Project Bright IDEA 2: Interest Development Early Abilities

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Concept: Force and Influence

Topic: Technology Influences Change

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Grade Level: 5

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 – Technology Influences Change Text – The Homework Machine Author – Dan Gutman Publisher/Date – Simon and Schuster, 2006

Concepts	Themes		
 Force or Influence Relationships Conflict Systems (beating the system, systems of conflict) 	 Relationships can transcend differing perspectives Technology can have a positive or a negative influence on people Conflict can influence change 		
Issues or Debates	Problems or Challenges		
 Right vs. wrong Man vs. technology War on terror 	 Appearances can be deceptive Accepting consequences Death Peer pressure 		
 Discussions Debates Novel and character analysis 	 The development of technology has changed the course of history and social interaction. Conflict is built into the nature of life. Relationships are essential to a high quality of life. 		
Paradoxes	Assumptions or Perspectives		
 Sum of the parts is greater than the whole. Things can be perfect because they are flawed. War can be necessary to bring about peace. 	 Technology has improved the quality of life; however, it can cause laziness. Technology has impacted social values and judgments. As the world rapidly becomes more technologically oriented, it is important to preserve fundamental values and beliefs. 		

Concept: Force and Influence Topic: Technology Influences Change

Suggested Text Selection(s): <u>The Homework Machine</u> by Dan Gutman

Look, Listen and Identify:

Intelligent Behaviors: Creating, Imagining, and Innovating; Finding Humor, Questioning and Posing Problems, Listening with Understanding and Empathy, Applying Past Knowledge, Thinking about your Thinking, Thinking and Communicating with Clarity and Precision

Story Focus: Conflicts, Influence, Relationships, and Technology

Student Activities: see task rotations

NC Standards:

-NC SCOS Social Studies Goal Six: The learner will recognize how technology has influenced change...

-NC SCOS Social Studies Goal 4.05: The learner will describe the impact of wars and conflicts on United States citizens, including the twenty-first century war on terror

Local Pacing Guide Timeline:

Thinking Skills Focus: Analyze, Create, Evaluate

Topic Focus: Technology influences change

Concept Focus: Force and Influence

Overarching Generalizations:

-Force influences or changes -Influence can cause dependency or interdependency -Force and influence can be used positively or negatively

More Complex Generalizations (Two or more concepts):

-Relationships can transcend systems.-Force and influence can impact relationships.-Conflict is a key component of relationships

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:

- When and if is it acceptable to break the rules?
- Is it possible to "beat the system?" Which system deserves to be beaten? Explain?
- At what point does technology stop being a tool and start becoming a crutch?
- Are there any circumstances in which technology can be dangerous? If so, give examples. How can your protect yourself from the dangers of technology?
- Think about a conflict you've been involved in or a conflict that takes place in the book. What events preceded this conflict? As you discuss these events with the class, do you notice any patterns in what precipitates conflict?
- Relationships can be positive or negative. Thinking about relationships you've been in, what makes a relationship good or bad?

Suggested Vocabulary Words for Discussion:

perspective	rebelling
paradox	morally
distraught	technically
curriculum	interval
hallucinating	system
crude	influence
egghead	justify
opposing	infiltrate
association	edification
damper	dossier
traitor	gambit
irrationally	
eradicate	

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

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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:

Take a word home to dinner

Choose a word each day that the class will discuss. Students should then try to use the word appropriately at home that evening. The next day, have a class discussion about how the word came up in conversation and what the discussions were about.

Key Word Strategy

- 1. The teacher preselects words and phrases that students will be expected to understand from the reading. Most of these words should already be known.
- 2. In cooperative groups, students connect words that fit together meaningfully (no guessing)
- 3. The whole class discusses how the words connect. This sets a purpose for reading and acts to motivate readers with a desire to find out the meaning of unknown words.
- 4. The students are given a few more minutes to see if they can uncover the meanings of the unknown words in their groups. (dictionary, glossary)
- 5. The whole class discusses what was discovered

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

Six Facets of Understanding

Facet 1 – EXPLANATION

How has technology affected the way that humans interact? Give examples.

Facet 2 - INTERPRETATION

How does technology enhance your life? How does technology complicate your life?

Facet 3 - APPLICATION

How does the development of technology affect social and personal values? Think about cheating, accessing information, and honesty.

Facet 4 - PERSPECTIVE

How can you beat the system? Which systems deserve to be "beaten" and why?

Facet 5 – EMPATHY

How has using technology made you a better person? In what ways has it allowed you to positively contribute to society? In what ways do you feel it has impacted your relationships with others?

Facet 6 – SELF-KNOWLEDGE

What values and judgments do you have? How did you form those values and judgments? Has technology played a role in them?

Read: Pre-reading task rotation, to be done before reading the book Task Rotation Learning Activities Habit of Mind: Questioning and Posing Problems

Grade 5 All conceptual activities must include discussing and/or relating to the selected generalization(s) through essential questions.

Mastery Learner (A) Sensing- Thinking	Interpersonal Learner (B) Sensing-Thinking	
 Choose a technological invention from the last 200 years that affects communication. Research the invention. Write a report describing the invention itself, the uses of the invention, and showing the invention's effect on communication. Also discuss some of the problems or issues associated with the invention. Do you feel that the benefits outweigh the problems? Explain your reasoning. 	 With a group of three other students, brainstorm two or three different technologies that you use (ex: video games, IM, cell phones, etc). Discuss the advantages and disadvantages of each technological discovery. Create two 2-minute skits: one in which you feature the benefits of the technologies, and one which features the drawbacks of the technologies. V_L_S_M_B_P_I_N_ 	
Understanding Learner (C) Intuitive-Thinking	Self-Expressive Learner (D) Intuitive-Feeling	
• Compare and contrast the advantages and disadvantages of doing your	Suppose that your town lost power for an entire day. The phones, electricity, internet connections,	
 homework yourself or having a machine that is capable of doing it for you. Use a graphic organizer such as a Venn Diagram, or thinking map. Use your work to make an argument for whether or not it is ethical to use such a machine. Explain your position. 	 and cable tv are all disabled. Choose one of the following ways to express that day: Write a song, write a poem, compose a song, create a wordless picture book. Be sure to include how the town functioned without the technology it is accustomed to. Do you feel that our society has become too reliant upon technology? Explain your reasoning and support it with examples from your story. 	

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Real World Connections With Products: song, poem, venn diagram, thinking map, repot, skit

Real World Applications: Journalist, poet, musician, marketing executive, librarian, inventor, actor, activist.

Real World Terms: Report, debate, create, discuss, role-play, write, perform

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: influence and technology

Overarching Generalizations:

-Technology can influence change.

-Technology can allow people to "beat the system."

More Complex Generalizations (Two or more concepts):

-Technology can be both a positive and negative force when applied to social relationships.

Essential Question

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

See chart above.

Materials Needed for Task Rotation and/or Task Rotation Menu

- Notebook paper
- Access to research sources (encyclopedias, Internet, etc.)
- Drawing paper
- Crayons, markers, colored pencils, etc.

MetaCognitive Discussion (Essential Questions):

(Whole Group)

Conceptual Perspectives:

How does technology help? How does technology hinder? When do technology and ethics clash? (ex: stem-cell research, using it to cheat, hacking, etc.)

Intelligent Behaviors:

What intelligent behaviors could we use to make decisions about the ethical use of technology? What intelligent behaviors help you use technology?

Using your past knowledge, think about a time when you used technology in a positive way. Now think about a time you used technology in a negative way.

Literary Perspectives:

- 1. What is influence?
- 2. What are some ways that you influence others?
- 3. How does technology influence our society today? How might it influence our society in the future?
- 4. Who are the people that influence you? Why do you think they have the power to influence you?

Student/Teacher Reflections

Second Rotation Learning Activities (after reading chapters 1-5) Sub-concept: Relationships

Habit of Mind: Listening with Understanding and Empathy

Grade Five

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

Mastery Learner (A) Sensing- Thinking

You are helping the police gather information for their investigation. Create a police file for each member of the D-Squad. Each file should contain:

- a picture and physical description of the person
- a dossier of their in-class behavior.
- information on any life situations or events that may be influencing their behavior, suspicious activities and changes in behavior patterns, including how technology is influencing them.
- Write a brief police report evaluating the reasons that such a diverse group of students has suddenly become such good friends in spite of their differences.

V_L_S_M_B_P_I_N_

Understanding Learner (C) Intuitive-Thinking

You are assisting the police psychologist in understanding the D-Squad kids.

- Choose three members of the D-Squad and create a triple-Venn diagram outlining their similarities and differences.
- Take appearance, attitudes, families, and behavior into account.
- Using this information, analyze each child's personality and summarize how the children are influencing each other.
- Predict what you think they will do next in this situation.

V_L_S_M_B_P_I_N_

Interpersonal Learner (B) Sensing-Thinking

You will be going undercover as a student in Miss Rasmussen's class. Your job is to infiltrate the D-Squad and determine which student has the most influence within the group.

- You will share your thoughts about the systems of influence in the D-Squad and make a choice about which member should be transferred to another class.
- Keep in mind how the transfer will affect the chosen student.
- Share and justify your decision by audiorecording your testimony with a partner. Your partner will question you while you testify, then switch roles.

V L S M B P I N

Self-Expressive Learner (D) Intuitive-Feeling

You have been hired to replace Miss Rasmussen. How would you go about building relationships with each student in your class? Think specifically about the students mentioned in the book (including Ronnie).

- How will you find ways to connect with them, both as individuals and as a group?
- If you built relationships with these students, how could you influence their behavior and their use of the homework machine?
- Submit your plans to your principal in a portfolio.

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<u>V_L_S_M_B_P_I_N_</u>
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Real World Connections With Products: discussion, triple venn, audio recording, report, portfolio

Real World Applications: police officer, undercover agent, psychologist, teacher

Real World Terms: determine, create, report, predict, outline, think

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: relationships and influence

Overarching Generalizations:

People can influence one another Influence can be positive or negative

More Complex Generalizations (Two or more concepts):

People who are influential have power over those they influence Sometimes an attempt to use influence for good can turn out negatively

Essential Question(s):

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

See chart above

Materials Needed for Task Rotation and/or Task Rotation Menu

- Notebook paper
- File folders
- Blank audio tapes
- Tape recorder
- Chart paper

MetaCognitive Discussion (Essential Questions):

(Whole Group)

Conceptual Perspectives:

In what ways do people influence one another? How can influence be positive? How can it be negative? What does the word relationship mean to you? How have relationships played an important part in your life? Which relationships in your life are most valuable to you and why?

Intelligent Behaviors:

What intelligent behaviors do we need to use to form successful relationships? In what ways can we demonstrate the following intelligent behaviors in our relationships:

- Listening with Understanding and Empathy
- Finding humor
- Applying Past Knowledge

How do the characters in the book demonstrate the following intelligent behaviors:

- Thinking about your thinking
- Applying Past Knowledge
- Questioning and posing problems
- Finding humor
- Creating, Imagining, and innovating

Why is it important to use intelligent behaviors when we build relationships?

Literary Perspective:

1. Up to this point, how have the characters in the book influenced each other?

2. How have the character's relationships with each other already changed in this section?

3. What kind of relationships do you think might develop between the characters as the book proceeds?

Student/Teacher Reflections

Concept: Force and Influence

Topic: Peer Pressure

Generalization(s): People can influence others to do things they wouldn't ordinarily do. Peer pressure can be positive or negative.

Essential Question(s): What is peer pressure and how can it affect people?

	Task Kotation Menu			
Level	Mastery	Understanding	Self-Expressive	Interpersonal
1	What is peer pressure? Create a public service announcement that defines peer pressure and gives strategies for combating it.	Peer pressure can be positive or negative. Create a graphic organizer that gives examples of how peers can influence each other positively and negatively.	Create an acrostic or concrete poem encouraging kids to resist negative peer pressure.	Think of a time when you felt pressured by a peer. Write a descriptive paragraph describing the situation and how you handled it.
2		Do you feel that your opinion of the war comes mostly from your own thoughts, or from the opinions of others (friends, family, etc.)? Explain. ***Ignore this - it's just an idea we wanted to record***		
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Task Rotation Menu

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:

(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

MetaCognitive Discussion (Essential Questions):

(Whole Group)

Conceptual Perspectives:

Intelligent Behaviors:

Literary Perspective:

Student/Teacher Reflections:

Third Task Rotation Learning Experience (chapters 6-10) Sub-concept: Conflict

Grade 5

Habit of Mind: Thinking and Communicating with Clarity and Precision All conceptual activities must include discussing and/or relating to the selected generalization(s) through essential questions.

Mastery Learner (A)	Interpersonal Learner (B)	
Sensing- Thinking	Sensing-Thinking	
 Judy and Snik have conflicting opinions about the Iraq war. Write a paragraph outlining each character's perspective on the Iraq war. Use print or online resources to research the war. Find support for Judy's opinions and Snik's opinions. Display your findings in a table or chart. Whose point of view do you most agree with? Explain the factors that influenced your feelings about the war (ex: tv, parent's opinions, research, etc.) V_L_S_M_B_P_I_N_ 	 Think back to the conflict of interest between Snik and Ms. Rasmussen with the 10 commandments of homework (pgs. 17-20). In a paragraph, discuss the following: What is your opinion of Snik's response to the homework? How do you feel about the grade Ms. Rassmussen gave him? Was it fair? Why or why not? Create your own 10 commandments of homework. Be sure to justify each commandment the way Snik did by giving supporting reasons for your ideas. V_L_S_M_B_P_I_N_ 	
Understanding Learner (C)	Self-Expressive Learner (D)	
Intuitive-Thinking	Intuitive-Feeling	
 Brendan relates chess to war in the book (pgs. 56-57). Now, think about the way war and chess cause conflict within the book. Analyze how both war and chess influence the relationships within the story, being sure not to limit yourself to just the D-Squad characters. Write your observations in a paragraph. Create a character web on a piece of poster board. Link the two characters with string. Put a note card with your observations about the relationship between the characters on the string. Make at least three connections. 	 Suppose that Belch had not become artificially intelligent. This would eliminate part of the man versus technology conflict from the book. Rewrite the end of the book, imagining that Belch's awareness had not influenced the D-Squad to catapult him into the Grand Canyon. You may work in a small group. Present your ending in written, theatrical, or film format. On your own, write a paragraph describing how this book has influenced your opinions on the current trend of scientists trying to develop machines that can think for themselves. In your opinion, is this a good thing – why or why not? What advantages and disadvantages can you see stemming from this technological advance? 	

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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: (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

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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 5

Habit of Mind: Applying past knowledge to new situations All conceptual activities must include discussing and/or relating to the selected generalization(s) through essential questions.

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 Mastery Learner (A) Sensing- Thinking You will choose three technological advancements, one of which must be Belch from <u>The Homework Machine</u>. Using a table or a diagram to list details about what life was like before and after the creation of the technology. Then, determine which technological advancement was the most important and give at least five reasons for your selection. 	 Interpersonal Learner (B) Sensing-Thinking Get into a group with at least two other students. Brainstorm a list of technological advancements that have occurred in your lifetime. Debate the pros and cons of each. After the debate, work individually on the following task: Choose four diverse professions (ex: teacher, farmer, journalist, auto mechanic, and doctor). Put yourself in the shoes of each profession and decide what piece of technology would you be willing to eradicate. Be sure to cover all four professional perspectives. Your final product may be poster, a series of persuasive paragraphs, or another format of your choice.
 Understanding Learner (C) Intuitive-Thinking Compare and contrast the effect that Belch has on the characters in <u>The</u> <u>Homework Machine</u> with the way a technological development of your choice (ex: X-box, cell phones, etc.) has effected your family. What conclusion can you make about how technology influences social relationships and fundamental values? 	 Self-Expressive Learner (D) Intuitive-Feeling Think about something that has been difficult for you. Now imagine that you have invented a technological wonder that will solve that problem (for example: a book zapper that automatically transports your school books home for you). Draw or briefly describe your invention. Create two marketing campaigns: one that highlights all the advantages of your invention, and one that highlights any drawbacks or downsides to your invention. Your campaigns may include billboards, commercial jingles, print ads, or any other
V_L_S_M_B_P_I_N_	format you desire. V_L_S_M_B_P_I_N_

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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:

(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

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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

A

Additional Instructional Concept-Based Activities