TITLE OF THE LESSON

US History Unit 1 Lesson 36 –Expanding Interpretation
How does confidence expand interpretation?

TIME ESTIMATE FOR THIS LESSON

One class period

ALIGNMENT WITH STANDARDS

National Council for the Social Studies: Curriculum Standards for the Social Studies

III. People, Places & Environments

g. describe and compare how people create places that reflect culture, human needs, government policy , and current values and ideals as they design and build specialized buildings, neighborhoods, shopping centers, urban centers, industrial parks, and the like.

IV. Individual Development & Identity

h. work independently and cooperatively within groups and institutions to accomplish goals.

VI. Power, Authority, & Governance

g. evaluate the role of technology in communications, transportation, information-processing, weapons development, or other areas as it contributes to or helps resolve conflicts.

VII. Production, Distribution, & Consumption

e. analyze the role of specialization and exchange in economic processes.

VIII. Science, Technology, & Society

b. make judgments about how science and technology have transformed the physical world and human society and our understanding of time, space, place, and human-environment interactions.

MATERIALS

Question Series 36—Teacher Page
The Map Sketch Guide (Sketch #28)—Teacher Page
Teflon pot

PRINTED MATERIALS

Springboard 36—Student Page(Avery Label #8160)
Expanding Scientific Interpretations—Reading (cut apart fact blocks and place in Teflon pot)
Prism Table Tent Instructions—Student Page (print as overhead)
The Map Sketch Page (Sketch #28)**—**Student Page

LESSON OBJECTIVES

- To gain an understanding of the diversification major American industry must take as scientific needs and interests change through the targeted examination of the DuPont company history
- To gain an understanding of how American industries altered their production and research during times of war, to support the needs of the federal government and military
- To critically review concepts that have been explored through sketchbook work, identifying those whose inclusion in the unit project could help to diversify presentation
- To review concepts which can contribute to diverse historical examination and reflection and create Prism Table Tents featuring clues on how these concepts can be successfully integrated into unit projects
- To demonstrate conceptual planning through the development of a project map for the Dreamweaver Breaking Fences project

FOCUS AND MOTIVATE STUDENTS – WARM-UP ACTIVITY

SPRINGBOARD: "The Spatula"—Create a menu for a 5-course meal containing dishes that could be prepared using only a spatula. *No Discussion Allowed!*

1. Greet and Instruct—As students enter the classroom welcome them and hand each student a "The Spatula" Springboard sticker (**Springboard 36**). Instruct students to place the sticker on the back of **The Map Sketch Page** located at their desks. Students' menu should also be done on the back of the sketch page. If students seem unfamiliar with the term *spatula* you may say the word aloud and cue them to think about tools found in a

kitchen. Do not describe what a spatula is because the purpose of the Springboard is for students to realize through menu presentations that there are several types of spatulas with very different functions.
2. Garden Care—Check and water quads' planted seeds, once gardening pairs have finished the Springboard.

COMPELLING WHY
SUBJECT REASON: Discovering What it Means to Be Human
UNIT STRAND: The Value of Individuality
What is the role of the individual in society and how has that role changed over time?

COMPELLING WHY THREAD: *How does confidence expand interpretation?*
CONCRETE CONNECTIONS: movie explanations and hunting.

LEADING THE DISCUSSION
1. Question Series—Lead students through **Question Series Lesson 36.**
2. Enduring Impression—Tell students to continue thinking about how understanding, confidence, and interpretation build into one anther, , enhancing the skills of an individual. Today's activities are intended to demonstrate how confidence fosters experimentation, subsequently leading to multiple distinct and valid interpretations.

ACTIVITIES – INDIVIDUAL AND GROUP

LEARNING ACTIVITY #1—EXPANDING SCIENCE **TIME FRAME—15 MINUTES**
Multiple Intelligence (MI)—Linguistic, Bodily-Kinesthetic

1. Preparation—In this activity, students with be examining the varied functions the DuPont company has performed through its 200 year history. Prior to class, cut apart the fact blocks found on pages 2-9 of **Expanding Scientific Interpretations**, crumple them into balls, and place them inside a Teflon pot. Teflon is one of the milestone scientific inventions credited to DuPont research.

2. Explain Context—Tell students this activity will help them to understand the diversity American industries have experienced through different eras of American History. They will be analyzing the history of DuPont, one of the world's leading scientific research and development companies. Begin by reading the first page of the **Expanding Scientific Interpretations** aloud.

3. Select Readings—Tell students they will each have the opportunity to present one milestone scientific development credited to the hard work and research done by DuPont. Hold up the Teflon pan containing the crumpled DuPont readings. Tell the class that all the secrets of the company are contained within the pan, and they each get to become the expert representative for one advancement made by DuPont. Walk to each quad, allowing students to reach into the pan and grab one of the readings. A total of 32 readings have been provided to ensure that all students have a drawing choice. If you have a small class, you may wish for students to read multiple readings.

4. Determine Order—Tell students that the DuPont readings should be shared in chronological order so that the progression of scientific development can be more easily understood. So, prior to reading, students must stand and organize themselves by chronological invention dates (found in the title of each reading). Instruct students to stand and begin sorting themselves into a line along a wall of the classroom (direct students' attention to a wall of the room). If students' have drawn multiple readings, instruct them to arrange themselves according to the earliest reading they have, then reposition themselves in the chronology line after that reading is finished Allow students 3-5 minutes to order themselves into a line.

5. Present—Instruct the student with the earliest DuPont date to read their DuPont page aloud. After the reading, ask students if they have any comments or questions on the information shared, then move to the next reading. After all readings have been shared, instruct students to return to their desks.

6. Discuss—Initiate discussion by asking students to explain how DuPont is similar to spatulas (from Springboard and Question Series). Students should conclude that the research done by DuPont and spatulas both have

assorted appearances, functions, and revolutionized the way Americans perform some tasks. For example, frying spatulas changed the way people were able to fry meat, much like mixing spatulas allow for speedy combining of ingredients. Nylon revolutionized military strategy by enabling the creation of parachuting divisions, while Teflon revolutionized cooking strategy. Display the Teflon pan which was used earlier in the activity and lead students into a brief discussion of the impact Teflon had on the cooking world by asking the following: *What do you already know about Teflon? What are the advantages of a non-stick surface? What are the disadvantages? How did Teflon promote healthier eating habits? –butter and oil were no longer needed in the frying process. What are the cleaning advantages? Finally, what special care must be taken when using Teflon-coated pots?* Next, lead into a discussion of how influential a company with these diverse inventions would be in societal development .by asking the following: *Why would a company want to develop such diversity in production? What are the advantages? What are the weaknesses? How did DuPont address the needs of American citizens, government, and military? How does DuPont's growth demonstrate their scientific confidence and interpretation?*

7. Make Connections—Conclude by telling students that a complete unit project presentation should contain similar diversity in goals, confidence, and interpretation. The project should not only present two selected American events, it should also theorize on multiple facets of the events (Why could Americans let this happen? How did it affect American culture? How else could the event have progressed? What were the pivotal decisions made during the event? What other effects could this event have had?). Their approach should be similar to DuPont's scientific testing…mix ideas, test their validity, clarify arguments that appear valid, and alter arguments which aren't holding up to the test. Tell students that the components reviewed in the next activity will help them to add diversity into the presentation and interpretation of their project.

LEARNING ACTIVITY #2—TABLE TENT AIDS **TIME FRAME—25 MINUTES**
Multiple Intelligence (MI)—Linguistic, Interpersonal

1. Review Concepts—Ask students to quickly review through their sketchbooks, listing off any concepts they believe could expand their construction of unit projects. As students list off concepts, make a list on the board. Concepts should include, but are not limited to: Shakespearian Moments, Skeleton Key, Compelling Element Collage, Ravines of Despair, Bridges of Curiosity, Imprint Essays, Becoming an American, Insights & Understandings, Contemporary Novel Investigations.

2. Discuss—Lead a discussion on each of the ideas listed on the board. Ask students the following questions to establish the usefulness of incorporating each item into the unit project: *Can you explain the concept? What is the purpose and value of this concept? How can this concept be connected to diverse events? Can this concept strengthen historical analysis and interpretation?* If so, it should be left on the board as a concept that should be included in students' unit projects. If not, erase the concept because it doesn't apply to project work.

3. Assign Concepts—Assign each quad to address 2-3 of the concepts listed on the board. Overlap concept assignment so that at least two table tents are created on each concept. This will help ensure students' have a diverse and plentiful collection of table tents to consult if they are struggling to incorporate confident interpretations into their unit project.

4. Outline Build—Display overhead of **Prism Table Tent Instructions.** Quickly read through the instructions, emphasizing the panel structure each tent should follow. Tell quads they are responsible for creating a prism table tent for each of the concepts they have been assigned, using materials from their quad toolboxes. Tell students that the created Prism Table Tents will be displayed around the computer lab for the remaining working days students will have for their projects (5 days total), so they should look professional and contain a wealth of creative and useful ideas for project development.

5. Quad Work—Allow quads 20 minutes to construct their Prism Table Tents. Circulate through the room sparking quad discussion of concepts and offering guidance as needed. When tents are finished, instruct students to display them in a specific area of the classroom, such as along a chalkboard railing.

6. View Tents—Tell students to stand and take several minutes to view the table tent collection. Remind students that they will have additional time to consult the tents since they will be available in the computer lab as students work on their Dreamweaver Breaking Fences Project.

LEARNING ACTIVITY #3—MAPPING OUT PROJECTS **TIME FRAME 20 MINUTES**
Multiple Intelligence (MI)—Spatial, Linguistic

1. Explain Sketch—Instruct students to refer to **The Map Sketch Page.** Explain the sketch as detailed in **The Map Sketch Guide.** Draw students' attention to the concept list found on the board. Remind students that these ideas (further developed on the table tents) should be integrated as project pages or sections of pages. If needed, students can consult the table tents as they design their map. Allow students the remainder of the class to work on their sketch page. Continue to circulate around the room, answering students' questions and concerns as needed.

2. Review Progress—As the class period draws to a close, ask several final questions on students' grasp of their unit project map plan: *Does your plan include integration of all the concepts found on the board? Do you clearly understand how you plan to connect all the pages you plan to build? Have you given any thought to where you wish to locate a navigation bar or menu your page to enable easy viewing of your project pages? If not, take a minute to write navigation bar or menu ideas on your sketch page.* Tell students they will be spending the next two days in the computer lab working on their Breaking Fences Project, so they should come to the next class ready to work.

HOMEWORK

1) Complete **The Map Sketch Page**.
2) Finish all steps of the **Contemporary Novel Investigation** by Lesson 41.
3) Continue to draft historical analyses of selected project events and build Breaking Fences Project outside of class, since in-class time is limited. Remember, the next two class periods will be spent in the computer lab, so be ready to work efficiently on your project.

GROUP ROLES

None

DOCUMENTATION FOR PORTFOLIO

Sketchbook:

The Map Sketch Page (#28)
Under the Magnifier Sketch Page (#27)
Unit Project Supernova Diagrams
Unit Project Fence Assemblies (if printed)
Unit Project Picket Outlines (if printed)
Springboard 31
Checkin' the Fenceline Sketch Page (#26)
Imprint Argument 2 (handwritten)
Sensory Cinders Sketch Page (#25)
Supernova Diagram: Imprint 2
Frozen Insights Sketch Page (#24)
Butter Insights Sketch Page (#23)
Wisdom's Growth Sketch Page (#22)
Curiosity Imprint Essay (draft 1)
Sketchbook Reflection 2
Curiosity Pedestals Sketch Page (#21)
Bridges of Curiosity Sketch Page (#20)
Acceptance Imprint Essay (draft 1)
Becoming an American Sketch Page (#19)
Hope Imprint Essay (draft 1)
Measuring Accomplishments Sketch Page (#18)
Springboard 21
Ravine of Despair Sketch Page (#17)
Supernova Wish Sketch Page (#16)
Springboard 16
Belief Imprint Essay (draft 1)
Hero's Quest Sketch Page (#15)
Sides of the Fence Sketch Page (#14)
Springboard 13
The Firelines Sketch Page (#13)
Collision Grounds Odyssey Reflection
Tic Tack Sketch Page (#12)
Sketchbook Reflection 1
Preamble Sketch Page (#11)
Vendor Decision Sketch Page (#10)
Grindstone Sketch Page (#9)
Workin' Sketch Page (#8)
Eyes of the Designer Odyssey Reflection
Dreams Sketch Page (#7)
Historian Rail Trail 1
Skeleton Key Imprint Essay (draft 1)
Skelton Key Sketch Page (#6)
Byte 1 Driving License
Tragedy Imprint Essay (draft 1)
Haunted House Sketch Page (#5)
Elements Continuum Sketch Page (#4)
Emotions Abound Odyssey Reflection

Formal Portfolio:

Imprint Argument 2
Imprint Argument 1

Imprint Argument 1 (handwritten) Springboard 18 Supernova Diagram: Imprint 1	Expressions Honeycomb Sketch Page (#3) Garden Plot Sketch Page (#2) Sketchbook Rules Sketch Page (#1) Springboard 1	