin’s life? Create two dioramas depicting the above compare/contrast.</p>
<p>Facet 5 – EMPATHY</p> <p>Imagine you are Ben Franklin’s assistant for a day. How does it feel to work with such a famous person? Create a postcard illustrating and describing your feelings about working with a famous inventor.</p>
<p>Facet 6 – SELF-KNOWLEDGE</p> <p>What is something you became aware after reading <u>Ben and Me</u>? What would you like to learn more about? As a class design a questioning map using sticky notes with student generated “I wonder...questions. Teacher will demonstrate how to research and answer one question per day. The question map will remain posted for new questions to be added and answered through out the unit of study.</p>

**Read:
Task Rotation Learning Activities**

Grade 4

All conceptual activities must include discussing and/or relating to the selected generalization(s) through essential questions.

<p style="text-align: center;">Mastery Learner (A) Sensing- Thinking</p> <p>Utilizing <u>Now and Ben</u>, choose five favorite inventions and take detail notes on each. Name two reasons for each choice.</p> <p style="text-align: center;">V _ L _ S _ M _ B _ P _ I _ N _</p>	<p style="text-align: center;">Interpersonal Learner (B) Sensing-Thinking</p> <p>Buddy up with a partner to tour the class and observe the variety of inventions used in our everyday class room. One student chooses what he/she perceives to be the most important invention in the room and the other chooses the least important in terms of promoting student learning. Co-write a poem about your invention choices.</p> <p style="text-align: center;">V _ L _ S _ M _ B _ P _ I _ N _</p>
<p style="text-align: center;">Understanding Learner (C) Intuitive-Thinking</p> <p>Ben invented the lightning rod over two hundred years ago. Is there a need for lightning rods in NC today? Why. Explain</p> <p style="text-align: center;">V _ L _ S _ M _ B _ P _ I _ N _</p>	<p style="text-align: center;">Self-Expressive Learner (D) Intuitive-Feeling</p> <p>Imagine you are Ben Franklin and pick an invention to improve on for today's use. Write an article articulating how you would change it and why.</p> <p style="text-align: center;">V _ L _ S _ M _ B _ P _ I _ N _</p>

Real World Connections With Products:

Organize, analyze, similar/different, identify, sort/categorize, explain, interpret

Real World Applications:

Environmental activist, scientist, biologist, mathematician, politician, humanitarian, inventor, musician, statesman, ambassador, diplomat, engineer, author, editor, journalist.

Real World Terms:

Discuss, collect, research, display.

Concept Focus:

Overarching Generalizations:

More Complex Generalizations (Two or more concepts):

Essential Question

(Include concept and intelligent behavior that leads to deeper understanding of the concept through exploration of the generalization)

Materials Needed for Task Rotation and/or Task Rotation Menu

- Paper
- Pencils
- Thinking maps
- Computer
- Encyclopedia
- Crayons and markers

MetaCognitive Discussion (Essential Questions):

(Whole Group)

Conceptual Perspectives:

Intelligent Behaviors:

Literary Perspectives:

Student/Teacher Reflections

Math Task Rotation Learning Activities

K-2

All conceptual activities must include discussing and/or relating to the selected generalization(s) through essential questions.

<p>Mastery Learner (A) Sensing- Thinking</p> <p>V_L_S_M_B_P_I_N_</p>	<p>Interpersonal Learner (B) Sensing-Thinking</p> <p>V_L_S_M_B_P_I_N_</p>
<p>Understanding Learner (C) Intuitive-Thinking</p> <p>V_L_S_M_B_P_I_N_</p>	<p>Self-Expressive Learner (D) Intuitive-Feeling</p> <p>V_L_S_M_B_P_I_N_</p>

Real World Connections With Products:

Real World Applications:

Real World Terms:

Connect all products in the unit to real world applications reflecting the concept, generalizations and topic. The above is an example of how this might be accomplished.

Concept Focus:

Overarching Generalizations:

More Complex Generalizations (Two or more concepts):

Essential Question(s):

(Include concept and intelligent behavior that leads to deeper understanding of the concept through exploration of the generalization)

1. What are the pros and cons of technological progress?
2. How does technology inventions change /influence lives of North Carolinians?
3. What social, political, economic changes and problems and/or solutions that arise from technological inventions?
4. What drives technological inventions advancements?

Materials Needed for Task Rotation and/or Task Rotation Menu

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MetaCognitive Discussion (Essential Questions):

(Whole Group)

Conceptual Perspectives:

Intelligent Behaviors:

Literary Perspective:

Student/Teacher Reflections

Concept:

Topic:

Generalization(s):

Essential Question(s):

Task Rotation Menu

Level	Mastery	Understanding	Self-Expressive	Interpersonal
1				
2				

3				
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Materials Needed for Task Rotation and/or Task Rotation Menu

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MetaCognitive Discussion (Essential Questions):

(Whole Group)

Conceptual Perspectives:

Intelligent Behaviors:

Literary Perspective:

Student/Teacher Reflections:

**Student Reflections and Assessments
Task Rotation Learning Experience
Grade 4**

All conceptual activities must include discussing and/or relating to the selected generalization(s) through essential questions.

<p align="center">Mastery Learner (A) Sensing- Thinking</p> <p>Construct a time line with at least five tech. inventions associated with North Carolina related to need for change . Demonstrate how they have promoted problems/solutions in the way we live in NC.</p> <p align="center">V _ L _ S _ M _ B _ P _ I _ N _</p>	<p align="center">Interpersonal Learner (B) Sensing-Thinking</p> <p>NC News14 reports that the gas at the pumps has shot up to an all time high! Discuss with a friend possible improvements that can be made to the automobile to reduce fuel consumption. Prioritize and evaluate your choices. Role play reporting your results to the class.</p> <p align="center">Scamper</p> <p align="center">V _ L _ S _ M _ B _ P _ I _ N _</p>
<p align="center">Understanding Learner (C) Intuitive-Thinking</p> <p>Research and summarize five technological inventions related to NC. Classify the inventions according to social, political and economic impact and explain their importance.</p>	<p align="center">Self-Expressive Learner (D) Intuitive-Feeling</p> <p>Imagine you are an inventor in North Carolina today. Observing the world around you, generate five inventions you believe are needed to improve lives today as well as promote positive change for the future? Choose one and create a prototype of this invention complete.</p>

V _ L _ S _ M _ B _ P _ I _ N _	V _ L _ S _ M _ B _ P _ I _ N _
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More Complex Generalizations (Two or more concepts):

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Materials Needed for Task Rotation and/or Task Rotation Menu

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-

MetaCognitive Discussion (Essential Questions):

(Whole Group):

Conceptual Perspectives:

Intelligent Behaviors:

Literary Perspective:

Student/Teacher Reflections

Math Student Reflections and Assessments

Task Rotation Learning Experience

K-2

All conceptual activities must include discussing and/or relating to the selected generalization(s) through essential questions.

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<p>Understanding Learner (C) Intuitive-Thinking</p> <p>V _ L _ S _ M _ B _ P _ I _ N _</p>	<p>Self-Expressive Learner (D) Intuitive-Feeling</p> <p>V _ L _ S _ M _ B _ P _ I _ N _</p>

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More Complex Generalizations (Two or more concepts):

Essential Question:

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Materials Needed for Task Rotation and/or Task Rotation Menu

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MetaCognitive Discussion (Essential Questions):

(Whole Group)

Conceptual Perspectives:

Intelligent Behaviors:

Literary Perspective:

Student/Teacher Reflections:

Additional Support Materials:

Favorite Read-Alouds:

Finger Plays, Nursery Rhymes and Songs:

Video Clips:

Paintings & Prints:

Teacher Reflections

Literary Selection

Date

School

Grade

1. What were the strengths of the task rotations and/or other activities?
2. How did the task rotations and/or activities reveal students' Intelligent Behaviors? Please discuss how each Intelligent Behavior manifested it self.
3. What would you change or add the next time you taught this lesson?
4. What opportunities for growth does the resource unit have?
5. What were "ah ha's?" for the students? For teachers?

“Additional Comments

APPENDIX

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Additional Instructional Concept-Based Activities