Creative and Critical Thinking: A Warm Up Activity

<table>
<thead>
<tr>
<th>Brainstorm about THINKING. Make a list.</th>
<th>Prioritize by selecting three things that your group thinks is most important to WORKING EFFECTIVELY in the 21st century. Create a priority ladder or stairway as a visual.</th>
</tr>
</thead>
</table>
| Write a simile about the THINKING using two ideas to show the connections.  
_________________ is like ___________  
Because  
1.  
2. | Can you illustrate your simile? |

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**Fortune 500 Companies Desirable Skills** (as per survey of National Association of Colleges and Employers)

**The Top 10:**
- Verbal and written communication skills
- Honesty and integrity
- Interpersonal skills
- Teamwork skills
- Strong work ethic
- Motivation and initiative
- Flexibility and adaptability
- Computer skills
- Analytical skills
- Organizational skills

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**Partnership for 21st Century Skills**

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Curriculum that addresses 21st Century Skills

- Teach students thinking skills embedded within core subjects and interdisciplinary themes of
  - Global awareness
  - Financial, economic, business, and entrepreneurial literacy
  - Civic literacy
  - Health literacy
  - Environmental literacy

Curriculum that addresses 21st Century Skills

- Require students to apply thinking skills across content domains through performance based activities
- Allow student to utilize technology and resources beyond the classroom wall
- Teach factual, procedural, and conceptual levels of thinking and learning.
21st Century Skills

- Need for ‘knowledge workers’
- According to the Partnership for 21st Century Skills there are 5 essential components:
  - Flexibility and adaptability
  - Initiative and self-direction
  - Social and cross-cultural skills
  - Productivity and accountability
  - Leadership and responsibility

Curriculum & Instruction for 21st Century

- Look at content through broad-based themes, issues, problems
- Integrate disciplines into an area of study
- Allow for opportunities to research; in-depth learning of a self-selected topic within an area of study
- Develop productive, complex, abstract or higher order thinking skills (HOTS)
- Encourage product development that challenges existing ideas and produces new, unique products
Curriculum & Instruction for 21st Century

- Encourage the development of products that challenge existing ideas and produce new ideas
- Encourage the development of products that use new techniques, materials, forms
- Encourage self-understanding: recognizing/using one’s abilities; becoming self-directed; appreciating likenesses and differences to others

Academic Achievement

Digital-Age Literacy
- Basic, Scientific, Economic, and Technological Literacies
- Visual and Information Literacies
- Multicultural Literacy and Global Awareness

Inventive Thinking
- Adaptability, Managing Complexity, and Self-Direction
- Curiosity, Creativity, and Risk Taking
- Higher-Order Thinking and Sound Reasoning

Effective Communication
- Teaming, Collaboration, and Interpersonal Skills
- Personal, Social, and Civic Responsibility
- Interactive Communication

High Productivity
- Prioritizing, Planning, and Managing for Results
- Effective Use of Real-World Tools
- Ability to Produce Relevant, High-Quality Products
What is creative thinking?
Skills in creative thinking involve:

- Generation of ideas
- Divergent thinking
- Open-endedness
- Elaboration
- Ambiguity
- Imagination
- Innovation
- Abstraction
- Metaphorical

Strategies for substantive analytical thinking

- **Debate** - controversial issues in the discipline
  - Debate the actions of a character in story
- **Discuss** – alternative or risky solutions
  - Alternative observations made during an experience or experiment
- **Question** – methods or ulterior motives
  - Why did a famous person from history do what they did? (role play or write a letter from the perspective)
- **Mediate** – pros and cons of political decisions
  - Mediate an argument between two characters from a story; role play
Motivate students to think

- Creatively
  - Games
  - Stories
  - Role play
  - S.C.A.M.P.E.R.
  - F.F.O.E.
  - Visualization

- Critically
  - Research
  - Analyze
  - Debate
  - P.M.I.
  - deBono’s Hats
  - Synectics/Analogies

Creative Thinking
Using SCAMPER, FFOE, and Twizzlers!

- Substitute – replace with something else
  Replace the name.

- Combine – two or more objects
  Combine the Twizzlers with another piece of candy to improve the candy.
**Modify/Minify/Magnify** - change size, color, shape

What would you change in size, or shape? How would you change it to improve the candy in some way?

**Put to other use** - use in another way

Now that you have made these changes, how else can you use this candy?

---

**F.F.O.E.**

**Fluency:**
Generating lots of ideas

Make a list of all the ways your improved “Twizzler” might be used

**Flexibility:**
Adapting ideas by classifying, organizing, considering alternatives

Circle your favorite idea from the Fluency list.
Put a box around your least favorite idea
**F.F.O.E.**

**Originality:**
Creating new ideas and recombining existing ones
Using your favorite and least favorite ideas (from Flexibility), come up with the most unusual way to use your improved “Twizzler.”

**Elaboration:** Adding details
Draw an illustration of what your final “product” looks like and how it will be used.

---

**Thinking Tools:**
**Process Frameworks**

- **F.F.O.E. / P.M.I.**
- **S.C.A.M.P.E.R.**
- **De Bono’s Hats**
### Plus/Minus/Interesting (PMI)

<table>
<thead>
<tr>
<th>Plus</th>
<th>Minus</th>
<th>Interesting</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSITIVE</td>
<td>NEGATIVE</td>
<td>WOW!</td>
</tr>
</tbody>
</table>

Compare Points of View, Evaluate and Reflect!

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### Break

- Take a break
- Get a drink of water or coffee or tea
- Stretch your legs and your mind
- Notes on P.M.I.
Let’s Get CREATIVE!!!!

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SCAMPER

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**SCAMPER**

- Substitute or Replace
- Combine two or more objects
- Adapt or change to fit the situation
- Modify/Minify/Magnify - change an attribute
- Put to other use - a new use for something
- Eliminate - remove or omit one or more parts
- Reverse/Rearrange - put it in a different order

*Use one or a combination of the strategies.*

*YOU DO NOT NEED TO USE THEM ALL AT ONCE!*

---

**VISUALIZATIONS**

**MENTAL IMAGERY**

Attention to DETAILS

- Pictures and Visuals
- Feelings and Emotions
- Thoughts and Understandings

---
BIG IDEA

Learning to identify and use appropriate thinking tools enables a person to become a better thinker and problem solver.

P.M.I.

- Take a minute to make some notes
F.F.O.E.
Fluency, Flexibility, Originality, Elaboration

- Fluency - generate MANY IDEAS
- Flexibility - CHANGE information and ideas for a new purpose
- Originality - generate UNUSUAL, CLEVER or UNIQUE ideas or solutions
- Elaboration - Develop or Expand on an idea

- The ability to generate (make) a lot of ideas on a subject.
- Many ideas flowing from your imagination.
- To make a very long list!
Time to think = Fluency

- Ways to get from one place to another
- Things that crash
- Reasons not to smoke
- Names for an ice-cream shop
- Things that are soft but strong
- Titles for a tv show about your school
- Ways to save paper
- Things that close
- Uses for a pile of cardboard
- Titles for a book about magnets
- Things that sparkle
- Works that make you think of fun
- Ways to be kind to someone
- Invisible things
- Uses for a single wheel
- Excuses for not doing homework
- Words that create a mood of excitement
- Things that melt

F.F.O.E.  Flexibility

- Questions to encourage flexible thinking include:
  - Can you think of a different way to . . . ?
  - What else might be happening?
  - How would _____ look at this?
  - What are some different reasons for . . . ?
  - What if . . . ?
  - What relationship can you think of between _____ and ____?
  - In what ways are two unlike objects alike?
F.F.O.E. Flexibility

How might these people view the word ‘charge’ differently?
- teenager
- rock star
- electrician
- ticket agent
- criminal
- knight

Write six sentences using the word ‘spring’ in different ways.

Discuss skateboarding from the perspective of the following people:
- teenager
- headmaster/headmistress
- parent
- skateboard manufacturer
- doctor

F.F.O.E. - Originality

- Questions to encourage original thinking include:
  - What is a new, original way to . . . ?
  - Can you invent a new . . . ?
  - How can you change ____ to make ____?
  - How can you combine ____ and ____ to make something new?
  - Devise a new way to ______?
F.F.O.E. - Originality

- Create your own recipe for peace.
- Design a flow chart that shows the way to lasting friendship.
- Imagine you are interviewing a football. Think of original questions to ask & make up answers.
- Design a fashionable outfit for the year 2175.
- Write a limerick about a fairy-tale or nurserky-rhyme character.
- Create a remedy for greed.
- Write your initials on a piece of paper, and then use them to create a picture.
- Design a modern day ‘coach’ for Cinderella.
- Create a conversation between two lockers.

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Elaboration

To embellish on an idea...
Expand an idea.....
Add on to an idea....

EXPLAIN!
ADD DETAILS, DETAILS, DETAILS to your idea, drawing, report, story...etc!

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F.F.O.E. - Elaboration

- Questions to encourage students to elaborate every time he or she asks a question or gives an answer.
  - What else can you tell me about . . .?
  - Can you be more descriptive?
  - What can you add to make it more interesting or complete?
  - What could be added to ___ to improve it?
  - What new ideas can you add?
  - Can you add more supportive information?

F.F.O.E. - Elaboration

- Give your opinion on a particular topic. Add information to support your opinion.
- Give examples to explain: “Every cloud has a silver lining.”
- What things could be added to improve/adapt a school bus?
- Write another verse for a poem or nursery rhyme.
- Cut a 2-inch square out of a magazine picture, glue it to a page, and exchange it with a partner. Complete the picture with details.
- Add phrases to make short sentences more descriptive.
- Add details to make a basic drawing more interesting.
FFOE:
Fluency, Flexibility, Originality, Elaboration

Fluency - generate MANY IDEAS
Flexibility - CHANGE information and ideas for a new purpose
Originality - generate UNUSUAL, CLEVER or UNIQUE ideas or solutions
Elaboration - Develop or Expand on an idea

META-cognition Break

all the thinking tool by its name
organize its components into parts/steps
ive it some examples/applications
ame the content it will be applied to
implement it
ake a look at the thinking performed
eas for improvement?
bjective achieved?
ext thinking tool...

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Bloom AND Anderson and Krathwohl's Taxonomies of the Cognitive Domain

Changes to Bloom's

1956
Evaluation
Synthesis
Analysis
Application
Comprehension
Knowledge

2001
Create
Evaluate
Analyze
Apply
Understand
Remember

Noun to Verb Form

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21st Century Skills
Thinking Critically and Creatively

When you’re not sure an answer exists,  
Finding it can be hard.  
When you know there are many answers,  
Finding one or two is easy.  

--- Jack Foster

What is critical thinking?  
Skills in critical thinking involve:

- Compare/contrast  
- Point of view  
- Relevance/Irrelevance  
- Cause/effect  
- Analyze arguments  
- Fact/opinion  
- Assumptions  
- Generalizations  
- Sequence and prioritize
P.M.I.

- Take a minute to make some notes

Six Hats®
Began as a Tool for the Corporate World

DuPont, Prudential Life Insurance, IBM, British Airways, Siemens, and 100 international corporations use Six Hats to:

1. Promote focused meetings and communication
2. Improve team work
3. Increase productivity and profits
Six Thinking Hats - deBono

- Early in the 1980s Dr. Edward de Bono invented the **Six Thinking Hats** method as a framework for thinking. It requires students/teachers to extend their way of thinking about a topic by wearing different ‘thinking hats.’

- The six hats represent six modes of thinking and are directions to think rather than labels for thinking. Hats are used proactively rather than reactively.

- Your students will use the Six Thinking Hats to:
  - Discuss topics
  - Solve problems
  - Explore alternatives
  - Reach decisions
  - Research, organise and write reports
  - Brainstorming

Six Thinking Hats - deBono

- Students learn to reflect on their thinking and to recognize that different thinking is required in different learning situations.
<table>
<thead>
<tr>
<th>Hat</th>
<th>Explanation</th>
<th>De Bono says to think of...</th>
<th>Key Questions</th>
</tr>
</thead>
</table>
| White Hat      | • focuses directly on the available information  
                   • facts  
                   • neutral information  
                   • NOT argument or making suggestions                      | Blank paper  
                   Computer printout                          | 1. What information do we have?  
                   2. What information is missing?  
                   3. How do we get the information we need?                  |
| Red Hat        | • emotions  
                   • feeling  
                   • hunches  
                   • intuition  
                   • likes and dislikes                                  | Fire and warmth                               | 1. What do you like about the idea?  
                   2. How do you feel about this?  
                   3. What don't you like about this?                        |
| Black Hat Purple | • most used of all the hats  
                   • concerned with truth and reality  
                   • hat of critical thinking  
                   • prevents us from making mistakes                      | Stern judge                                   | 1. Will it work?  
                   2. Does it fit?  
                   3. What are the dangers and the problems?                |


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<table>
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<th>Key Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Hat</td>
<td>• overview</td>
<td>Blue Sky (above everything)</td>
<td>1. What sort of thinking is needed?</td>
</tr>
<tr>
<td></td>
<td>• the process control above the thinking</td>
<td>Conductor of an orchestra</td>
<td>2. Where are we now?</td>
</tr>
<tr>
<td></td>
<td>• looking down on the thinking</td>
<td></td>
<td>3. What is the next step?</td>
</tr>
<tr>
<td></td>
<td>• thinking <strong>about</strong> thinking!</td>
<td></td>
<td>4. Where have we been?</td>
</tr>
<tr>
<td></td>
<td>• Mega-cognition</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Videos from deBono’s Society

DeBono’s Thinking HATS

Multiple Perspectives and Varied Points of View ~
Each Hat Represents a Way of Thinking

Emotions
Positive
Problems

New Ideas
“Organizer”
Executive thinking

http://www.youtube.com/watch?v=rXn1JF5hOqY&NR=1&feature=fvwp

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A hare was making fun of a tortoise one day for being so slow. “Do you ever get anywhere?” the hare asked with a mocking laugh. “Yes,” replied the tortoise, “and I get there sooner than you think. Run a race against me and I’ll prove it.”

The hare was very amused at the thought of running a race with the tortoise, and just for fun he decided to do it. So the fox, who agreed to act as judge marked the distance for the race on a path through the woods, and started the runners off. The hare was soon far out of sight. To let the tortoise know how silly it was for him to challenge a speedy hare, the hare decided to lie down beside the road to take a nap until the tortoise could catch up.

The tortoise meanwhile kept going slowly but steadily. In time, the tortoise passed the place where the hare was sleeping. The hare slept on very peacefully. When at last he did wake up, the tortoise was already very near the finish line. The hare now ran his swiftest, but he could not overtake the tortoise in time.
What are the strengths of being the tortoise? The hare?
What are the advantages of slow and steady?

What are the dangers involved in a race?
Explain the weaknesses of the tortoise AND the hare.
What are the facts of the race?
Who is the author?
What is the point of the story?
Who? What? When?
Where?

What new ways of travel are possible for the tortoise?
What would be new approaches to suggest for the hare?
Other Examples

**Content**
- Planning template for a variety of content area topics
- Literature discussion group
- Respond to novels
- U.S. History
- Point of view of professionals

**Strategies**
- Use one or two hats at a time.
- Jigsaw small groups.
- Cubing to look at one topic from multiple angles.
- Tier the questions within use of the hats.
- Ask students to select a hat to solve a problem
Designing Thinking Activities

- Problem Situation
- Design Challenge
- Conditions
- Materials

Scope and Sequence of Creative and Critical Thinking

- PMI
- THINKING HATS
- SCAMPER
- FFOE
- Visualization
- Synectics or Analogies

http://www.apsva.us/15401081151138413/blank/browse.asp?a=383&BMDRN=2000&BCOR=0&c=54420

APS Gifted Services Web Link to Creative and Critical Thinking Scope and Sequence for
Plus/Minus/Interesting (PMI)

Plus
POSITIVE

Minus
NEGATIVE

Interesting
WOW!

Compare Points of View, Evaluate and Reflect!
Bill of Rights - deBono Lesson Sample

- **WHITE HAT**
  - Write as many who, what, where, when, why, and how questions as you can about the Bill of Rights. Then, answer the questions.
- **RED HAT**
  - How do you feel about the Bill of Rights? Why?
- **BLACK/PURPLE HAT**
  - Make a list of what you do NOT like about the Bill of Rights. What are some of the problems with these rights?
- **YELLOW HAT**
  - Make a list of what you like about the Bill of Rights. What are some things that work really well? Explain.
- **GREEN HAT**
  - What ideas do you have to make the Bill of Rights even better? What new amendments would you like to add or how would you change some of the existing amendments?

Sample Lesson using SCAMPER, PMI OR FFOE

Design a New Monument for DC

- **PROBLEM SITUATION:** The D.C. Monuments and Memorials Committee has decided that there is room for one more memorial or monument.
- **DESIGN CHALLENGE:** Make a new monument or memorial for the mall in Washington, D.C. to honor a person or event in American history.
- **CONDITIONS:**
  - Must be three-dimensional
  - May not contain any words
  - May not contain a visual picture of what the famous person looked like (no portraits or statues)
**Sample Lesson using SCAMPER, PMI OR FFOE**

**Design a Home for Nomads**

- **Problem:** You are a nomad. You live in a place where your main source of food is an animal that moves around a lot so you have to keep building your shelter, taking it down, moving it to follow the animal, and then building it again.
  - **Challenge:** Build a shelter that can be taken down completely and rebuilt in one minute.
  - **Materials:** 10 popsicle sticks, 5 pipe cleaners, 1 square foot of felt (approximately) Scissors

- **Conditions:**
  - Must stand on its own
  - Must be big enough to fit the model people
  - Must have an entrance---some way for the people to get in
  - Must have a roof to protect from rain
  - Must go from completely built to completely broken down (no attached parts) to rebuilt *exactly the same way* in one minute

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**Sample Lesson using SCAMPER, PMI OR FFOE**

**Design a Home for Nomads - Debrief**

- **DEBRIEFING with students**
  - Show Teepee photos: Discuss adaptation, Native American ingenuity, etc.
  - Nomadic Native American tribe: Plains Indians (Sioux)
  - Explanation of Materials: What would each of the materials we used represent?
    - 10 popsicle sticks = logs
    - 5 pipe cleaners = sinew (band of tough white fibrous connective tissue that attaches a muscle to a bone or other part)
    - felt = animal skin
    - Scissors = knife

- **Explanation of time factor:** Why would it be important to set up the shelter quickly?
- **weather might be bad, to have more time to find food, etc.**
Sample Lesson for Science - Water Cycle - Analogies

Procedure:
- Show a Water Cycle diagram. Students share background knowledge. Review vocabulary words for part of the cycle: precipitation, evaporation, water vapor, ocean, sun, cloud.
- “Today, we’re going to be thinking about the Water Cycle by using analogies. Analogies are sentences that compare two things. What is special about analogies is that the two things that are being compared are usually very different. It’s your job to figure out how those two things can also be similar."
- Practice some analogies (not about the water cycle) together. Ask students to think about how each pair of objects is similar and different.
- Optional: fill in t-charts as students share ideas. 1) How is an alligator like a delivery truck? 2) How is a sneaker like a rocking chair? 3) How is a flower like a dog?
- “Before we can start our water cycle analogies, we need to come up with some ideas about each part of the water cycle. I’m going to ask each of you to become an expert about one piece of the water cycle and share what you learn with the rest of your class.”
- Divide class into 6 groups. Each group gets:
  - Short blurb to read about their one part of the water cycle
  - Poster-paper to write list on

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Sample Lesson for PMI Science - Water Cycle - grade 3 - Analogies cont’d

Post directions: Read about your part of the water cycle. Then, with your group, brainstorm as many words as you can that describe your part of the water cycle. Make a list in marker on the paper. Make sure others will be able to see it from far away. Give students about 10 minutes of work time.

- Ask each group to quickly share their list of “reminder words” for each part of the water cycle. Hang their group posters around the room. Students can reference them for the next part of the lesson if they need more ideas.
- Pass out the analogies handouts. Students will work on 6 analogies – one for each of the group words. Students will randomly select one of the “word box” words, which will be displayed on the Smartboard, to go with each water cycle vocabulary word. Then, they will need to tell similarities and differences for each pair of words. Word Box words:
  - 1 - elevator; 2 - ice cream cone; 3 - puppy; 4 - suitcase; 5 - soda can; 6 - telephone; 7 - jello; 8 - television
- Discuss – “How does thinking with analogies help us to learn about the water cycle?”
- Materials: water cycle diagram, water cycle reading blurbs “Word Box” words – on board, or transparency poster papers, prepared markers, pencils, tape analogy handouts

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Sample SCAMPER lesson Science

- **Procedure:**
  - Review the 6 types of simple machines.
  - Display a picture of a person loading heavy boxes into a moving truck (without a ramp). Ask students to think about how they could use a simple machine to help the person load the heavy boxes easily. Students should do a quick drawing on their handouts of this idea.
  - Introduce the SCAMPER strategy. Explain that students will use the strategy to make their initial idea even better.
  - Guide students through the rest of the handout. Students are asked to use some of the SCAMPER thinking strategies (SCMPE) during this lesson. Read the prompt together and allow students time to answer each question.
  - At the end, have students draw a new and improved version of their initial idea, using some or all of the SCAMPER changes that they thought about. Discuss how their initial ideas compare with their final ideas.
- **Materials:**
  - Picture of person loading heavy boxes into moving truck without a ramp
  - Student handouts, pencils

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Sample deBono’s Hats - Social Studies - Continents

- **Procedure:**
  - Review the 7 continents.
  - Present a What If Question: “What if our world only had one large continent, instead of seven separate continents?”
  - Divide students into four groups. Each group will have a different color from DeBono’s Thinking Hats: yellow, purple, red, or green.
  - Group members work together to answer the prompt on their handout. A “Did you think about?” checklist is provided on the handout to encourage students to think beyond their initial ideas and to think about different related topics.
  - Regroup as a whole-class for discussion. Each hat group should share out their thoughts in response to the same overarching question: “What if our world only had one large continent, instead of seven separate continents?”
Sample P.M.I. using Jigsaw - Laws

- As students enter the classroom, give them either a blue or red sticker. Do not explain what the stickers mean.
- Once students are seated, explain that “Today is sticker day! Anyone who is wearing a red sticker gets a candy at the start of class. Anyone who is wearing a blue sticker has to do extra homework for the teacher tonight.”
- Get student responses from the red vs. blue “rewards.”
- **Discuss: Does this seem fair? How would you like to respond to this rule? What should be changed? How would you change it?**
- “You’ve been learning about laws and government in the United States. Today, we’re going to learn about some laws from the past that may have good and bad aspects. Just like “sticker day” is unfair, some laws are unfair, too. We’re going to think about how people in history have dealt with different types of laws that were good or bad.”

Sample P.M.I. using Jigsaw - Laws continued

- First, PMI procedure:
  - Divide students into 4 groups. Students will work with their group to read a short summary of one law and/or person from history. Students will answer three questions to fill in their PMI charts about the summary.
  - NOTE: Two versions of the reading handouts are provided. The first version is a harder reading level. The second version is a simplified reading level.
- Next, Jigsaw procedure:
  - Regroup students into groups of 4, with 1 representative for each article. Each student should share out with the group.
  - On the back of their PMI charts, each person in the jigsaw group will need to write down one important thing about each law/person they heard during the sharing.
  - Closure discussion: All of these laws were from the past. Do you think we’ll ever have laws in our lifetime that seem unfair and need to be broken or changed? What kinds of laws do you think would seem unfair enough for you to want to work to change them?
- Materials: 4 jigsaw handouts (1-2 copies per group; 4 groups)
  - PMI 2-sided handouts, pencils
Sample P.M.I. - Nomadic vs Agrarian - Social Studies

- Review: Paleolithic = Old Stone Age; Neolithic = New Stone Age; How were the lifestyles different?
- Students work in their groups to complete the PMI chart for the nomadic lifestyle, first. Share out key ideas. Students work in their groups to complete the PMI chart for the agrarian lifestyle, second. Share out key ideas.
- “Now that we have thought about the good and bad things about each type of lifestyle, you’re going to need to make a choice. Imagine that you are beginning a new civilization. As the leader of the civilization, you can choose to have a nomadic or an agrarian lifestyle. Use your PMI charts to make a choice about which would be best for your new civilization.”
- Hang two signs on opposite sides of the room; “Nomadic” and “Agrarian.” Ask students to go stand next to the sign that they feel would be the best choice for their civilization. Students from each group should share some key reasons about why they made their choice.
- Students on each side of the room will work together as a team (or, split into 2 teams on each side, as needed) to do a quick design of their new civilization. Students will be given chart paper with an outline of what they need to decide as a group:
  - Name of their civilization
  - What kind of environment they’d want their civilization to be in
  - Resources that they would want nearby
  - A description of the types of jobs people would have in that civilization (remembering nomadic vs. agrarian)
  - A description of how they would get their food and what kind of food they would eat.

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Sample P.M.I. - Nomadic vs Agrarian - Social Studies continued

- Closure discussion: “We’ve seen today that there are good and bad things about both nomadic and agrarian lifestyles. Even in our world today, there are groups of people who live both kinds of life. Which type of lifestyle influenced our lifestyle today in the United States?” (agrarian) “Can you imagine how our lives in the US would be different if we had been influenced by a nomadic lifestyle?” Brainstorm differences.
- Materials:
  - Student PMI handouts (2-sided), pencils
  - Signs for “nomadic” and “agrarian”, tape
  - Pré-made poster papers for small groups with thinking prompts on them
  - Time frame: one 60 minute session

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