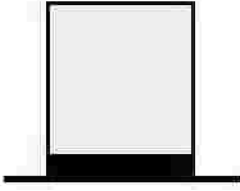
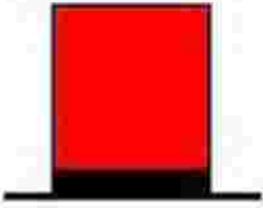


deBono's Hat to review the Bill of Rights



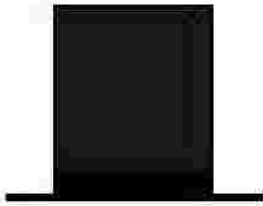
WHITE HAT

Write as many who, what, where, when, why, and how questions as you can about the Bill of Rights. Then, answer the questions.



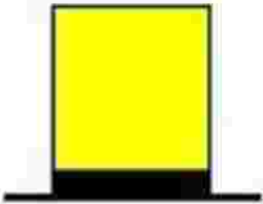
RED HAT

How do you feel about the Bill of Rights? Why?



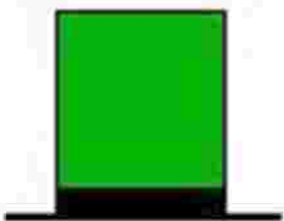
BLACK/PURPLE HAT

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?  
Analogies to teach Water Cycle - Science

## LESSON OVERVIEW:

### 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
- 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 so 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

Time frame: one 60 minute session

## **Precipitation**

Clouds become full of water vapor, water droplets, and pieces of dust and smoke. When clouds become too full, the water droplets fall down to the ground. Falling water is called precipitation.

There are different types of precipitation: rain, hail, sleet, and snow. Rain is the most common type of precipitation. When rain freezes on its way down to the ground, it becomes sleet. If the water droplets freeze way up in high clouds before they fall to the earth, they are called hail. Sometimes, water vapor changes to ice without even become a liquid first. Then, snow is created. All of these types of precipitation are a form of water.

When precipitation hits the ground, it can either soak into the ground or travel down to a collecting place for water. Water can collect in puddles, ponds, rivers, lakes, or oceans. People use this water as a natural resource. Plants and animals also depend on precipitation for water.

## **Evaporation**

Evaporation happens when liquid water from the Earth's surface changes into a gas called water vapor. The heat from the Sun causes this change to happen. Water vapor travels into the air. Water vapor in the air is difficult to see. Sometimes, we see water vapor as steam or fog.

Most of the evaporation that happens on the Earth happens above the oceans, since oceans cover most of the Earth. Plants also let off water, kind of like how humans sweat. Lots of water gets evaporated everyday. Eventually, water vapor will turn back into water and fall back to the Earth as precipitation. Therefore, we do not lose the water forever.

## **Water Vapor**

There is lots of water on the Earth's surface. We can find water in puddles, lakes, rivers, ponds, and oceans. When the water on the Earth gets heated by the Sun, it changes from a liquid into a gas. We call this gas water vapor. Water vapor leaves the surface of the Earth and rises into the air. Sometimes, we see water vapor in the form of steam or fog. Usually, we cannot see water vapor in the air because it is a gas.

When water vapor gets high into the air, it starts to cool down. When it gets cold enough, the gas changes back to liquid water. These tiny droplets of water join together with pieces of dust and smoke in the air to form clouds.

Analogies to teach Water Cycle - Science

## **Oceans**

Most of our Earth is covered by oceans. On the entire Earth, about 70 percent is oceans and 30 percent is land. There are other types of bodies of water on the Earth, like lakes, ponds, and rivers, but oceans hold most of the water on the Earth.

Lots of water evaporates from the oceans everyday. When the Sun heats the liquid water in the oceans, it turns the water into a gas called water vapor. The water evaporates and rises into the air. After the water vapor travels through the water cycle, it turns back into liquid water and falls to the Earth as precipitation. Therefore, the oceans do not dry up!

## **Clouds**

Clouds are actually mixtures of water vapor (a gas), water droplets (a liquid), and pieces of dust and smoke (solids). There is lots of water vapor in the air since evaporation happens all the time. When water vapor gets high enough into the air, it starts to cool down. The cold temperatures make the water vapor turn back into tiny liquid droplets. These droplets combine with the pieces of dust and smoke to form clouds.

When clouds get too full, the water droplets fall back to the Earth. We call this precipitation. It takes millions of tiny water droplets to make one raindrop!

Thunderclouds are special types of cloud that make hail. Thunderclouds are very tall and have winds called updrafts inside of them that push the water droplets up high into the cloud. The top parts of these clouds are very cold, so the water droplets freeze! When the frozen pieces of ice become too heavy for the clouds, they fall to the ground. We call this hail.

Analogies to teach Water Cycle - Science

## **The Sun**

The Sun is a star in the center of our solar system. It is the largest object in our solar system, too! The Sun provides the Earth with light and heat.

Heat from the Sun causes the water on the Earth to warm up. When liquid water becomes too warm, it changes into a gas called water vapor. Water vapor travels into the air in a process called evaporation. We usually cannot see water vapor, unless we see steam or fog.

The Earth receives heat and light from the Sun even on cloudy days. Therefore, evaporation is happening around us all the time!

### Water Cycle Analogies

Choose a number in each box. Write the mystery word on the line. Tell how the two words are similar and different. Be creative!

Precipitation and _____	
1 2 3 4 5 6 7 8	
SAME	DIFFERENT

Evaporation and _____	
1 2 3 4 5 6 7 8	
SAME	DIFFERENT

Water Vapor and _____ 1 2 3 4 5 6 7 8	
SAME	DIFFERENT

Oceans and _____ 1 2 3 4 5 6 7 8	
SAME	DIFFERENT

The Sun and \_\_\_\_\_

1 2 3 4 5 6 7 8

SAME

DIFFERENT

Clouds and \_\_\_\_\_

1 2 3 4 5 6 7 8

SAME

DIFFERENT

## **SAMPLE LESSON FOR P.M.I. OR SCAMPER OR FFOE**

### **Design Brief: Homes 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

DEBRIEFING:

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 (an inelastic cord or band of 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.



**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 deBono's Hats LESSON - Social Studies - Continents**

## **LESSON OVERVIEW:**

### 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?"

### Materials:

- 4 DeBono's Hats handouts -- copies for each student in each group

Time frame: one 45 minute session





## Red Hat Thinking

Discuss the questions with your group. Write down your answers on the lines. Be ready to share your ideas!

1. What are some feelings that people might have if there was only one large continent on Earth? Tell why.

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2. Do you think everyone would feel the same way?

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## Green Hat Thinking

You get to design the new continent! As a group, make decisions about how you want the continent to be. Write your ideas on the lines.

1. Weather: \_\_\_\_\_

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2. Land: \_\_\_\_\_

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3. Animals: \_\_\_\_\_

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4. Foods: \_\_\_\_\_

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## **SAMPLE – STUDENTS WRITE LESSON BASED ON FILM.**

### **Sample Lesson: De Bono's Hats**

For Content Discipline: Research, Reading/ Language Arts, or Social Studies

Standard or gifted novel connection or other connection:

Looking at different perspectives on an important issue, such as plagiarism before students do research, or any reading assignment can be used.

Procedure: Hook: Question: How do different perspectives help us think about new concepts or what we read?

Students watch a short power point explaining DeBono's hats.

While viewing the power point ask students to encapsulate what each hat is about in one word and write the color hat and word that they come up with on the board. The last slide of the powerpoint asks students two questions:

- Which hat are you most like and why?
- How might using De Bono's hats help your thinking?

After discussing students answers to these questions allow students to choose their hat. Tell students that the next thing they are going to do is watch a short movie and write a question about the movie from the perspective of their chosen hat.

Pass out ½ sheets of paper for students to record their color hat and their question. Before starting the movie, remind students of the purpose of the movie and that they must be watching the movie from the perspective of their hat. From Youtube I show the Three Little Pigs Silly Symphony to students.

This movie is about 8 minutes long. Upon finishing the movie I ask students which characters represent which hat. Then ask them to share their questions with the whole class or in a small group of six different hats (each person representing a different colored hat).

Break time or next day: Tell students that they are going to read an article about plagiarism. Ask students what do they already know about plagiarism? Also ask them if they know what limewire is? We talk about musicians having rights to their musical property –songs, which is the same as authors having rights to their words and what they write. We next read the article on plagiarism as a whole group or in small groups. Some vocabulary might need to be addressed.

Vocabulary: coed, plagiarism, unintentional, sophomore, internalized, unconscious. After reading the article students write another question about the article from a different hat perspective and share in whatever group configuration is desired: whole group, small group with each colored hat represented or the same color hats. After discussion, students are asked two questions again:

- How have the different colored hats helped you think about the article?
- How have the different colored hats helped you understand plagiarism?

Closing: Students are given a 3,2,1 exit card to do in class or for homework.

Exit card is attached.

Follow up: Students should be encouraged to use the hats again and take different hats every time they read another section or chapter in a novel, or non-fiction article.

Materials: Hats or visors are needed to represent the colors: white, red, black or purple, yellow, green and blue; different baseball caps for the different colors; different colored party hats can be used or different colored glass lenses. Different colored index cards can be used for big classes.

On the hats, write some questions that fit the type of deBono's hat.

Also on-line there are a lot of free materials available about each different colored hat with corresponding question prompts.

Time frame: This lesson will take two forty five minute class periods. I have done this in a two period block situation or over two class periods.

**SAMPLE – STUDENTS WRITE LESSON BASED ON FILM. deBono’s Hats**

Name: \_\_\_\_\_

Directions: Using your color hat perspective, write 1 question about the movie, and answer it below. Share with your group.

My color hat is \_\_\_\_\_.

My question is:

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My answer is:

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Name: \_\_\_\_\_

Directions: Using your color hat perspective, write 1 question about the movie, and answer it below. Share with your group.

My color hat is \_\_\_\_\_.

My question is:

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My answer is:

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**SAMPLE – STUDENTS WRITE LESSON BASED ON FILM. deBono’s Hats**

**Exit Card 3,2,1**

Write **three** things you learned today from the discussion: \_\_\_\_\_

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Write **two** questions you have: \_\_\_\_\_

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Write **one** thing you know or can do:

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**Exit Card 3,2,1**

Write **three** things you learned today from the discussion: \_\_\_\_\_

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---

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Write **two** questions you have: \_\_\_\_\_

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Write **one** thing you know or can do:

---

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# **SAMPLE QUESTIONS – DeBono’s Six Hats – FOR LITERATURE CIRCLES**

## **Yellow Hat Thinking:**

In what important ways do the characters in this book represent the country they live in? What are the character traits of these individuals that we should try to imitate? What do you think are the strongest qualities of each of these characters? What do you like best about this book? What important lessons does this book have to teach?



## **White Hat Thinking:**

What time period is this book exploring?  
What facts do you know about this time period?  
What are some of the facts that are presented in this book?  
What background information is important to have to understand fully the facts presented in this book?  
What facts are not presented in this piece, but are important to know about this time period?  
Are there pieces of information presented as fact in the book that are not fact?



## **Black Hat Thinking:**

What are some of the flaws of this book?  
Which of the characters presented in this book do you think had the most character flaws, and why?  
What were some of the negative consequences that came out of the developments of the time period?  
Who was impacted the most negatively by this time period?  
Who is missing from this book who should have been included?  
What misunderstandings might a student who read this book have?



### **Green Hat Thinking:**

What are the innovative ideas that came out of the time period represented in this book?  
Which of these individuals do you think was the most creative?  
How else might this book have ended?  
Can you think of another time period or group of individuals who would make a good sequel or prequel to this book?  
Can you write or design another chapter to the book?



### **Red Hat Thinking:**

Respond to this book. How does this book make you feel?  
What emotions does the author of this piece seem to be feeling?  
What is the tone of the book?  
What do you think the men and women were feeling during the time period depicted in this book?  
What are the emotions that you associate with the novel?  
Do you think that everyone was feeling positively?  
Who might be feeling fear? Contempt? Excitement? Worry?



### **Blue Hat Thinking:**

What do you think the author's primary purpose was in writing this book?  
How did the author get you involved as a reader?  
What devices were used to keep you reading?  
What sort of thinking is the author applying in the writing of this piece?  
How might this author extend this piece to make it more useful to readers?  
What sort of "thinking hats" (blue, red, white, etc.) \_\_\_\_\_ in this piece?  
How might you utilize this book to promote different types thinking in your classroom?