

Using think-sheets to **assess** knowledge of an important... **EVENT**

For example, assessing students understanding about...

- Social studies example: *Raid at Harper's Ferry*
- Science example: *Osmosis*
- Math example: *Estimating*
- Language arts/Literature example: *Editing one's writing*

Rubrics should be used to guide the evaluation of students' understanding of an important event. The rubric below can be adapted for use with any of the think-sheets. Although each think-sheet may be organized somewhat differently, all will reflect somewhere on the graphic the information noted in the rubric below.

Sample rubric	
Depth & Breadth of Understanding	
Statement of importance	
High scores Precise, captures essence of importance	Low scores Imprecise, describes event, but statement does not summarize its importance
Description / characterization of event	
High scores Precise, multiple adjectives used that appropriately characterize the event; description includes key elements of event	Low scores Few adjectives used; some are not appropriately used to describe the event; omitted important elements of event
Contextual understanding of event	
High scores Accurate and complete information about factors <i>leading to</i> and <i>resulting from</i> the event; clear evidence that student understands the impact of event on the world	Low scores Inaccurate and/or incomplete information about factors <i>leading to</i> and <i>resulting from</i> the event; little evidence that student understands the impact of event on the world
Overall understanding	
High scores Accurate information with many connections evident.; clear, in-depth understanding of why event is significant.	Low scores Much of the information is erroneous; few connections to other ideas; superficial, surface level understanding of why event is significant.
Appearance	
High scores Neat handwriting, free of spelling errors	Low scores Sloppy, script is difficult to read; spelling errors

Event concept table

This think-sheet requires students to produce information that demonstrates they can describe the event, are knowledgeable about factors leading to and resulting from the event, and that they understand the significance of the event in terms of its impact on our world.

For example, to assess students' understanding of the Battle of the Bulge, you could provide a blank version of the Event concept table and have them complete the graphic as their test.

<p>EVENT</p> <p>Battle of the Bulge</p> <p>is an important event because...</p> <p>Last German offensive of W.W.II - Germans almost won</p>			
<p>Ways to describe this event</p>			
<p>Desperate actions of Germans -- last great attempt to beat the Allies</p>	<p>Incredible tenacity & bravery of US soldiers faced with a hopeless situation</p>	<p>Terribly harsh winter conditions-- too foggy for US, airplanes to provide protection</p>	
<p>Key things LEADING to the event</p>	<p>Key things that happened DURING the event</p>	<p>Key things RESULTING from the event</p>	<p>Impact on our world today</p>
<p>D-day (6 months earlier)- Allied invasion of Europe</p> <p>US & British forces slowly making progress toward Germany</p> <p>Hitler realizes he must stop Allies, or he loses the war -- throws all his forces at Allies via surprise attack</p>	<p>US ran out of supplies</p> <p>US surrounded by Germans, but refused to give up</p> <p>Am. General saying "nuts" when asked to surrender</p> <p>Patton's army saved the day</p>	<p>Worst US casualties of war</p> <p>Few German men soldiers left to fight) - so children sent as replacements</p> <p>Allows Russians to attack Germany from opposite side</p>	<p>Prevented Hitler from taking over the world</p> <p>Germany is now a democracy & ally with US.</p>
<p><small>© 2001 Masterminds, LLC graphicorganizers.com</small></p>			

Hierarchic web, frame, or boxes

This think-sheet requires students to produce information that demonstrates they can identify the main ideas associated with the event, and specific details of each.

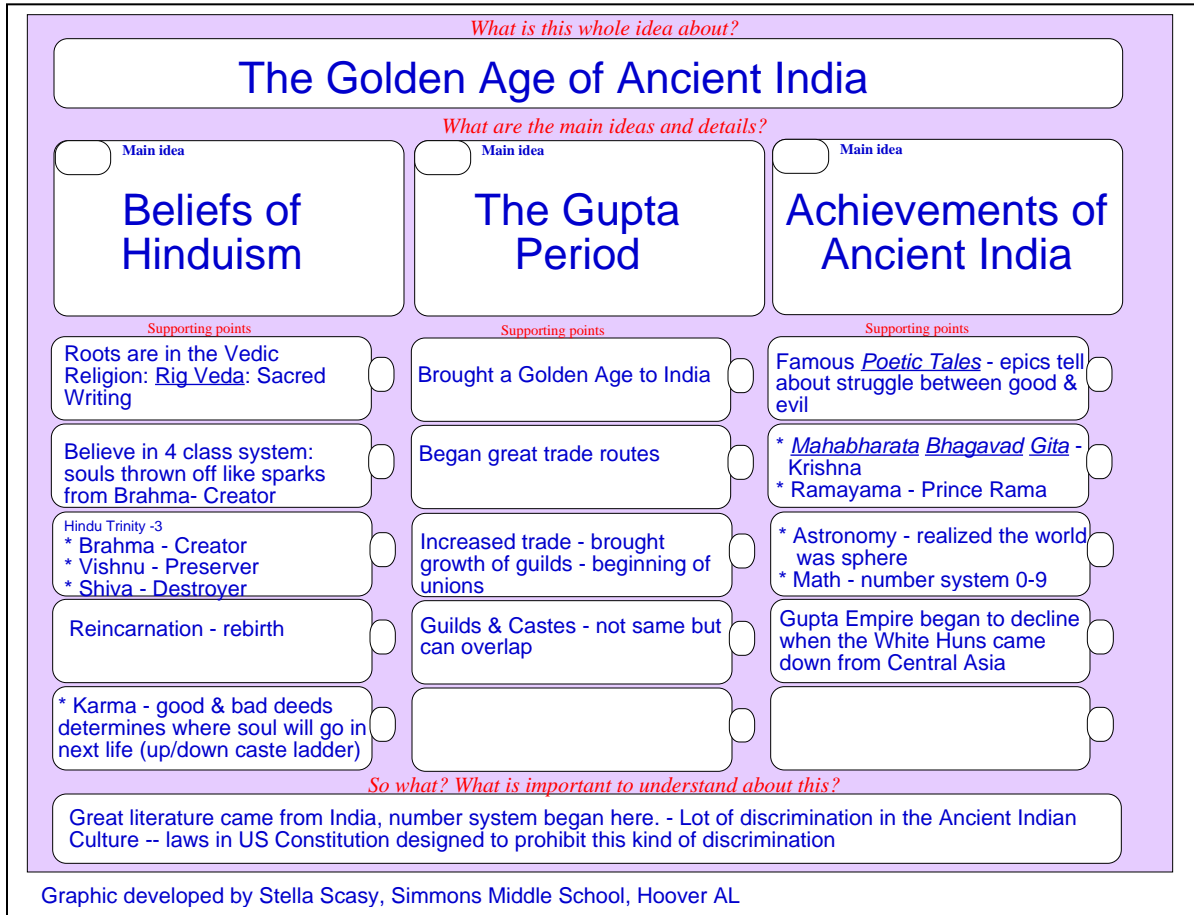
Specific tips...

- Generally, less sophisticated learners will likely demonstrate greater depth of knowledge if you partially structure the assessment by listing at least some of the main ideas that you wish them to address.

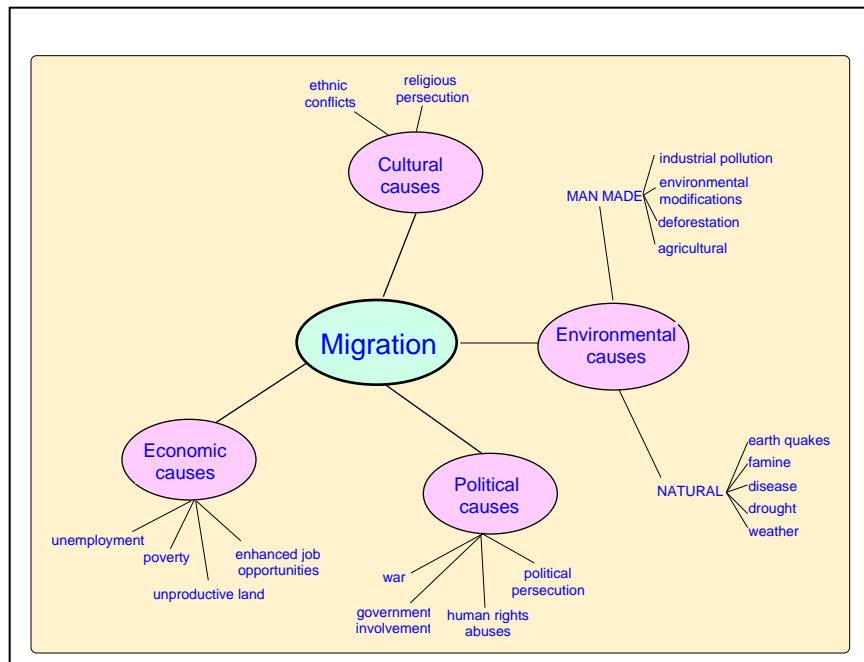
For example, this frame was used to assess students knowledge of Indian history. The teacher provided the main ideas about they were to note important details.

<i>What is this whole idea about?</i>		
The Golden Age of Ancient India		
<i>What are the main ideas and details?</i>		
<small>Main idea</small> Beliefs of Hinduism	<small>Main idea</small> The Gupta Period	<small>Main idea</small> Achievements of Ancient India
<small>Supporting points</small>	<small>Supporting points</small>	<small>Supporting points</small>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<i>So what? What is important to understand about this?</i>		
<input type="text"/>		

This example illustrates a completed frame that was used to assess students' knowledge of India in lieu of a traditional test.

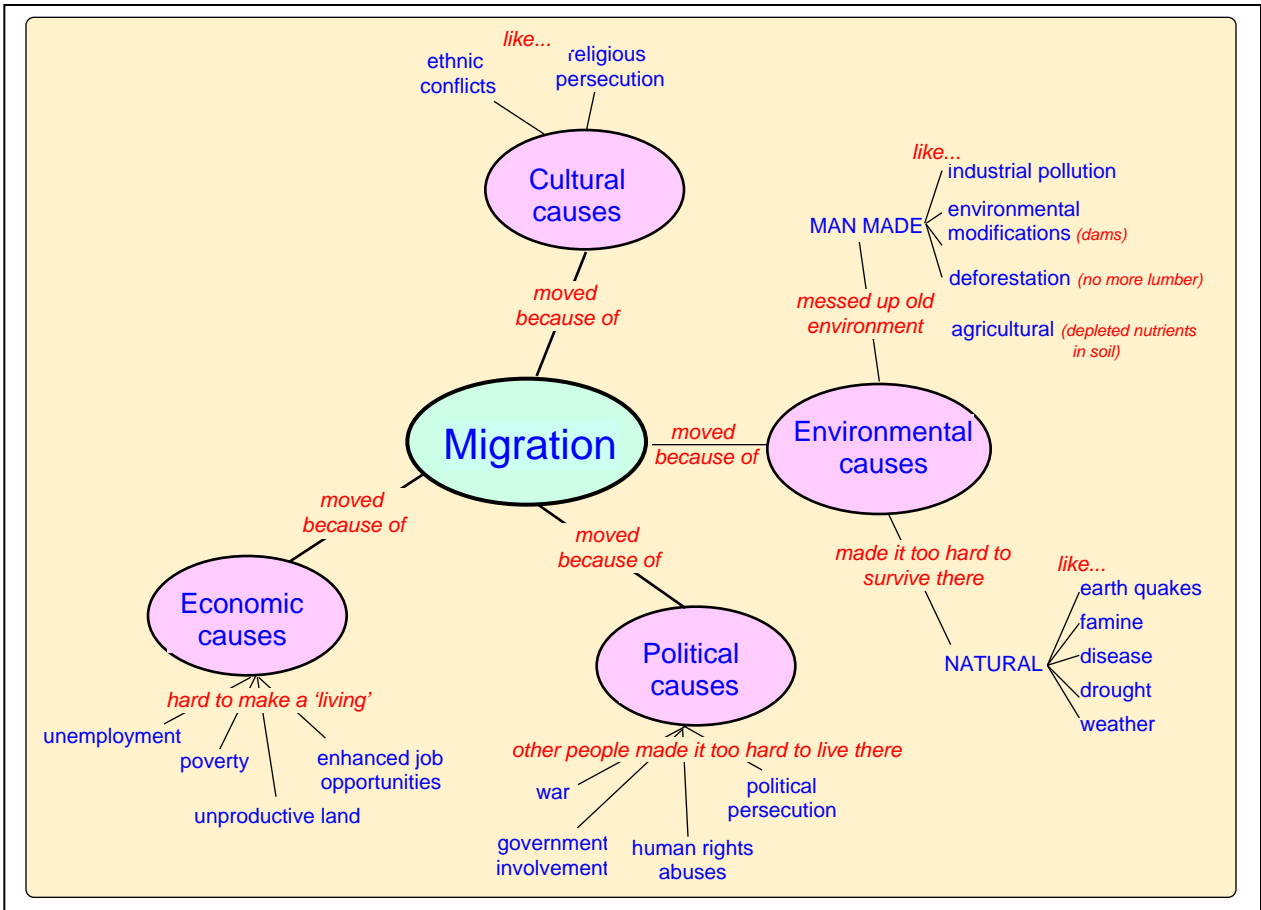


- When using semantic webs to assess knowledge, encourage students to use "linking words or phrases" on the lines that connect ideas. Linking words specify the connection and are usually either verb phrases or subordinating



conjunctions. Examples of linking words include...
Because... Since... Caused... Resulted in... Composed of these parts...

The first example (above) illustrates a web students generated to demonstrate their understanding of migration, and the second figure illustrates the same web after they added the linking words to clarify connections. This example illustrates the same web after students have added linking words or phrases to clarify connections among ideas.



Compare/contrast frames

This think-sheet requires students to compare the characteristics of the significant event with another and draw conclusions about them.

Specific tips...

- Less sophisticated students will likely demonstrate greater depth of knowledge if you partially structure the comparison by listing some or all of the main-ideas-of-comparison.

The first example illustrates a compare/contrast frame that provides minimal structure, and thus, is the most cognitively demanding.

What is the whole thing about?

<i>The Early Christians</i>	
<i>Judaism at time Christianity emerged</i>	<i>Early Christianity</i>
<i>Main ideas</i>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<i>So what? What is important to understand about this?</i>	

This example illustrates how the teacher has providing for students the “main ideas” about specific comparisons to be made.

What is the whole thing about?

<i>The Early Christians</i>	
<i>Judaism at time Christianity emerged</i>	<i>Early Christianity</i>
<i>Main ideas</i>	
<input type="checkbox"/> <i>Beliefs about God</i>	
<input type="checkbox"/> <i>Beliefs @ how to please God</i>	
<input type="checkbox"/> <i>Beliefs about messiah</i>	
<input type="checkbox"/> <i>Role of sacrifice</i>	
<input type="checkbox"/> <i>People the religion was intended</i>	
<input type="checkbox"/> <i>Acceptance by Romans</i>	

- Leaving blank at least one or two of the main-ideas-of-comparison allows students the opportunity to generate other ideas, and thus think and demonstrate understanding beyond the parameters you have established.

What is the whole thing about?

The Early Christians	
Judaism at time Christianity emerged	Early Christianity
<i>Main ideas</i>	
Beliefs about God	
Beliefs @ how to please God	
Beliefs about messiah	
Role of sacrifice	

So what? What is important to understand about this?

ASN (Always, Sometimes, Never) Frame

Students might be required to list on the ASN frame features of an event that are **always** present, features that **sometimes**, but not always, are present, as well as features that would **never** be present during the event in present.

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Topic: **photosynthesis** TOOL BOX

is about...

CHARACTERISTICS OF THIS CONCEPT

ALWAYS	SOMETIMES	NEVER
Always occur	Sometimes occur, sometimes not	Never occur

So what? What is important to understand about this?

RELATE table

This think-sheet requires students to produce information that demonstrates they can identify the gist and essential features of an event, as well as evaluate it in terms of (a) whether this event (or events like it) are valuable to our society and (b) how society facilitates or impedes the event (or events like it).

For example, to evaluate students understanding of the significance the use of cloning technology, students might be asked to complete a RELATE think-sheet on it.

RELATE to real-world

Reveal the key features

cloning
making an exact duplicate of an organism

DNA is extracted from organism & duplicated

new organism is "grown" in a laboratory

DNA splicing can be used to create new organism that's then cloned

Evaluate its value
Why this idea SHOULD be part of today's world

OR

Why this idea should NOT be part of today's world

Cloning is good because it allows us to improve food sources

If you can clone an animal, you can clone a person...upsets the natural laws of human development & evolution

List examples

Example from lesson

Since cloning with DNA splicing is now possible, we could "design" our own babies or replicate ourselves exactly.

Real-world example

Cloned (DNA splicing) vegetables & other plants have been used to manufacture drugs & as more hearty food sources.

Sheep was recently cloned.

Ways it has been PROMOTED

OR

Ways it has been PREVENTED

scientists argue that discovering and using new technology is natural part of man's evolution.

President Clinton proposes a new law that prohibits research on human cloning.

This idea is like...

...science fiction coming true.

...identical twins that live at different times. Although their DNA is the same, they are individual people who live their own lives.

Explain an experience or knowledge connection

Jurassic Park movie - about cloning dinosaurs from DNA extracted from petrified blood inside mosquitoes that had bitten dinosaurs (bugs were 'frozen' in hardened tree sap).

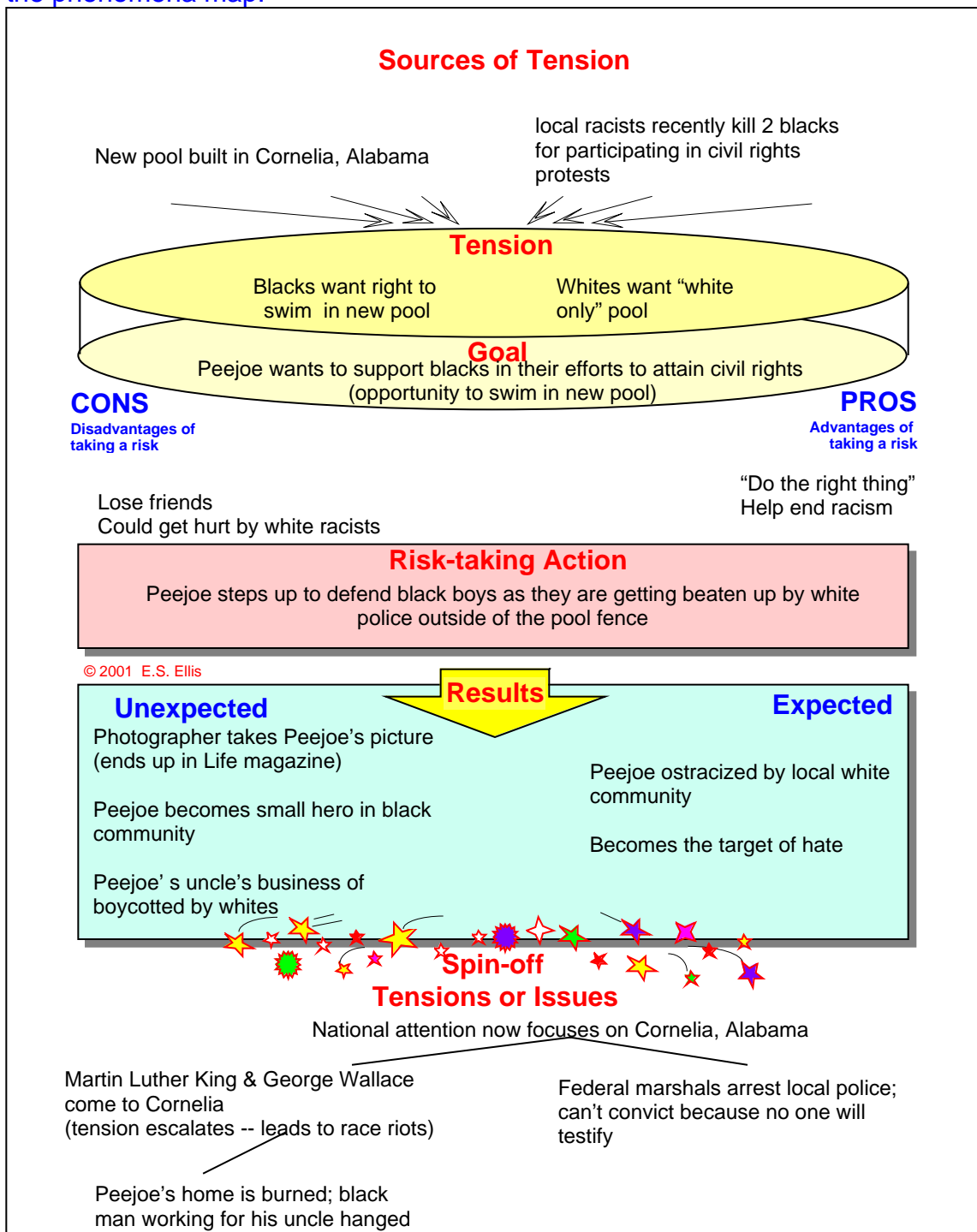
Can't clone memory or a mind, so what's the big deal about cloning humans?

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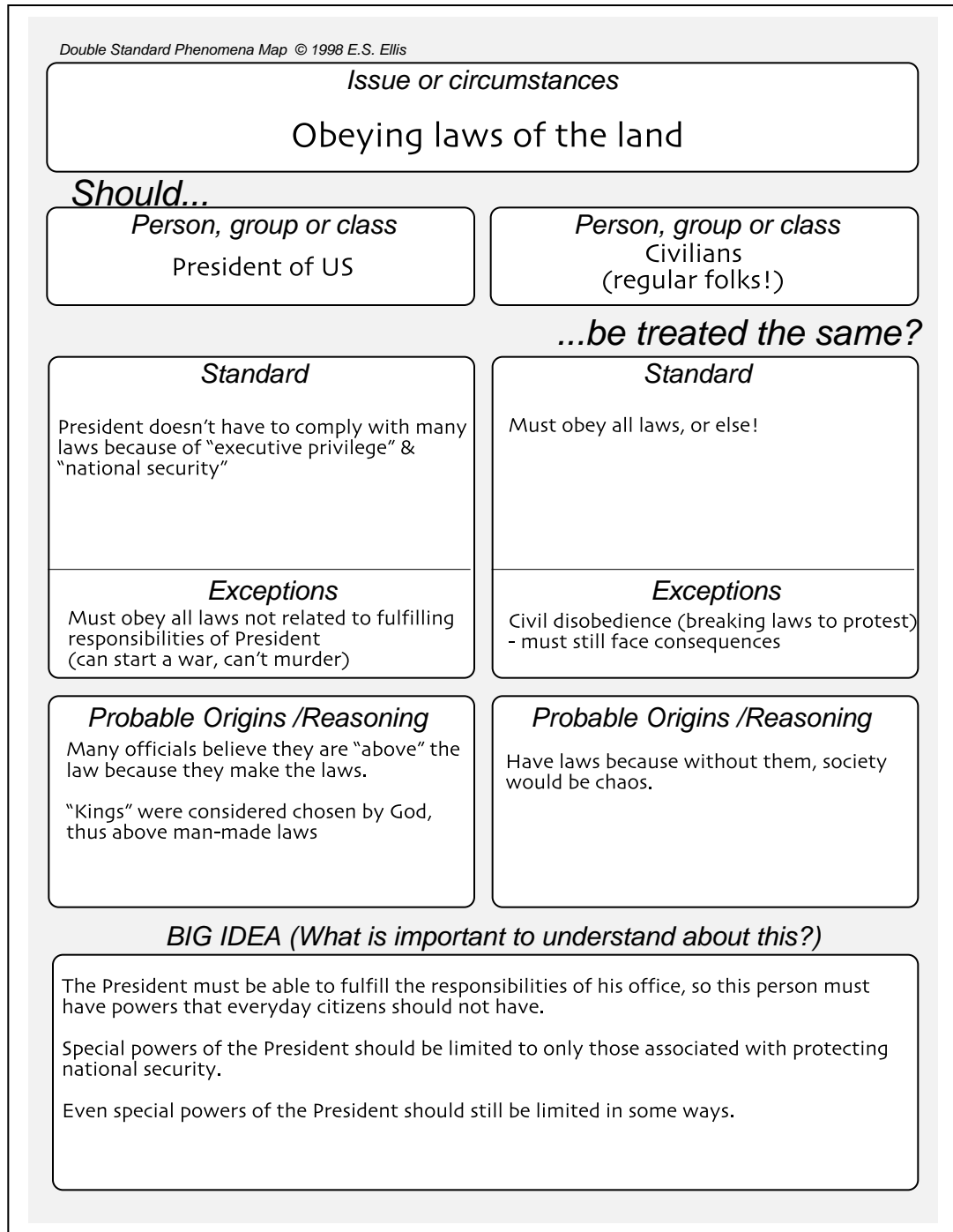
Phenomena maps

Phenomena maps are used to depict the essential elements of an event, and thus can be excellent devices for assessing students' understanding of the events.

For example, the Risk taking phenomena map here was used to depict the risk-taking action taken by Peejeo, the character in the book, "Crazy in Alabama." Here, in lieu of a traditional test in language arts class, the teacher assessed students' understanding of a pivotal event in the novel by having them complete the phenomena map.



How different parties' behavior in various events, or circumstances. is a topic commonly studied in school. The **Double standard** phenomena map can be used to assess students' understanding of events from this perspective.



One of the most common topics of study is how we attempt to influence, or control, outcomes. The Chaos/control phenomena map can be an excellent device for assessing students' understanding of our attempts to control something.

