Empowering Students to Grow as Civic and Global Minded Leaders Through Student-Led Action Research and Inquiry

Presentation from Ridgecrest Elementary School

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A presentation from the Ridgecrest Center for Gifted Studies

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What is Action Research?

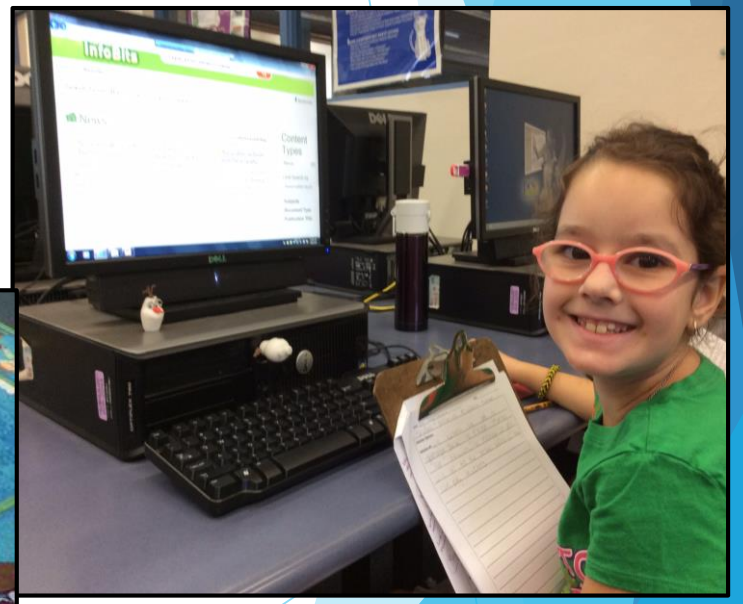
- Performed by students, within or outside of schools and classrooms, with the purpose of impacting school, community and global issues (Rubin & Jones, 2007)
- Contributes to the positive development of academic, social and civic skills of students (Rubin & Jones, 2007).
- Process of identifying a dilemma or question related to a problem and creating an open-ended research question

  (Dana & Yendol-Hoppey, 2009).
- Follows a cycle of questioning; observing; gathering and analyzing data; and, acting on the new knowledge

  (Cochran-Smith & Lytle, 2009).

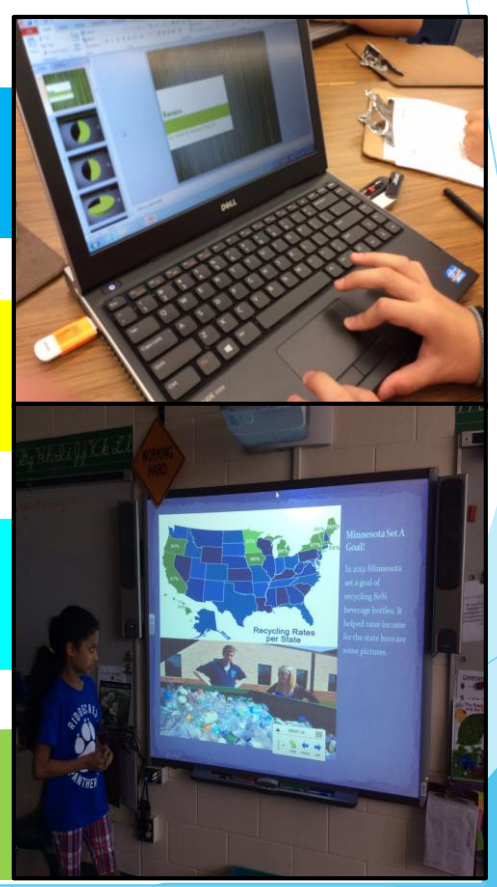
Why Use Action Research?

- Develops Civic Minded Approach
- Real World Problems
- Synthesize Subject Areas
- Allows for Creativity
- High Order Thinking Skills
- Research Skills
- Integrates Technology
- Student Collaboration
- Presentation and Leadership Skills
- Students Love it!
- https://www.youtube.com/watch?v=ZHiZdh85R3w



How Action Research Supports the National Gifted Standards

- Use a variety of research tools and methodologies
- Apply ethical standards to research and analyses
- Accept divergent views to positively effect change
- Identify, generate and evaluate significant questions within and across disciplines

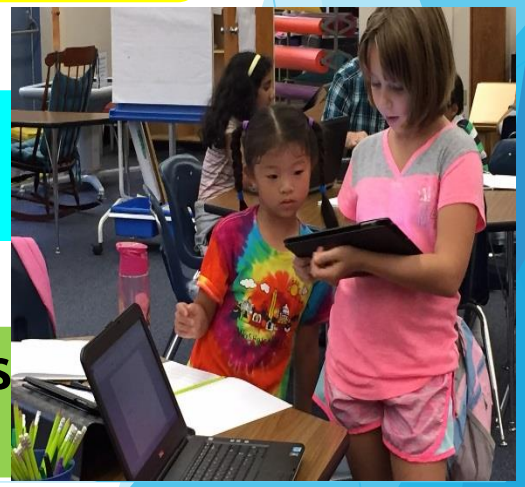


How Action Research Supports the National Gifted Standards

Identify and investigate a problem and generate supportive arguments from multiple perspectives of a complex issue

Use and evaluate various problem-solving methods to determine effectiveness in solving real-world problems

Create products that synthesize information from diverse sources illustrating divergent solutions or perspectives



Allows student to gain deeper empathy and leadership skills through service learning

Depth of Knowledge (DOK) Chart

LEVEL ONE – RECALL/REPRODUCTION

Recall a fact, information, or procedure. Process information on a low level.

LEVEL TWO – SKILL/CONCEPT

Use information or conceptual knowledge, two or more steps.

LEVEL THREE – STRATEGIC THINKING

Requires reasoning, developing a plan or a sequence of steps, some complexity.

LEVEL FOUR – EXTENDED THINKING

Requires an investigation, time to think and process multiple conditions of the problem. (Appraise, create, critique, design, judge, justify, prove, synthesize)

Teaching Students the Role of a Researcher

-What is a researcher?

-What is the purpose of a researcher?

-How do researchers improve society?

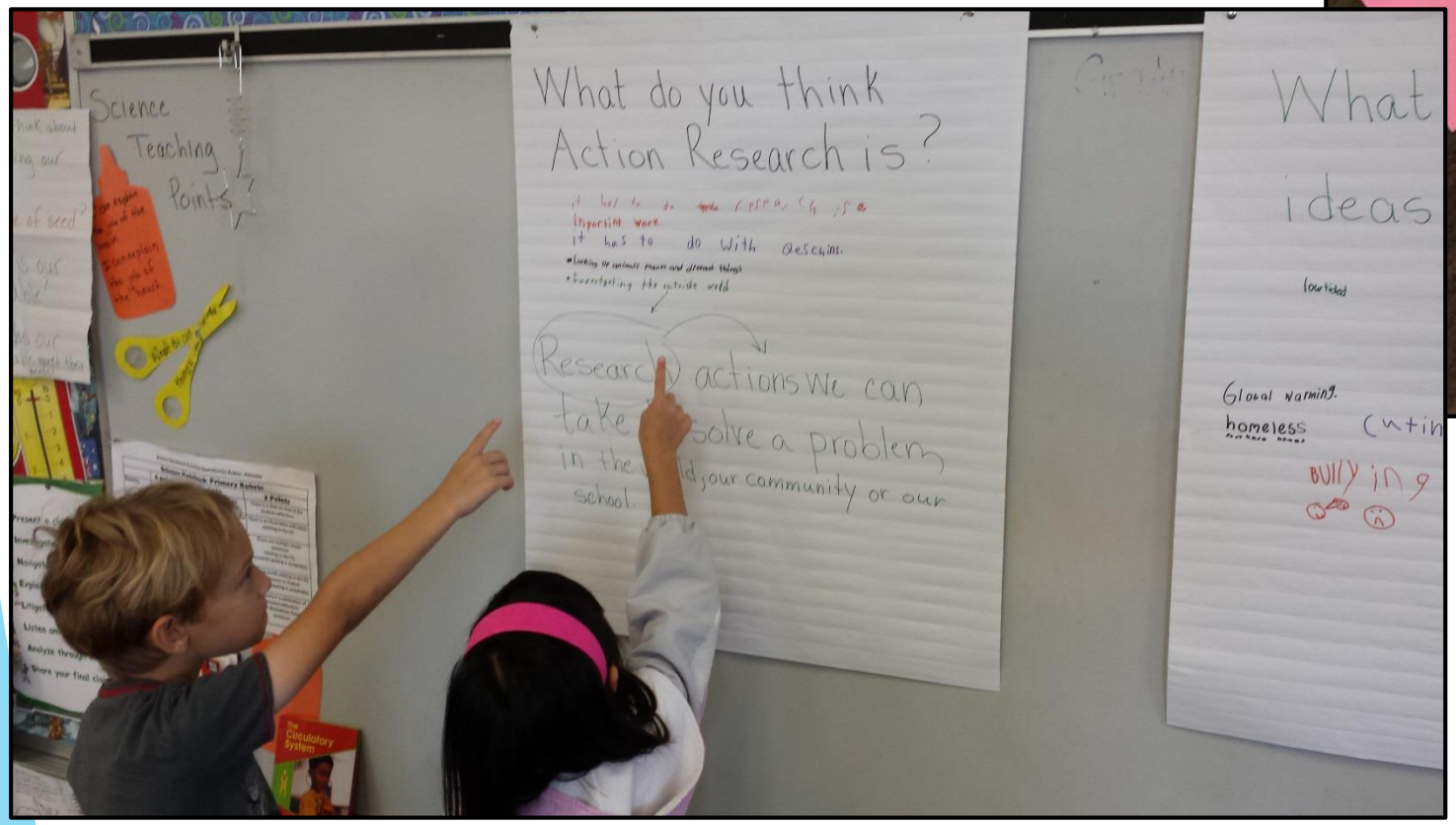
Teaching Students the Concept of a Civic-Minded Student Leader

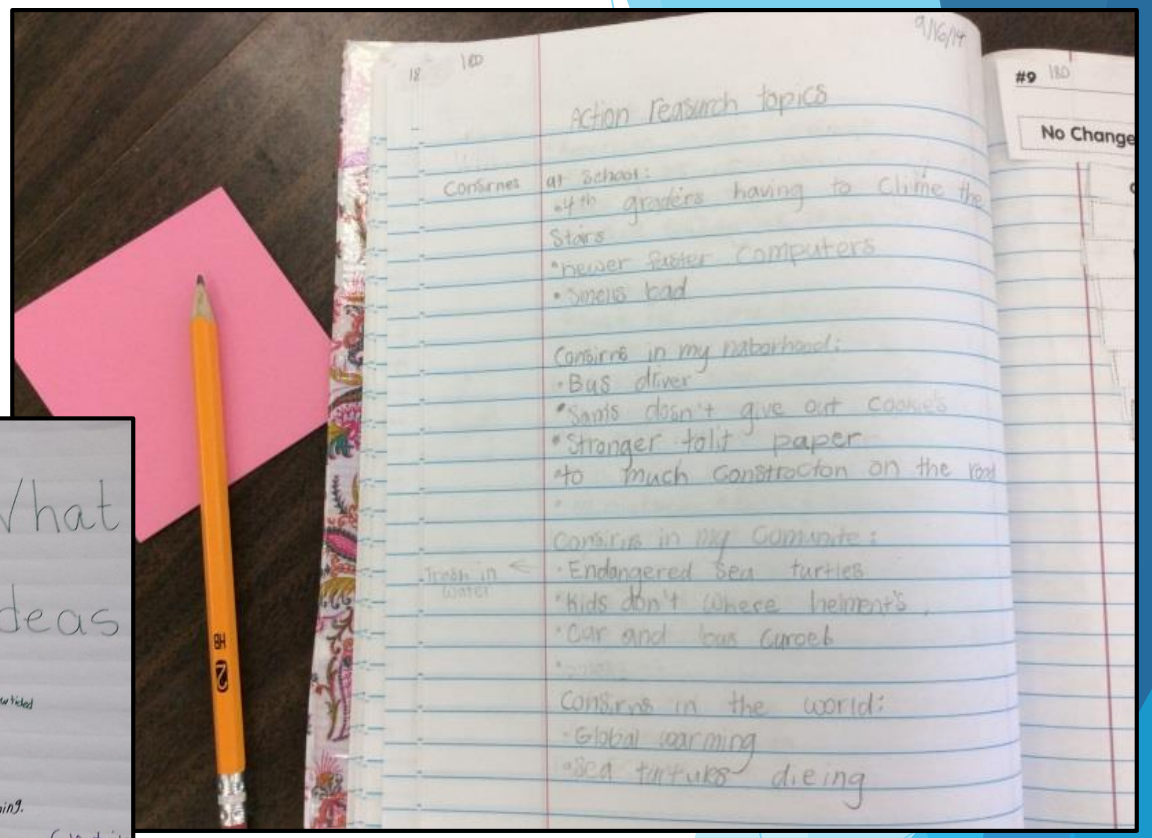
-Define Civic-Minded

-Discuss characteristics of a student leader

-Discuss how students can serve as civic-minded student leaders to improve society

Defining Action Research





Proposed Model for Student Action Research

Identify the Problem

Primary

The students choose individually or in groups a topic to research.

It can be school, community, nationally or globally based.

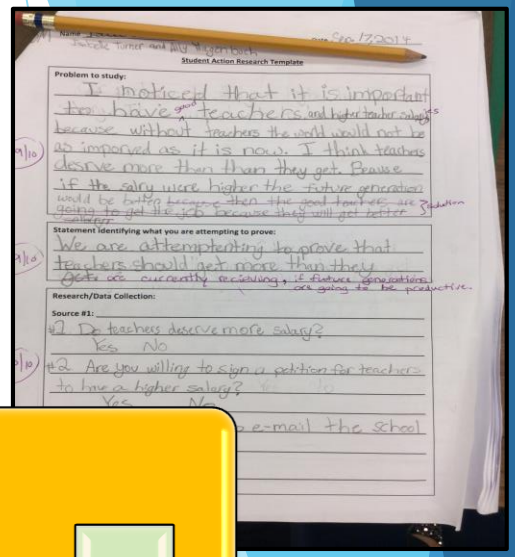
Use guiding questions to help the students evaluate their topic to be sure it is not too narrow or too broad.

Intermediate

The problem can be school, community, national and/or international based.

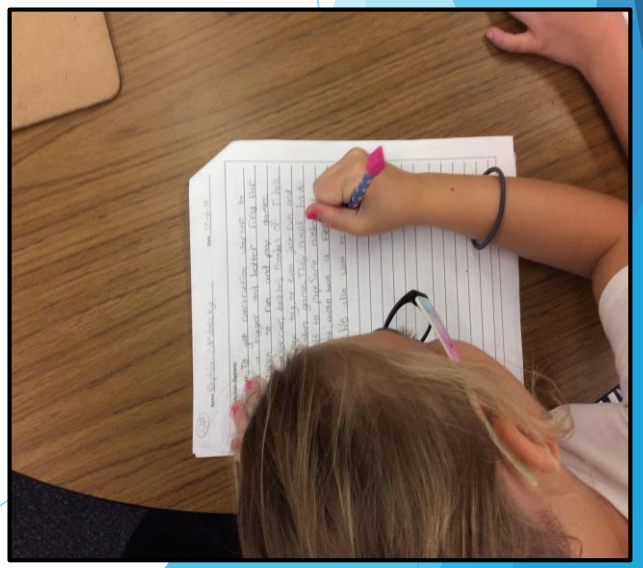
Students write a paragraph explaining the problem and why they selected it.

Students create a statement identifying what they are attempting to prove or identify. This is a one sentence statement.



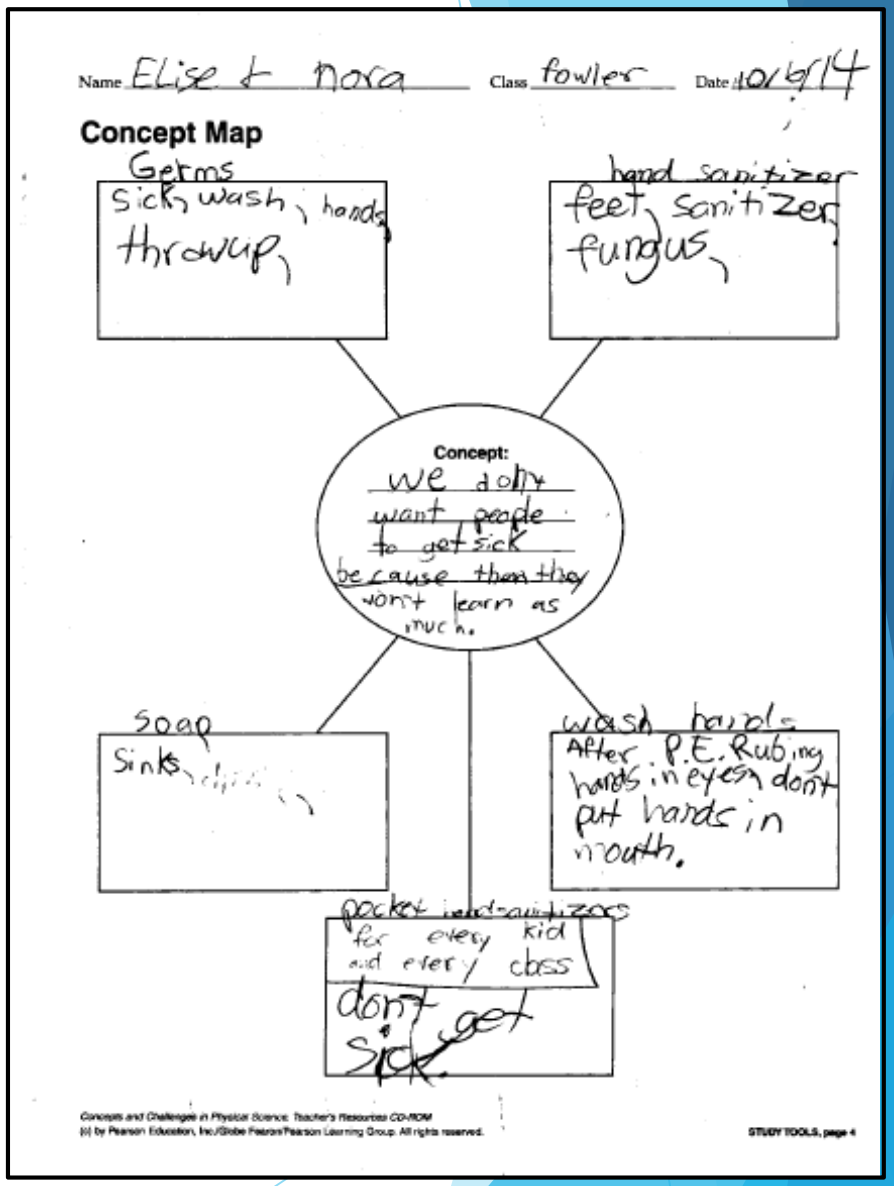
Identifying the Problem - Guiding Questions

- Why are you choosing this topic to research?
- Is it an important and practical problem?
- Is it worth your time and effort?
- Is it something that could be beneficial to you, school, community or world?
- Is the problem stated clearly and in the form of a question?
- Is it broad enough to allow for a range of insights and findings?
- Is it narrow enough to be manageable within your timeframe and your daily work?
- What is the timeline to gather information and to share your recommendations?



Identifying a problem

- Students are collaborating to identify a problem and brainstorm with their Concept Web.



Research and Data Collection

Primary

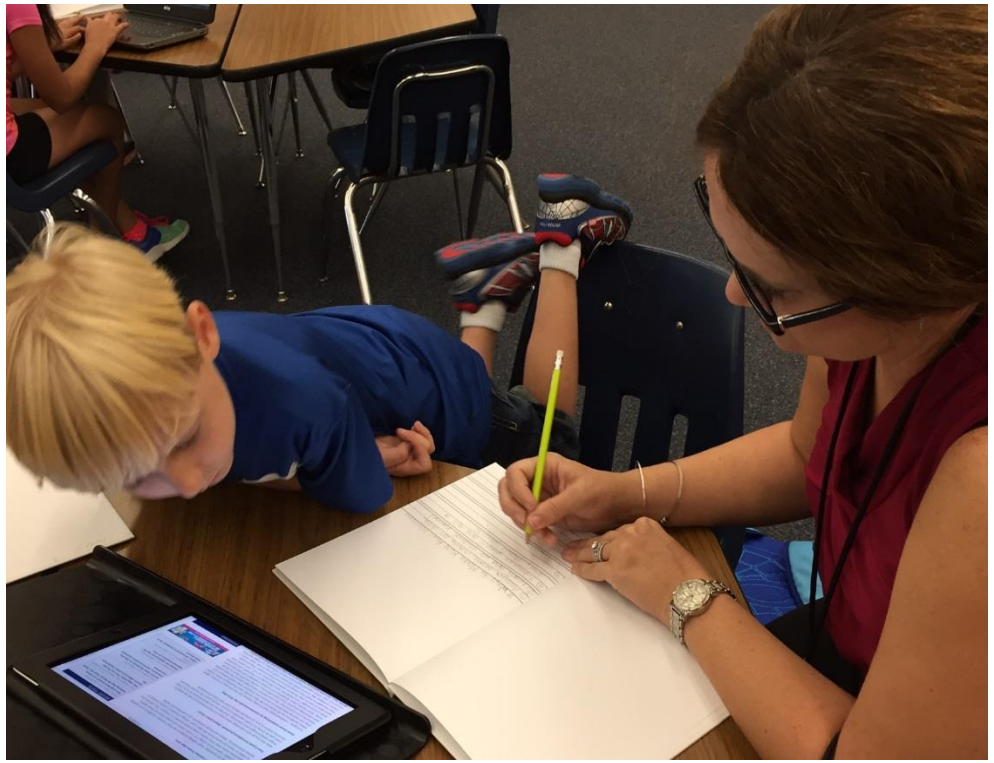
Research gathered through print online and survey is broken down into three parts:

- Research about the topic
- Research how it impacts the community
- Research viable actions that can be taken toward a solution
- Keep a reference list as they research and data collection

Intermediate

- Surveying stakeholders (schoolmates, community members, etc.) on their perception of the severity of the problem, possible solutions, etc
- Using online or print resources to learn about the problem
- Interviewing experts in a field related to your issue
- Keep a reference list as they do your research and data collection.

Creating a Researcher's Journal to Record Data, Findings, Reflections, and Other Key Information

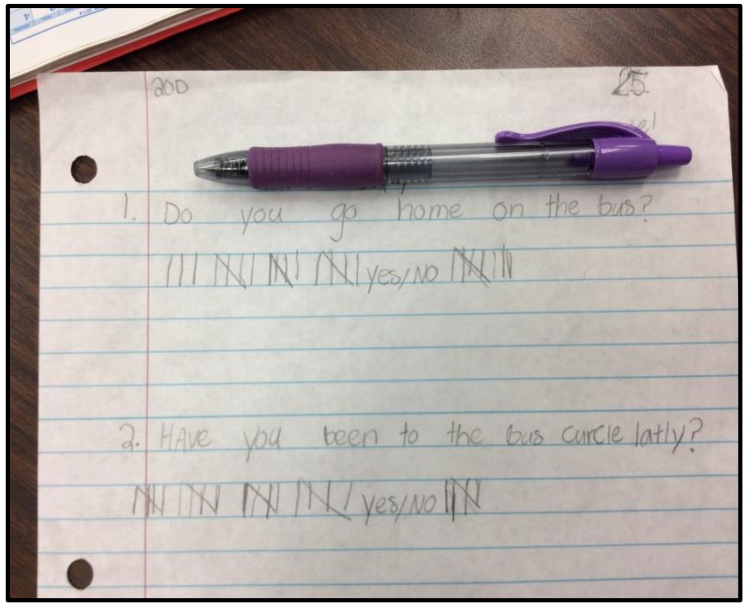


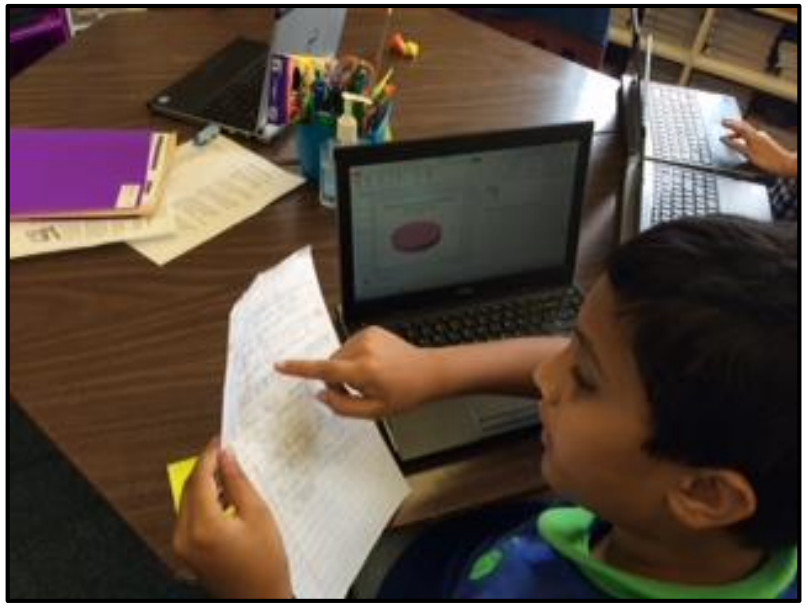
Research- Guiding Questions

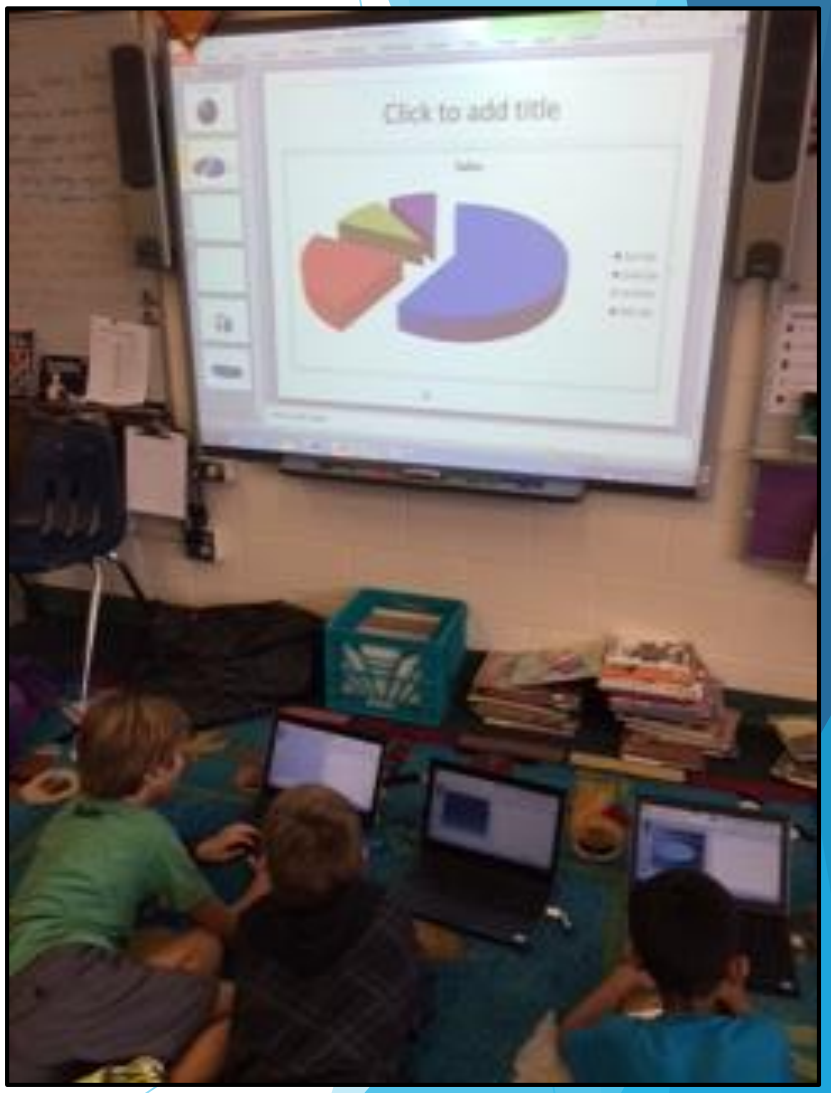
- What types of data should you try to collect in order to answer your question?
- How will you ensure that you have multiple perspectives?
- What resources exist and what information from others might be useful in helping you to frame your question?

Data Analysis-Guiding Questions

- What can you learn from the data?
- What patterns, insights, and new understandings can you find?
- How do these patterns, insights, and new understandings help in making a recommendation for the solution?







Solution

Primary

Students decide on one solution to create a plan of action for.

Students use technology to create a PowerPoint presentation or other media tools to share their action research and implement their plan.

Intermediate

Students list 2-3 solutions to address the problem with 1-2 paragraphs explaining each solution.

Students select the best solution and write 2-3 paragraphs justifying this choice.

Students write 2-3 paragraphs how the solution should be implemented to best address the problem.

Any implications on future challenges or solutions can be shared.

Students use technology to create a PowerPoint presentation or other media tools to share their action research.

Our Ridgecrest Action Research Story

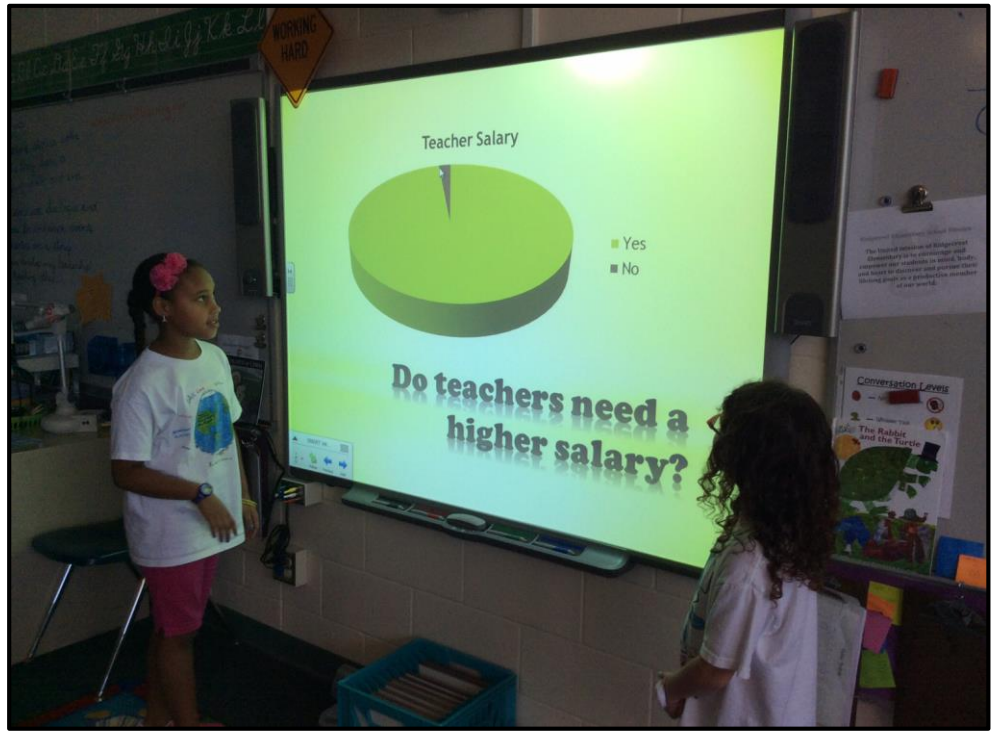
Action Research Topics - School

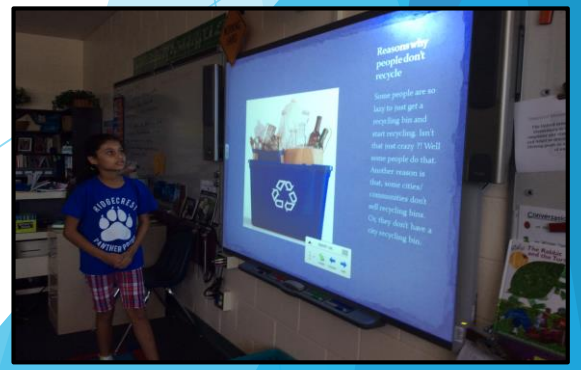
- Bus fumes
- Grass on PE field
- Noise in the cafeteria
- Bullying
- Germs at school
- Newer sinks
- Better tasting lunches

Action Research Topics - Community

- Video game addiction
- Air pollution
- Low teacher salaries
- Homelessness
- Stray Animals
- The Pier

  (St. Petersburg, FL)
- Service animals
- Recycling

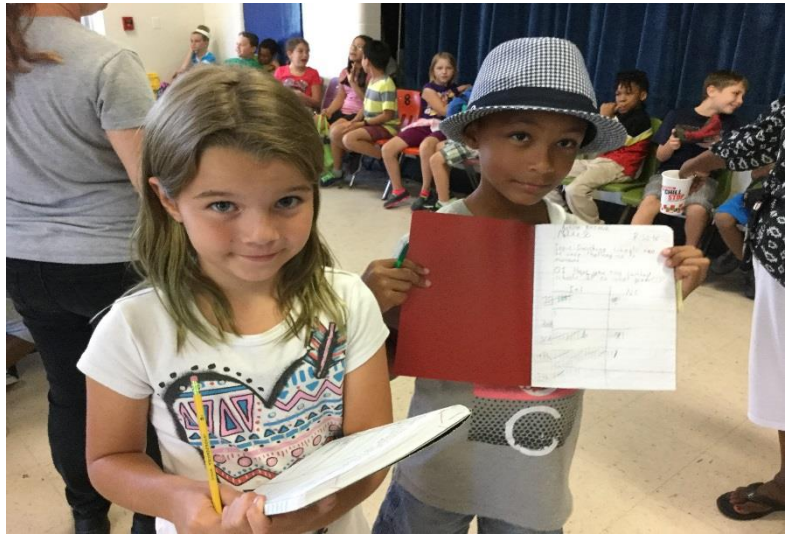


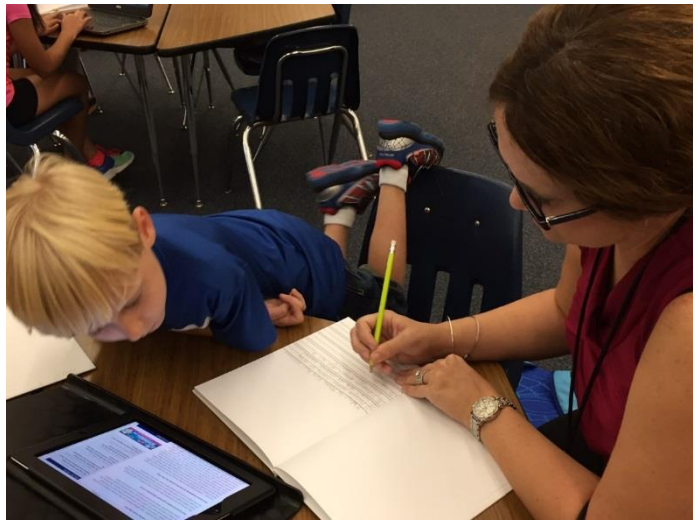


Action Research Topics - Global Concerns

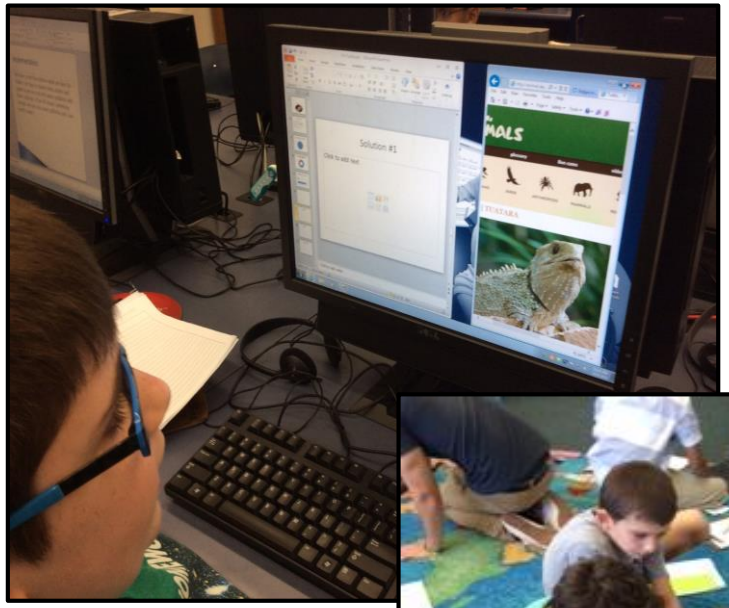
- Poaching
- Water pollution
- Poverty
- Endangered species
- Air pollution

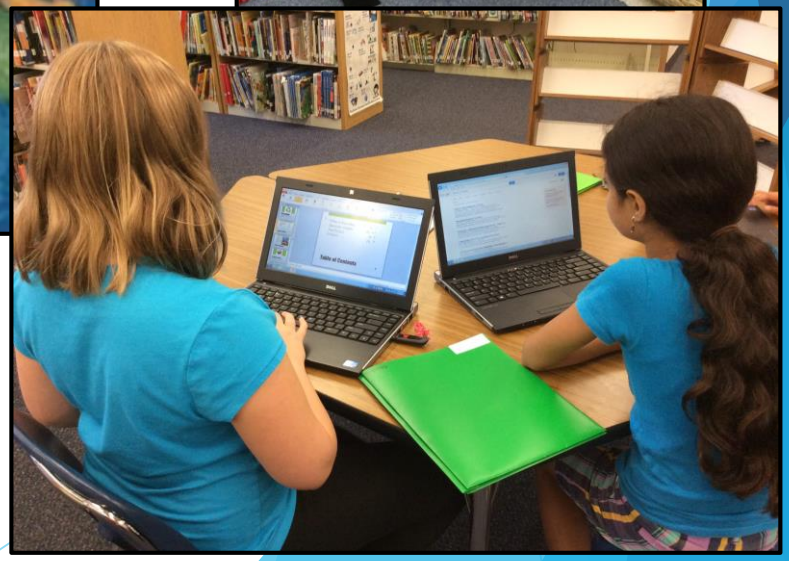
Students using their Researcher's Journal





Researching Using Technology





Reasoning About a Situation or Event

What is the Situation?

Who are the stakeholders for this situation?

What is the point of view for each stakeholder?

What are the assumptions of each group?

What are the implications of these views?

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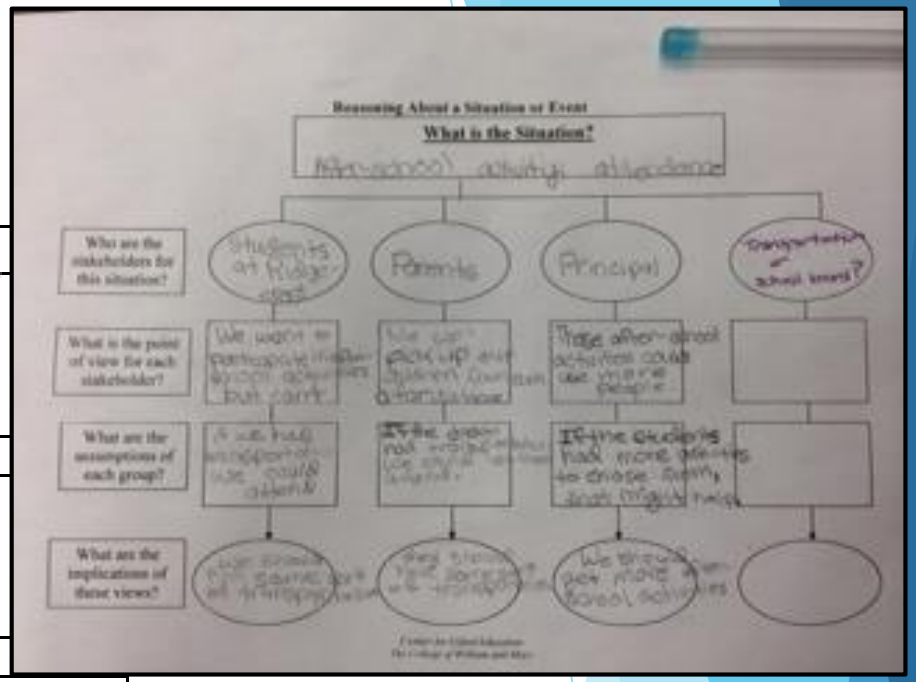
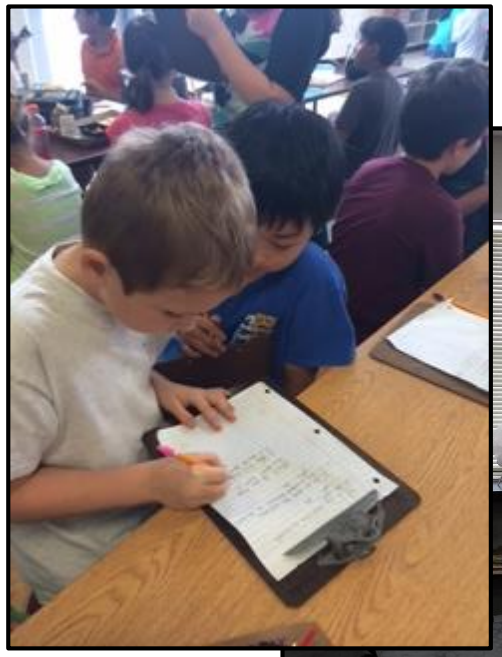
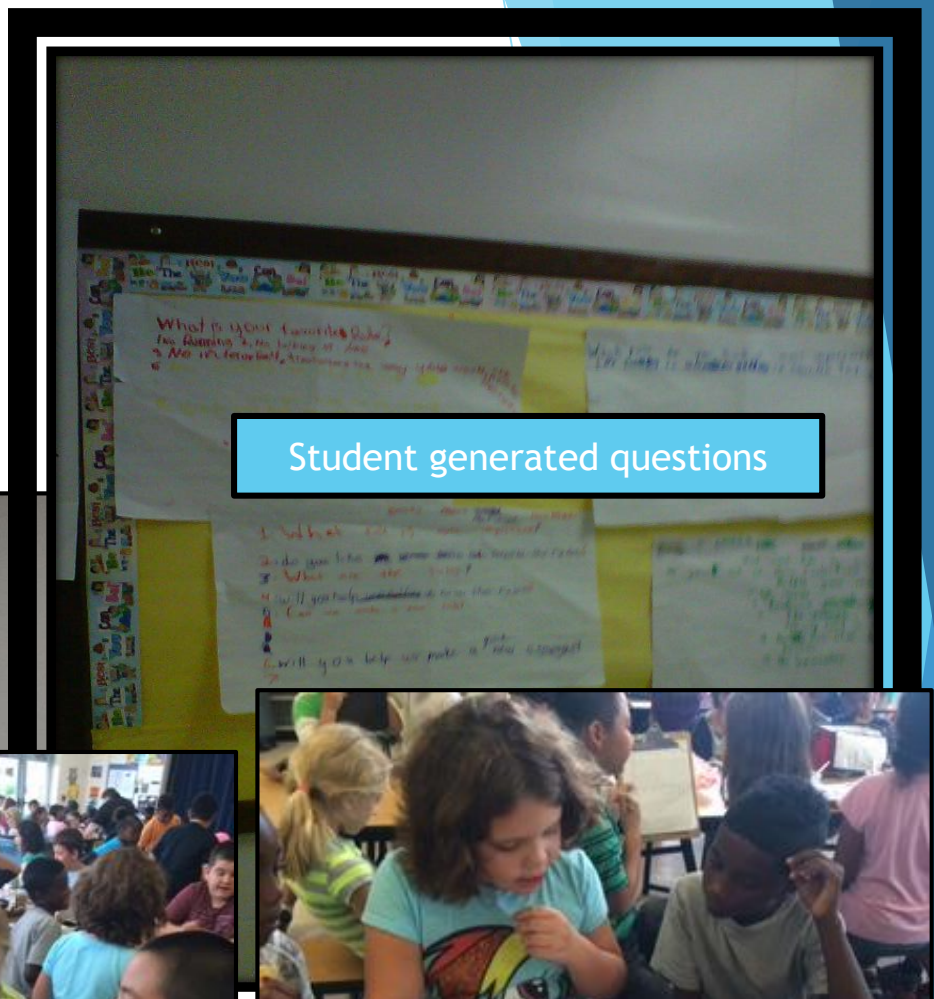


Researching - Taking Surveys





Student grade_____
Do you think rules are important? Yes/No
1. What rule at our school do you think is the most important?

_____

2. Why do you think that rule is important?

_____

3. Why do people break the rules?

_____

4.What rule do you see broken the most often?

_____

5. Why do you think this rule is broken so much?

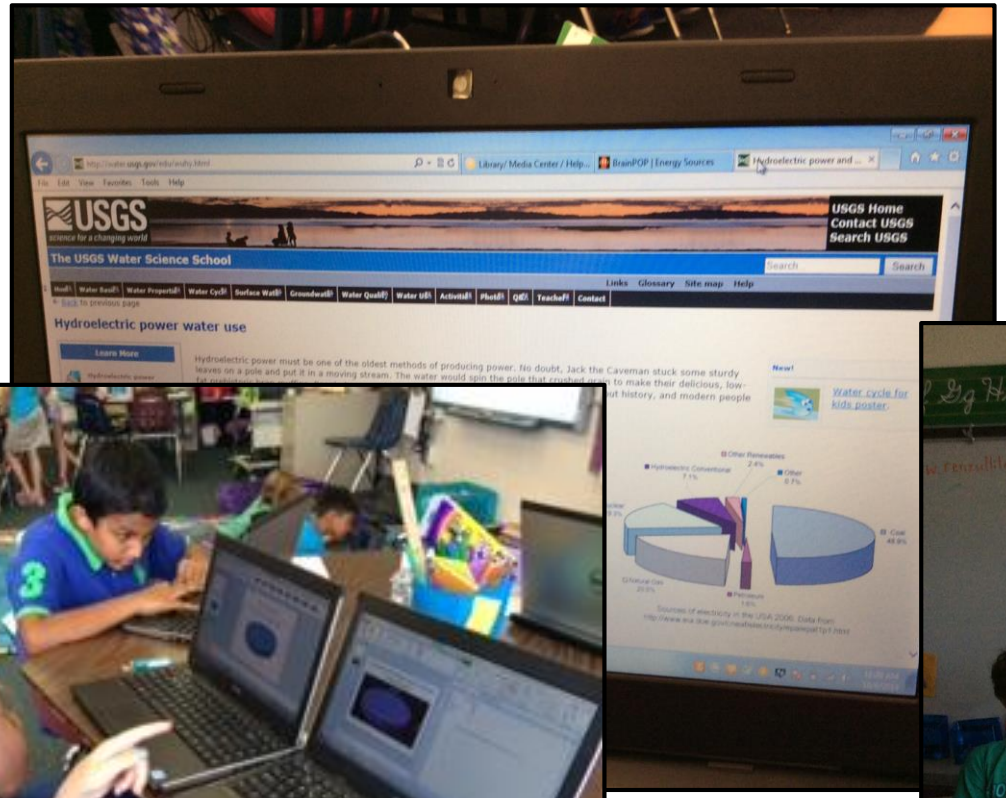
_____

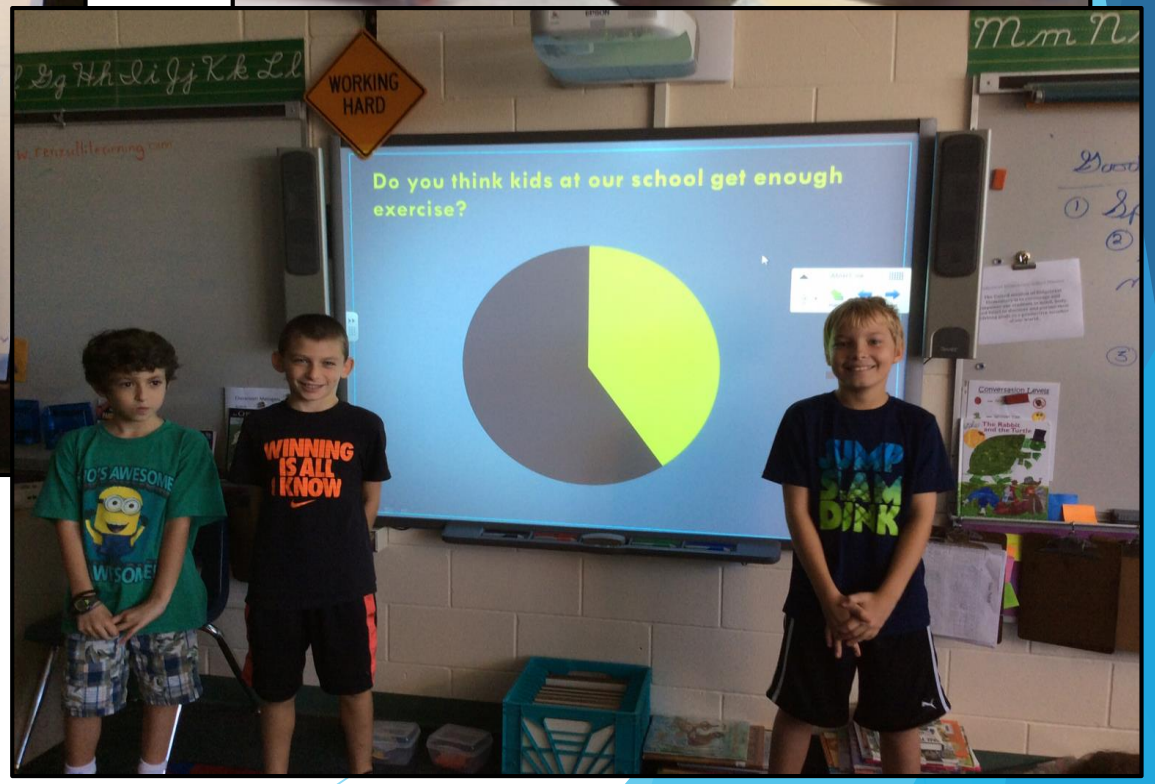
6. How do you think we can get students to stop breaking the rules?

_____

After working in groups, the students generated these questions to survey students and staff.

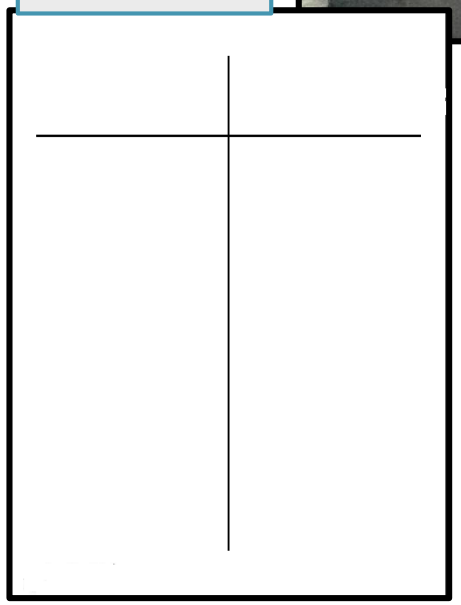
Data Analysis

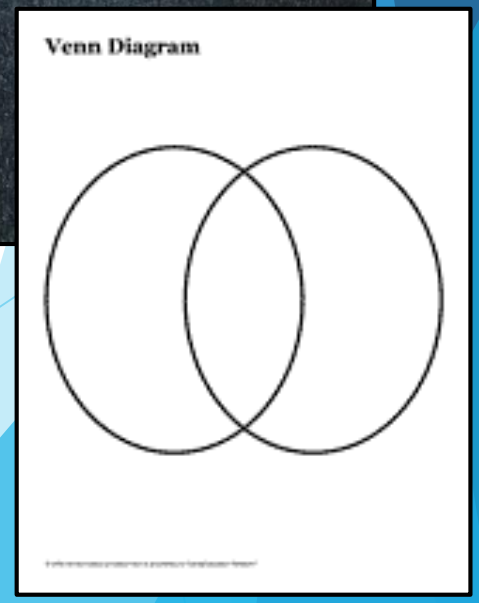




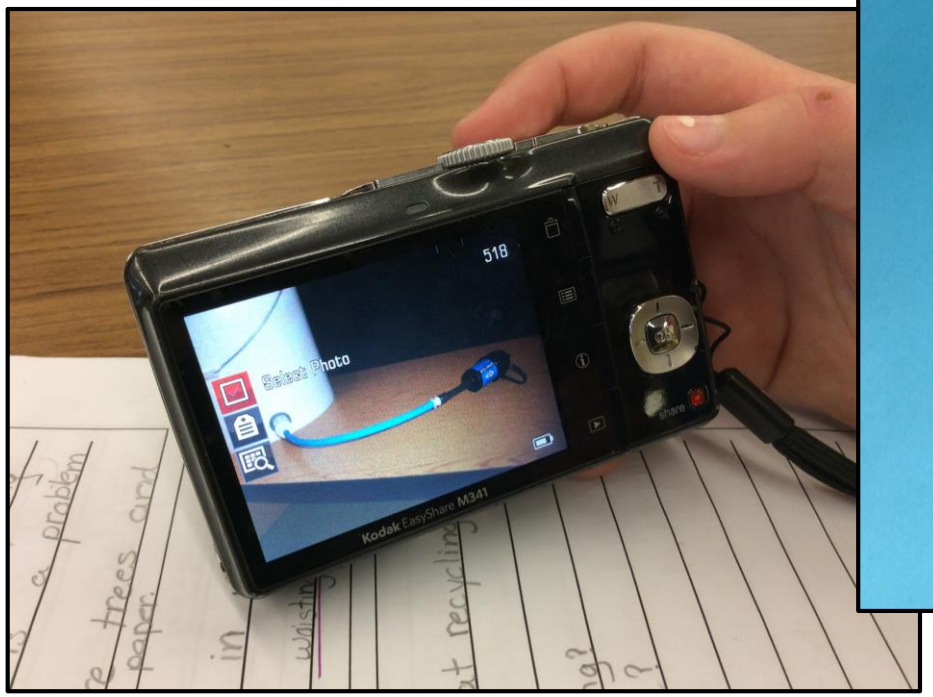
Discussing Solutions

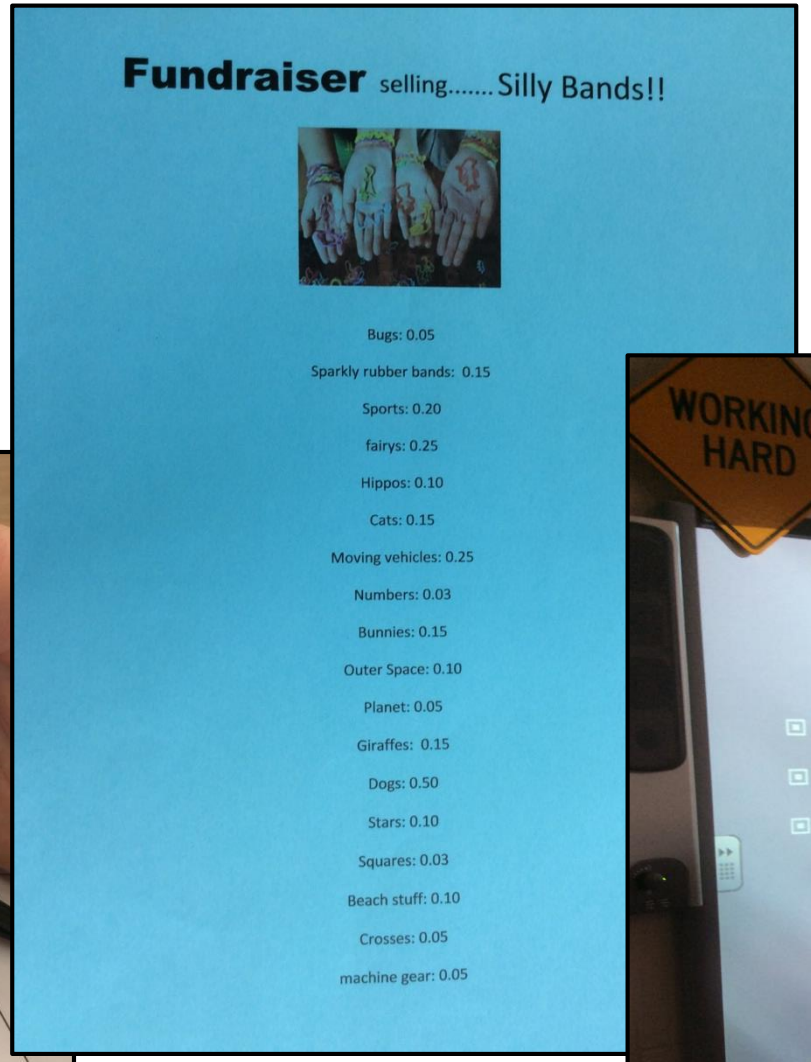
T-Chart

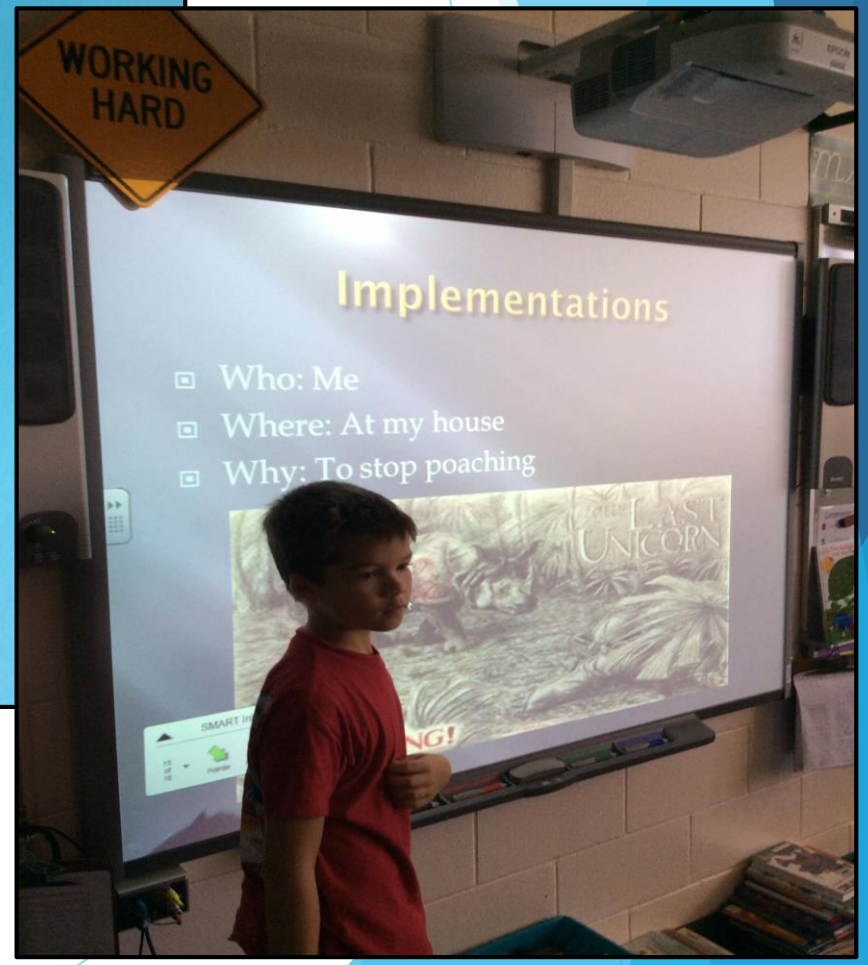




Implementation







Implementation of Projects

Global Warming

Planting trees to absorb Carbon Dioxide

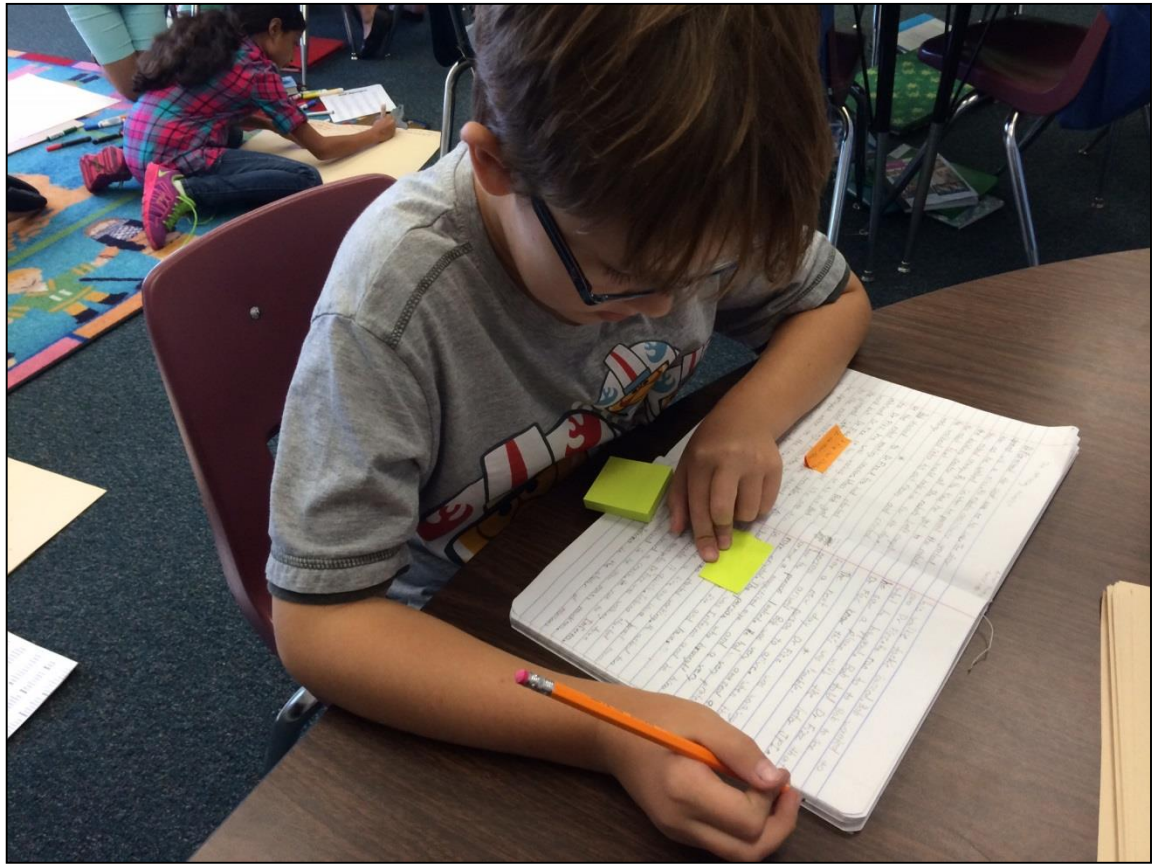
Future Implications

- What could be possible problems in the future?
- What could some of the difficulties be?
- What are the points of caution?
- What are the weaknesses?
- What are the risks?

Action Research Rubric

Score Point→	0	1	2	3	4
Real World Problem Solver	-Not Evident	-Missing 2-3 elements	-Missing one element	-Includes all elements, but some are not clearly communicated	**-Clearly identifies problem, reason for investigating problem, and goal of research** **-Develops plan for implementing solutions to problem**
Effective Researcher	-Not Evident	-Missing two elements	-Missing one element	-Includes all elements, but some lack detail	**-Uses variety of appropriate resources for research** **-Takes and keeps detailed notes, observations, or data records** **-Keeps accurate record of references**
Information Manager and Organizer	-Not evident	-Lists possible solutions to problem	-Uses research to develop and describe one solution with detail	-Uses information from research to develop and describe 2 solutions with detail in organized paragraphs	**-Uses research to develop and describe 3 solutions with detail in organized paragraphs** **-Paragraphs begin with topic (main idea) sentence and include sufficient elaboration to describe the solution**
Effective Written Communicator	-Product is illegible or does not make sense	-Product is legible with many errors.	-Product is legible with some errors.	-Products are legible with mostly correct punctuation, capitalization, and spelling.	**-Products are well organized, legible, and contain correct punctuation, spelling, and capitalization.**
Effective Oral Communicator	-Lack of eye contact, unclear speaking and inappropriate volume	-Lack of eye contact or unclear speaking, inappropriate volume, or inflection	-Very little eye contact with clear speaking, volume and inflection	-Some eye contact, clear speaking with appropriate volume and voice inflection	**-Good eye contact with audience, clear speaking with appropriate volume and inflection**
Critical and Creative Thinker	-Final project is related to the issue being researched	-Final product integrates technology -Final product includes some steps of the research process	-Final product integrates technology -Final product includes most steps of the research process	-Final product integrates technology and visually assists the presentation -Final product includes all steps of the research process -Final product includes a reflection that evaluates the research process	**-Final product integrates technology and is visually pleasing to the intended audience** **-Final product includes all steps of the research process** **-Final product includes a reflection that evaluates the research process, the plan for solution implementation, and the prediction of future challenges**
Cooperative Learners	**-Some group members did no work**	**-Some group members did minimal work**	**-All group members did acceptable amounts of work**	**-Group members did equal amounts of work Group members planned and determined individual responsibilities without teacher intervention**	-Group members did equal amounts of work related to the research project -Group members individual strengths were maximized -Group members planned and determined individual responsibilities without teacher intervention

Self-Critiquing & Reflection

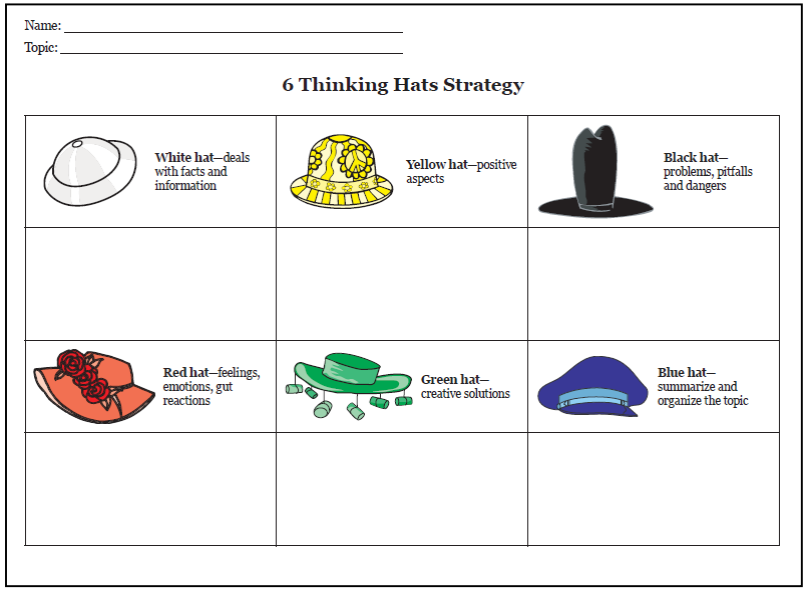


Final Action Research PowerPoint Checklist

Include the following information in your presentation:

- _____ Problem/Issue you are studying
- _____Goal statement identifying what you are attempting to prove or resolve.
- _____Research/Data Collection Plan (Explanation of how you found information to come up with solutions- include the resources used)
- _____Proposed Solutions
- _____Explanation of the Best Solution
- _____Plan of How to Implement the Best Solution
- _____Predictions of impact or future challenges of solution implementation
- _____Reflection on the entire research process

Additional Resources for Gifted Learners

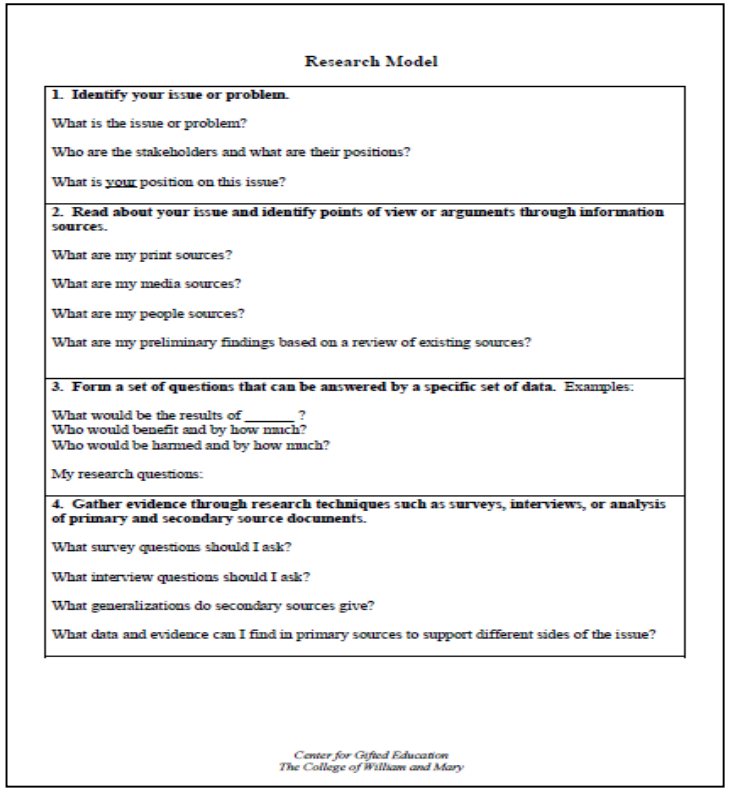


Name: _____

Topic: _____

6 Thinking Hats Strategy

White hat—deals with facts and information	**Yellow hat**—positive aspects	**Black hat**—problems, pitfalls and dangers
Red hat—feelings, emotions, gut reactions	**Green hat**—creative solutions	**Blue hat**—summarize and organize the topic



Research Model

1. Identify your issue or problem.

What is the issue or problem?

Who are the stakeholders and what are their positions?

What is your position on this issue?

2. Read about your issue and identify points of view or arguments through information sources.

What are my print sources?

What are my media sources?

What are my people sources?

What are my preliminary findings based on a review of existing sources?

3. Form a set of questions that can be answered by a specific set of data. Examples:

What would be the results of _____ ?
Who would benefit and by how much?
Who would be harmed and by how much?

My research questions:

4. Gather evidence through research techniques such as surveys, interviews, or analysis of primary and secondary source documents.

What survey questions should I ask?

What interview questions should I ask?

What generalizations do secondary sources give?

What data and evidence can I find in primary sources to support different sides of the issue?

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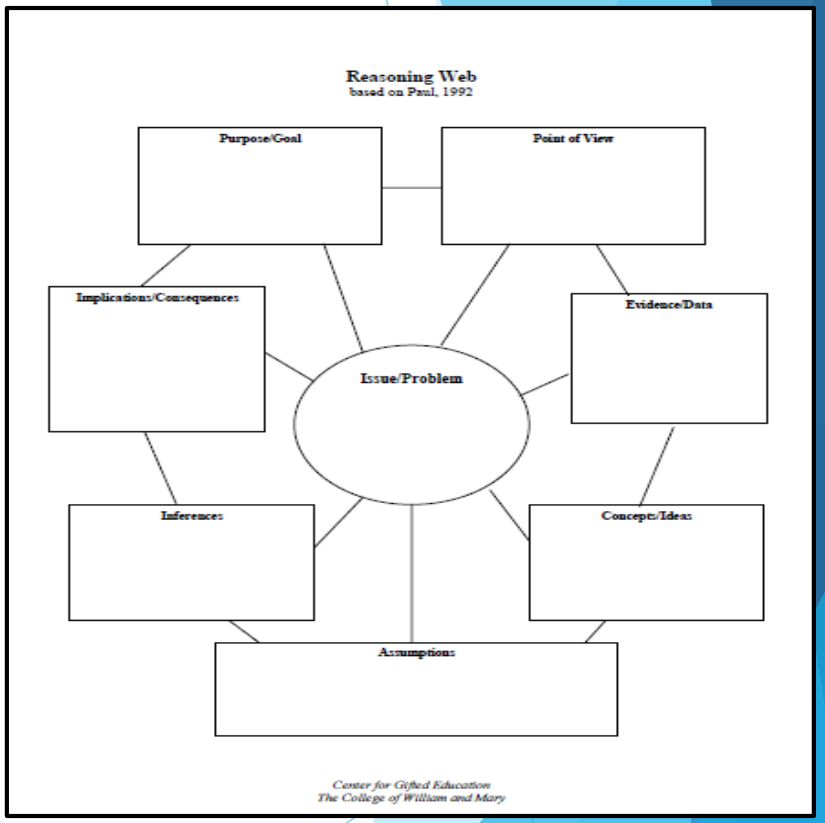

Reasoning Web
based on Paul, 1992

Purpose/Goal

Point of View

Implications/Consequences

Evidence/Data

Issue/Problem

Inferences

Concepts/Ideas

Assumptions

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First Graders' Perspective of Action Research

Mentors' Perspective of Action Research

References/Resources for further study

Center for Collaborative Action Research
http://cadres.pepperdine.edu/ccar/resources.html

Cochran-Smith, M., & Lytle, S. L. (2009). *Inquiry as a stance: Practitioner research for the next generation*. New York: Teachers College Press.

Dana, N. F., & Yendol-Hoppey, D. (2009). *The reflective educator's guide to classroom research. Learning to teach and teaching to learn through practitioner inquiry.* Thousand Oaks, California: Corwin Press.

De Bono, E. (1999). *Six thinking hats Edward De Bono*. Boston: Little, Brown

Lastinger Institute - http://lastingercenter.com/

VanTassel-Baska, J. (2003). Content-based curriculum for high-ability learners: An introduction. In J. VanTassel-Baska & C. A. Little (Eds.), Content-based curriculum for high-ability learners (pp. 1-23). Waco, TX: Prufrock Press.

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