Summary of Presentation
The purpose of the Using the Illinois Chronicles to Engage Students in Learning Presentation is to expose educators to the Bicentennial resources available and allow them to engage in activities that they could use in the classroom with their students to study Illinois History long past the Bicentennial Celebration.

Using the Illinois Chronicles to Engage Students in Learning Resources

Presentation Overview
This workshop provides participants
- an opportunity to understand the Bicentennial resources available in all Illinois schools
- an opportunity to experience activities that can be used to engage students in learning about Illinois history

NOTE: Presenters can use the following PowerPoint as needed. The presentation can be used in its entirety or portions can be used based on the needs of the school/district. The following is an overview of the presentation in totality.

<table>
<thead>
<tr>
<th>Slides</th>
<th>Topics Included</th>
<th>Estimated Time</th>
<th>Preparation Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note:</td>
<td>The following are suggestions for presenting Using the Illinois Chronicles to Engage Students in Learning Workshop. The presenter should use their best judgement on the audience needs when planning the presentation. Times could be extended depending on amount of discussion or work time provided to participants for various activities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>This is a hidden slide detailing a breakdown of the presentation and MUST INCLUDES.</td>
<td>10-15 minutes</td>
<td>**For entire presentation it would be helpful to have copies of the Illinois Chronicles (including timeline) and Educator’s Guide available for participants to use if possible.</td>
</tr>
<tr>
<td>2-7</td>
<td>Title Slide and Introductory Slides</td>
<td>10-15 minutes</td>
<td>Slides 4 and 7 may need to be edited depending upon activities used in presentation</td>
</tr>
<tr>
<td>8-10</td>
<td>Activity #1: Moldy Melon Activity</td>
<td>30 minutes</td>
<td>This activity requires pre-preparation of science activity (beginning approximately 2 weeks before workshop date).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Materials Needed:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Moldy Melon article</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Post-its</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Chart paper</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Hold the Mold activity and worksheet</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Mold-prepared samples to observe (see Hold the Mold activity for directions)</td>
</tr>
<tr>
<td>11</td>
<td>Activity #2: Heroes of Illinois Activity</td>
<td>30 minutes</td>
<td>Materials Needed:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Illinois Chronicles Timeline (or copies of timeline pages)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• ½ sheets of poster board</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Art supplies</td>
</tr>
<tr>
<td>12-14</td>
<td>Activity #3: Engineering Marvels Activity</td>
<td>30 minutes</td>
<td>Materials Needed:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Rainbow City article</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Video in PowerPoint on World’s Fair</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Engineering Marvels 3-column chart</td>
</tr>
<tr>
<td>Activity</td>
<td>Description</td>
<td>Duration</td>
<td>Notes</td>
</tr>
<tr>
<td>----------</td>
<td>-------------</td>
<td>----------</td>
<td>-------</td>
</tr>
<tr>
<td>15-16</td>
<td>Activity #4: Land of Lincoln Activity</td>
<td>30 minutes</td>
<td>*Helpful for participants to have access to PowerPoint to complete this activity. Materials Needed: ▪ Wartime Speech for Our Times article ▪ Text of Gettysburg Address ▪ Tweet template or access to internet</td>
</tr>
<tr>
<td>17-18</td>
<td>Activity #5: Happy 200th Birthday Illinois Activity</td>
<td>30 Minutes</td>
<td>**This activity could require ordering a cake to celebrate Illinois’ 200th Birthday in advance of workshop if desired. Materials Needed: ▪ Blank paper or computer access</td>
</tr>
<tr>
<td>19</td>
<td>Contact Information and Wrap-Up</td>
<td>10 minutes</td>
<td>Please feel free to adjust this slide to include presenter contact information as well as Content Specialist contact information.</td>
</tr>
</tbody>
</table>

**Presentation Handouts**

Handouts to accompany the presentation are located in this file, beginning on page 7. Resources provided include:

- PDFs of the Educator’s Guide pages associated with the activities
- Any Illinois Chronicles articles specifically mentioned/needed
- Supplementary handouts needed to engage participants in activities

**If copies of the Illinois Chronicles (with timeline) and accompanying Educator’s Guide are available, some of the Handouts provided may not be needed. It is suggested that participants bring with them one of their school’s copies of the Illinois Chronicles when coming to the workshop if possible.**

**Additional Resources**

- Additional information and resources connected to the Illinois Chronicles and Educator’s Guide is located at [http://www.ilclassroomsinaction.org/bicentennial.html](http://www.ilclassroomsinaction.org/bicentennial.html)
- Additional resources about the content areas and standards implementation is located at [http://www.ilclassroomsinaction.org/](http://www.ilclassroomsinaction.org/)

**Prepare for Facilitation**

1. Determine the purpose of presentation and appropriate timeline.
2. Read the following Facilitator’s Guide. Depending on purpose and timeframe, determine which activities will be a part of the session.
3. Contact school(s) to confirm the availability of Chronicle and Timeline.
4. Review the details of the activities and the background information needed.
5. Make copies of any handouts to be used and gather and prepare any additional materials needed.
6. Ensure that the presentation room includes internet access.
<table>
<thead>
<tr>
<th>Slide #1 - Hidden Slide</th>
<th>This is a hidden slide that lists the activities included in the presentation as well as MUST INCLUDES.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Slide #2</strong></td>
<td><strong>Be sure to adjust presenter names</strong></td>
</tr>
</tbody>
</table>
| Using the Illinois Chronicles to Engage Students In Learning | Title Slide  
This slide includes a video of Miles Davis in concert that can be played as participants are arriving at workshop. Video is just over 7 minutes long. |
| **Slide #3**            | Image of covers of Illinois Chronicles and accompanying Educator’s Guide                       |
| Happy 200th Birthday Illinois! |                                                                                                  |
| **Slide #4**            | **Adjust the content of this slide as needed.**                                                 |
| Professional Learning Materials Provided | Slide includes a list of materials that will be provided to participants of the workshop. |
| **Slide #5**            | Use text on slide to explain the Illinois Chronicles                                            |
| Resources for the Classroom |  
- What they are  
- How many each school received and how to get more  
Let them explore the books (if possible)  
- amount of time needed depends on if they come with their books or are sharing several samples  
- Highlight things like the articles and pictures  
- Timeline feature  
- Back of timeline |
| **Slide #6**            | Use text on slide to explain the Educator’s Guide                                               |
| Resources for the Classroom |  
- What it is  
- How many each school received and how to get more  
Walk them through copies of the Educator’s Guide (if possible)  
- Not detailed lesson plans, ideas to get people started  
- Explain IL LS “possible correlations”  
SHOW THEM WHERE TO FIND THIS RESOURCE ONLINE NOW (link is on slide) |
| **Slide #7**            | **Edit this slide as needed.**                                                                  |
| Classroom Activities from the Educator’s Guide | This slide includes a brief overview of the activities that will be included in the workshop. |
### Moldy Melon Activity (slides 8-10)

**This activity requires pre-preparation of science activity from Hold the Mold (beginning approximately 2 weeks before workshop date).**

**Materials Needed:**
- Moldy Melon article
- Post-its
- Chart paper – prepped with title “Driving Question Board”
- Hold the Mold activity and worksheet
- Mold-prepared samples to observe see Hold the Mold activity for directions

#### Slide #8

- Have participants read the article, “Miraculous Moldy Melon” alone
- With a partner jot at least 2-3 questions they have after reading the article down on sticky notes
- Stick sticky notes on Driving Question board chart paper as each group shares their questions
- Discuss how we can use the questions generated from reading the article to guide our investigation into the scientific principles from the article.

#### Slide #9

**For workshop purposes, be sure to pre-make the moldy objects at different intervals (ex: 2 weeks out, 1 week out, 3 days out).**

This slide provides an overview of the Hold the Mold Activity. Entire activity is included beginning on page ____ and can be shared with participants to discuss procedure.

#### Slide #10

**For workshop purposes, be sure to pre-make the moldy objects at different intervals (ex: 2 weeks out, 1 week out, 3 days out).**

- Pass out modified worksheet to participants (just one sided with three spots for observation)
- Allow groups of participants to observe the pre-made samples starting with the most recently prepared set.
- When all groups have seen all samples and completed observations, lead a discussion about modifications that would be needed for other grades and what possible extension activities could tie into this article on the Moldy Melon.

### Heroes of Illinois Activity (slide 11)

**Materials Needed:**
- Illinois Chronicles Timeline (or copies of timeline pages)
- ½ sheets of poster board
- Art supplies

#### Slide #11

1. Group participants in groups of 3-4.
2. Allow participants time to explore the timeline from the Illinois Chronicles in order to select a person to nominate for an “Oscar of Illinois”
3. Each group then can create a campaign poster for their nominee that includes who they’ve nominated and up to 3 reasons why. (15-20 minutes)
4. Information on their nominee can be gathered from the Illinois Chronicles and the internet (if possible).
5. Once all groups are completed, have groups share their nomination and reasoning why. Posters can then be displayed around the room.
6. Discuss that in the classroom students could be asked to vote on their favorites after all nominations are presented, perhaps by secret ballot. As an extension you could even hold a mock “Oscars” ceremony.
| Engineering Marvels Activity (slides 12-14) | Materials Needed:  
Rainbow City article  
Video in PowerPoint on World’s Fair  
Engineering Marvels 3-column chart |
|---|---|
| **Slide #12** | 1. Pass out “Rainbow City, Showcase for the Modern World” Article  
2. Ask participants to read the article independently |
| **Slide #13** | 1. Prior to viewing pass out the Engineering Marvels three-column chart to participants.  
2. Ask participants to jot down ideas in the far left column as they watch for the types of advancements that were being showcased with the demonstration.  
*Video is a shortened version of this video: [https://youtu.be/QGfRgU4cPrY](https://youtu.be/QGfRgU4cPrY) if video in PPT doesn’t work start online video at approx. 6 minute mark |
| **Slide #14** | 1. Ask participants to share the types of advancements they observed in the video.  
2. Then allow participants to work with a partner or small group to complete the middle column, what areas have modern-day automobiles improved from the 1933 version.  
3. Have participants share answers in middle column.  
4. Finally, ask participants (individually or with a group) to complete the final column, what types of advancements do they see in the future for automobiles?  
5. Have participants once again share some of the ideas their group came up with for the final column.  
6. Discuss possible extension ideas that could be done in the classroom after this activity was completed. |

| Land of Lincoln Activity (slides 15-16) | *Helpful for participants to have access to PowerPoint to complete this activity.  
Materials Needed:  
Wartime Speech for Our Times article  
Text of Gettysburg Address (Included in this file or can be found at: [https://www.loc.gov/exhibits/gettysburg-address/ext/trans-nicolay-inscribed.html](https://www.loc.gov/exhibits/gettysburg-address/ext/trans-nicolay-inscribed.html)) |
|---|---|
| **Slide #15** | 1. Have participants individually read the article “Wartime Speech for Our Times”  
2. Then using the text of the Gettysburg Address provided, have participants work on modifying the language for the modern-day – specifically thinking about the use of this text in social media.  
3. Ask participants to share how they think the language in the Gettysburg Address may need to be adapted for social media. |
| **Slide #16** | 1. Once they’ve made some notes and discussed adaptations needed, allow participants to actually create a social media post using their modified text of the Gettysburg Address.  
2. Many options exist on slide: paper template as well as multiple links (easiest to have already shared the PowerPoint with participants so they can click the links in the presentation).  
3. When everyone has had a chance to create their social media post, have participants share posts with whole group or in a small group.  
4. Discuss potential modifications and/or extensions that could be used with this activity. |
### Happy 200th Birthday Illinois Activity (slides 17-18)

**This activity could require ordering a cake to celebrate Illinois’ 200th Birthday in advance of workshop if desired.**

**Materials Needed:**
- Blank paper or computer access

#### Slide #17

**Happy 200th Birthday, Illinois!**

- Discuss how as a culmination of a variety of activities within the classroom, teachers could elect to have their students celebrate Illinois’ 200th Birthday this December with a selection of ideas from the Educator’s Guide.
- Read/discuss the ideas listed on the slide as possible ways to celebrate Illinois’ Birthday in the classroom.
- Brainstorm any additional ideas participants have for how students may enjoy celebrating Illinois’ 200th Birthday in the classroom.

#### Slide #18

**Happy 200th Birthday, Illinois!**

1. Group participants into groups of 3-4.
2. In their small group, have participants either write or type their quiz questions out. They may use the Illinois Chronicles to assist with writing the questions.
3. When all groups have completed the questions, allow each group to quiz remaining participants. This could be made into a competition by asking each group to write their answers down and “grading” the quiz at the end of all questions. Perhaps the winning group will be the first in line for cake!

#### Slide #19

**Be sure to add presenter contact information to this slide and adjust the note if not providing cake.**

This slide provides a reminder of where the Bicentennial materials are located. *(Please feel free to take participants to the website again if it would be helpful)* As well as contact information for the ISBE Content Specialists who have been working with the Bicentennial Materials. Time can be provided at this point for participants to explore the additional Bicentennial Materials on the Classrooms in Action website as well as more carefully peruse the Illinois Chronicles.
"Moldy Mary" was so nicknamed for her contribution to the discovery of the miraculous mold removed from the rind of a cantaloupe, which was potent enough to mass produce penicillin, heralding the dawn of the age of antibiotics.

**DATE: 1943**

**ARTICLE: “MIRACULOUS MOLDY MELON”**

**STANDARDS**

**SCIENCE STANDARDS**
K-LS1-1: Use observations to describe patterns of what plants and animals (including humans) need to survive.
3-LS1-1: Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.
5-LS2-1: Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

**SOCIAL SCIENCE STANDARDS**
SS.H.1.1: Create a chronological sequence of multiple events.
SS.H.2.1: Describe individuals and groups who have shaped a significant historical change.
SS.H.1.3: Create and use a chronological sequence of events.
SS.H.1.5: Create and use a chronological sequence of related events to compare developments that happened at the same time.
SS.H.3.5: Explain probable causes and effects of events and developments in U.S. history.

**ACTIVITIES**

- Capture your students’ imaginations with a controlled mold-growing experiment. Utilize existing lesson plans from reputable sources that use bread, fruit, and other readily-available materials. We recommend the EPA (Environmental Protection Agency) lesson plan called “Hold the Mold” for its coverage of this topic. The downloadable PDF guide they provide includes a “Student Mold Growth Observation Worksheet” to easily document student engagement.
- Research where in the natural world we find fungi, and the roles they play in food webs. Investigate why mushrooms so often appear near trees and on forest floors.
Explore how fungi develop symbiotic and pathologic relationships with plants (mycorrhiza). How has this relationship affected life on earth, in particular, the colonization of life on land 400 million years ago?

Analyze the potential good and the known harm molds cause as both hosts and toxins. What properties of fungus was the Department of Agriculture seeking as a catalyst for growing penicillin and how were samples procured and evaluated?

Create a timeline of six key inventions or turning points that influenced the outcome of WWII, in addition to the development of antibiotics as a treatment for allied troops.

Invite guest speakers to the classroom to explore modern careers related to how we grow and utilize fungi, as well as to explore initiatives in harnessing the power of fungi for potential problem-solving in health sciences and agriculture. Consider a cheesemaker, a mushroom farmer, or a mold remediation technician in addition to mycologists, toxicologists, and bacteriologists.

6–12

STANDARDS

SCIENCE STANDARDS
MS–LS1–1: Conduct an investigation to provide evidence that living things are made of cells, either one cell or many different numbers and types of cells.
MS–LS2–3: Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.
HS–LS1–1: Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.
HS–LS2–3: Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.

SOCIAL SCIENCE STANDARDS
SS.G2.6–8.MC: Evaluate how cultural and economic decisions influence environments and the daily lives of people in both nearby and distant places.
SS.H.1.6–8.MdC: Analyze connections among events and developments in broader historical contexts.
SS.H.4.6–8.MC: Organize applicable evidence into a coherent argument about the past.
SS.H.1.9–12: Evaluate how historical developments were shaped by time and place as well as broader historical contexts.
SS.H.4.9–12: Analyze how people and institutions have reacted to environmental, scientific, and technological changes.
SS.H.8.9–12: Analyze key historical events and contributions of individuals through a variety of perspectives, including those of historically underrepresented groups.
SS.H.11.9–12: Analyze multiple and complex causes and effects of events in the past.
ACTIVITIES

- Explore the research, development, and applied sciences of the U.S. Department of Agriculture, the Food and Drug Administration, the U.S. Military, and the pharmaceutical industry in producing penicillin and other fungus-based resources as tools for major health initiatives and military efforts.

- Why are antibiotics important? Predict what might have happened during WWII had antibiotics not existed. Evaluate the impact of antibiotics and how they have affected healthcare.

- Investigate how bacteria adapt to make antibiotics less or even ineffective over time. Research antibiotic resistant bacteria cases and discuss various outcomes. Speculate how this will influence the future of medicine and human health.

- Write a dystopian short story or letter to a friend describing a future where modern antibiotics have become ineffective against bacterial colonies of “superbugs”.
MIRACULOUS MOLDY MELON

MEDICINE FROM ROTTEN FRUIT SET TO SAVE ALLIED LIVES

By our science editor
October 1, 1943

A REVOLUTIONARY antibacterial drug is certain to become as indispensable to the Allied war effort as any weapon, U.S. military chiefs predicted yesterday. The fungus needed to mass-produce penicillin has been successfully isolated—from a moldy cantaloupe in a Peoria grocery store.

The discovery of penicillin by Scotsman Alexander Fleming more than a decade ago received limited attention at the time. However, World War II has since created an urgent need for antibacterials to combat diseases and infected wounds.

Finding the right fungus to make sufficient quantities has eluded scientists—until now. Thanks to the tireless work of the U.S. Department of Agriculture’s research laboratory in Peoria, a “super mold” has been found capable of treating wounds as well as a wide range of life-threatening illnesses.

The ingenious Peoria scientists first tried to mass-produce penicillin using a syrupy by-product of cornstarch often dumped by local corn mills into the Illinois River. Although it upped the yield, they concluded that a more resilient mold was needed to maximize results.

Mycologist Kenneth Raper led the hunt for this tougher strain, ordering the U.S. Army Transport Command to collect new mold samples wherever they traveled in the world.

Peoria staff were also told to collect samples locally. Raper spent weeks sifting through decaying fruits, old cheeses, breads, meats, and soil samples, and finally came upon a mold on an overripe cantaloupe that was 50 times more potent than anything else previously tested.

It is said to have been brought in by a lab technician, now called “Moldy Mary.” After cutting the precious mold off the rind, staff are understood to have sliced up the “miracle melon” and unceremoniously eaten it.

Military chiefs said yesterday the pharmaceutical industry was ready to begin producing millions of units of penicillin for the U.S., British, and other Allied armies. The antibacterial drug is expected to save many lives in wartime, and beyond.

They added that Nazi Germany’s forces will have to rely on less effective sulfa drugs, which means higher fatalities and longer recovery times for their wounded.
Hold the Mold!

**Summary**
Students will learn about the different kinds of mold and how it grows. They will learn the health effects of mold and how to help avoid the growth of mold.

**Objectives:**
Students will:
- Understand what mold is and how it grows
- Observe the growth of different kinds of food molds & understand how to identify and prevent mold growth.

**Materials:**
- Small paper plates
- Sealable sandwich bags
- 5 apples or other fruit: quartered
- Sliced bread, halved
- Spray bottle with water
- Permanent marker to ID bags
- Tape to seal bags
- Observation Worksheets

**Materials Tip:** Use older apples or fruit “seconds” from a local orchard or market

**Background:**
What is mold?
Mold is the common name for many kinds of tiny organisms called fungi. There are thousands of types of molds that can be found indoors and outdoors. Different molds will grow in colonies, living on dead organisms such as decaying plants and animals, as well as non-living materials such as buildings, food, fabric and books. Some molds even thrive on living organisms as parasites. Molds play an important part of the natural decaying process of living organisms in the natural world. However, they may present a health risk in indoor environments. Molds need moisture to thrive and usually grow and reproduce spores in damp or moist places. Light and temperature also impact mold growth in different locations such as showers, kitchens, damp basements, and around windows. Mold travels by releasing spores into the air. Spores are reproductive structures that allow organisms such as fungi to spread and survive in almost any environment. Mold spores float through the air, landing on and interacting with thousands of living and non-living objects.

**National Science Standards:**
- Unifying Concepts and Processes
  - Changes, constancy, and measurement
  - Evidence, models, & explanation
- Science as Inquiry
  - Abilities necessary to do scientific inquiry
- Science in Personal & Social Perspectives
  - Personal health
  - Science and technology in society
  - Natural hazards
- History & Nature of Science
  - Science as a human endeavor
  - Nature of science

**Related Websites**
[www.epa.gov/mold/](http://www.epa.gov/mold/)
[www.epa.gov/children](http://www.epa.gov/children)
[www.cdc.gov/mold/](http://www.cdc.gov/mold/)

**Figure 1. Mold spores magnified.**
What does mold look like?
Mold grows in many sizes, textures, and colors such as white, black, green, blue, and orange. Spores are released by mature mold that varies in color, or may not be colorful at all. Each mold growth can be different.

What are the health impacts of mold?
Spores from mold growth, while natural, can also pose health risks. Some people, with or without allergies, are very sensitive to mold or may become sensitive to mold from single or repeated exposure. Molds, mold spores, and pieces of mold may impact a person’s health by causing minor irritations such as a runny nose or itchy, watery eyes to major health concerns such as difficulty breathing, asthma attacks, infections, fever, and major skin irritations.
The best way to reduce and prevent mold growth is to control moisture. To reduce mold growth in homes, schools and other buildings, it is important to keep humidity levels low, between 30-60%. To reduce excess moisture that mold needs to grow, it's also important to repair leaks, completely clean and remove any existing mold growth, ventilate bathrooms, kitchens and basements that are more prone to damp conditions, and use a dehumidifier to remove moisture from the air if necessary. Outside, mold may grow in damp, shaded areas with lots of leaves or compost. People who are sensitive to molds should be careful to avoid such places and areas prone to lots of mold growth.

When cleaning and removing mold at home or in school, use soap and hot water and always wear gloves, and a breathing mask, if necessary. For more information about mold and health concerns about mold, visit http://www.epa.gov/mold.

Procedure:
Warm-Up:
Ask students if they have ever seen mold. Discuss with students what mold is, where it comes from, and what purpose it serves. Show students a picture of moldy bread. Introduce them to the sources and health effects of mold.

Activity
To gain a clear understanding of what mold is, looks like, how it grows and spreads, students will conduct an experiment where they will grow contained household mold samples to observe and document.
1. Have students work in pairs.
2. Each pair gets a paper plate and a sealable plastic bag. Have students write their name and the date on their bag.
3. Students should then put their paper plate inside the bag, but not seal it yet.
4. Instruct students to place one slice of apple and one half slice of bread on their plate, inside the bag.
5. Students should use the water spray bottle to moisten their bread with one spray into the bag.
6. Students then seal their bag and place tape over the seal.
7. Place bags on a shelf where they will get warm, but not hot and can sit still for two weeks.
8. Instruct students that they are going to observe their experiment bag for mold growth. Each student gets worksheets to observe and record their observations and data each day for two weeks. Worksheets include questions to help guide observations and a place for students to sketch a simple drawing of their observations. Note: Sketches will not be shared at the end of the experiment. They are for the student to use as a data tool. Teachers may elect to use digital cameras to record daily mold growth progress and change as well.
9. At the end of two weeks, discuss what happened to the apple and bread. What changes were observed?
Wrap Up

Review questions & discussion:

- Did mold grow on the apple or bread first?
  
  Mold tends to grow on the bread first.

- How long did it take to see mold growth?
  
  Answers may vary based on moisture and temperature of the classroom. By the end of the first week, mold growth should be visible.

- What does the mold look like?
  
  Mold growth may vary in color, but tends to be white fuzzy spots that grow larger.

- What color is the mold?
  
  Mold will vary in color from white to green, blue, or grey.

- Texture: Is the mold fuzzy, lumpy, flat, shaped?
  
  Texture is likely to be fuzzy and bumpy, but will vary.

- Does the mold spread from one object to the other?
  
  Once mold growth is established, it will spread to other objects in the bag.

- Do you notice different molds on different foods?
  
  Mold growth will vary on food items used, location, and temperature.

- Why is it important that we not open the bags to smell the mold?
  
  It is very important that the bags stay sealed to prevent allergic reactions and the spread of mold spores into the air. Once mold growth is established in the bags, mold will start to release spores. When breathed in, mold and mold spores can trigger allergic reactions and irritations for people who are sensitive to them. Make sure to discard sealed experiment bags at the end of the experiment in the garbage.

- Are there different types of mold? Are some more harmful than others?
  
  There are thousands of species of mold. While all molds have the potential to cause health effects, not all molds are toxic. Some molds have beneficial uses to create things like cheeses and medicines. The research on molds that produce harmful toxins, called mycotoxins, is on-going. Mold growth in a building does not always indicate the presence of toxic molds, but for health and safety, mold should be removed right away.

- What does mold need to grow and how can you help prevent the growth of mold at home and in school?
  
  Mold needs moisture and a food source to grow. The best way to reduce and prevent mold growth and home and in school is to control moisture. Keep humidity levels at home and in school low with ventilation systems or a dehumidifier that remove excess moisture from the air. It is also important to repaired leaks and remove existing mold growth with soap and hot water.

Assessment:

Assess students based on their performance in the activity. Each student should have completed a worksheet with sketches and observations of their experiment. Use the wrap-up questions to evaluate the student knowledge gained in this activity.

Extensions:

1. The mold growth experiment can be extended for a longer growth cycle.
2. Repeat the experiment, but cover the plates so that students can compare mold growth in light and dark environments.
3. The experiment can also include the use of a variety of foods to compare different types, colors, and shapes of mold growth.
4. Instead of using individual disposable bags and plates, the classroom can conduct a mold experiment using one large glass jar or that can be tightly sealed. Please be careful not to open the mold filled container inside buildings. If the container is to be reused, open it outside, away from children and dispose of the moldy contents in the garbage or a compost container. To thoroughly wash the jar, use soap and hot water.

Resources and Related Links:

U.S. Environmental Protection Agency:
www.epa.gov/mold/

U.S. Environmental Protection Agency: Learn the Issues: Air
www.epa.gov/mold/moldguide.html
www.epa.gov/mold/pdfs/moldguide.pdf

Centers for Disease Control and Prevention
www.cdc.gov/mold/
Student Mold Growth Observation Worksheet: Name: __________________________

Instructions:
1. DO NOT open your experiment bag.
2. Look at the bread and apple on the plate in your experiment bag. What do you see?
3. Answer the observation questions to record your data and then draw a picture of what you see in the space provided beneath the questions.

Day ______ Data and Observations: Is mold growing? __________ What is mold growing on? ________________
What color is the mold? __________________________ Describe the texture of the mold (fuzzy, smooth, lumpy):

______________________________

Draw a picture of your experiment: What do you see?

Day ______ Data and Observations: Is mold growing? __________ What is mold growing on? ________________
What color is the mold? __________________________ Describe the texture of the mold (fuzzy, smooth, lumpy):

______________________________

Draw a picture of your experiment: What do you see?

Day ______ Data and Observations: Is mold growing? __________ What is mold growing on? ________________
What color is the mold? __________________________ Describe the texture of the mold (fuzzy, smooth, lumpy):

______________________________

Draw a picture of your experiment: What do you see?
<table>
<thead>
<tr>
<th>Day</th>
<th>Data and Observations: Is mold growing?</th>
<th>What is mold growing on?</th>
<th>What color is the mold?</th>
<th>Describe the texture of the mold (fuzzy, smooth, lumpy):</th>
<th>Draw a picture of your experiment: What do you see?</th>
</tr>
</thead>
<tbody>
<tr>
<td>______</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>______</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>______</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>______</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day ______ Data and Observations:</td>
<td>Is mold growing?__________ What is mold growing on?________________</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What color is the mold?___________</td>
<td>Describe the texture of the mold (fuzzy, smooth, lumpy):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Draw a picture of your experiment:</td>
<td>What do you see?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day ______ Data and Observations:</td>
<td>Is mold growing?__________ What is mold growing on?________________</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What color is the mold?___________</td>
<td>Describe the texture of the mold (fuzzy, smooth, lumpy):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Draw a picture of your experiment:</td>
<td>What do you see?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day ______ Data and Observations:</td>
<td>Is mold growing?__________ What is mold growing on?________________</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What color is the mold?___________</td>
<td>Describe the texture of the mold (fuzzy, smooth, lumpy):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Draw a picture of your experiment:</td>
<td>What do you see?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Observations:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What changes did you observe from start to finish? ________________</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What happened to the bread and apple in your bag? ________________</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How can you use this new knowledge to help prevent mold growth at home or in school? ________________</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| What does mold need to grow? ________________
Professional Learning Workshop Observation

Name: ____________________________

Instructions:
1. DO NOT open your experiment bag.
2. Look at the bread and apple on the plate in your experiment bag. What do you see?
3. Answer the observation questions to record your data and then draw a picture of what you see in the space provided beneath the questions.

Day _____ Data and Observations: Is mold growing? __________ What is mold growing on? _______________
What color is the mold? ________________ Describe the texture of the mold (fuzzy, smooth, lumpy):
______________________________________________________________________________________________

Draw a picture of your experiment: What do you see?

Day _____ Data and Observations: Is mold growing? __________ What is mold growing on? _______________
What color is the mold? ________________ Describe the texture of the mold (fuzzy, smooth, lumpy):
______________________________________________________________________________________________

Draw a picture of your experiment: What do you see?

Day _____ Data and Observations: Is mold growing? __________ What is mold growing on? _______________
What color is the mold? ________________ Describe the texture of the mold (fuzzy, smooth, lumpy):
______________________________________________________________________________________________

Draw a picture of your experiment: What do you see?
Throughout the timeline and within the articles of *The Illinois Chronicles* we meet many noteworthy (and sometimes notorious) individuals. Here’s an opportunity to explore the shining stars among the broad cast of characters in Illinois history. Roll out the red carpet! It’s time for the...Oscars of Illinois!

**K–5**

**STANDARDS**

**ELA STANDARDS**
3–5 Reading 1–3: Key ideas and details
3–5 Reading 7: Using illustrations to describe key ideas
3–5 Writing 4–9: Produce and share information
3–5 Speaking and Listening 1: Collaborative conversations
3–5 Speaking and Listening 4–6: Presentation of knowledge and ideas

**SOCIAL SciENCE STANDARDS**
SS.IS.8.3–5: Use listening, consensus building, and voting procedures to decide on and take action in their classroom and school.
SS.H.2.3: Describe how significant people, events, and developments have shaped their own community and region.
SS.CV.2.4: Explain how a democracy relies on people’s responsible participation, and draw implications for how individuals should participate.
SS.CV.3.4: Identify core civic virtues (such as honesty, mutual respect, cooperation, and attentiveness to multiple perspectives) and democratic principles (such as equality, freedom, liberty, and respect for individual rights) that guide our State and nation.

**OSCARS OF ILLINOIS ACTIVITY**

- Have students nominate individuals from *The Illinois Chronicles* or timeline to form an “honor roll” of nominees and then campaign for those candidates using speeches, advertising, and other persuasive arts.
- Classify the nominees into the color-coded categories from the timeline and have students vote within each category. Students should defend their vote through written arguments, class discussions, cooperative learning or debates.
- Once the winners have been chosen, ask students to present the awards in partners or groups, including writing and delivering acceptance speeches.

Tip: The Academy Awards (or Oscars) take place in the Spring each year. To align with this popular event, late February or early March can be a recommended target date for your very own “Awards Ceremony”.
The Illinois Chronicles captures a range of historical events and figures. Consider heroes, villains, agitators, inciters, victims, and bystanders to gain a more complex understanding of Illinois’s contributions to social justice and reform.

**STANDARDS**

**ELA STANDARDS**
6–12 RH and RI 1–3: Key ideas and details  
6–12 RH and RI 7–9: Integration of knowledge and ideas  
6–12 W and WHST 7–9: Research to build and present knowledge

**SOCIAL SCIENCE STANDARDS**
SS.IS.8.6–8.LC: Analyze how a problem can manifest itself and the challenges and opportunities faced by those trying to address it.  
SS.IS.8.6–8.MdC: Assess individual and collective capacities to take action to address problems and identify potential outcomes.  
SS.IS.8.6–8.MC: Apply a range of deliberative and democratic procedures to make decisions and take action in schools and community contexts.  
SS.H.1.6–8.MC: Use questions generated about individuals and groups to analyze why they, and the developments they shaped, are seen as historically significant.  
SS.H.4.6–8.MC: Organize applicable evidence into a coherent argument about the past.  
SS.IS.8.9–12: Use interdisciplinary lenses to analyze the causes and effects of and identify solutions to local, regional, or global concerns.  
SS.IS.9.9–12: Use deliberative processes and apply democratic strategies and procedures to address local, regional, or global concerns and take action in or out of school.  
SS.H.3.9–12: Evaluate the methods utilized by people and institutions to promote change.  
SS.H.7.9–12: Identify the role of individuals, groups, and institutions in people’s struggle for safety, freedom, equality, and justice.

**ACTIVITIES**

- Identify a social justice issue presented on the timeline. Use news events which have happened since to document how much progress we have (or have not) made, and speculate on some of the reasons why.  
- Review the social justice issues addressed in The Illinois Chronicles and describe which have changed and identify if any are no longer controversial. As an extension, think about new issues that have arisen in your lifetime and predict which social justice issues might capture headlines in the future.  
- What have we learned from the past based on social justice issues and how might YOU (as an individual) or ILLINOIS (as a State) make contributions? Look for community resources and groups which are currently working on a social justice issue and develop an action plan in moving the issue forward. Or, hold a mock community forum to discuss the issue across various interest groups.
Chicago hosted two World’s Fairs just 40 years apart. Both exhibitions featured technology displays and sights previously unseen, but which are still used today. The 1893 Columbian Exposition, or World’s Fair, debuted Mr. Ferris’s great wheel. The modern wheel on Chicago’s Navy Pier, just a few miles from its debut location, pays homage to the original. The 1933 Century of Progress World’s Fair brought to life “dream cars” and “homes of tomorrow” for thousands of visitors to this dynamic display of culture and technology, and homes throughout the world don features proposed in the “Rainbow City”. In addition to the two themes suggested below, consider the many STEM-based articles in The Illinois Chronicles as a snapshot of 200 years of Illinois engineering marvels.

DATE: 1893, WORLD’S COLUMBIAN EXPOSITION
ARTICLE: “A MODERN WONDER OF THE WORLD”

3–5

SCIENCE STANDARDS

3–5-ETS1-1: Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.
3–5-ETS1-2: Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
3–5-ETS1-3: Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

ACTIVITY

• Explore the engineering principles which formed the basis of the Ferris Wheel. How did Mr. Ferris engage in the design and engineering process? What trials and previous designs existed? How did he choose materials and what skills did his laborers need to execute his plan? Integrate the Arts: design a poster or advertisement encouraging fair-goers to give The Great Wheel a whirl!
DATE: 1933, A CENTURY OF PROGRESS WORLD’S FAIR
ARTICLE: “RAINBOW CITY, SHOWCASE FOR THE MODERN WORLD”

6–12

STANDARDS

SCIENCE STANDARDS

MS-ETS1-1: Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

MS-ETS1-2: Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.

MS-ETS1-3: Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.

MS-ETS1-4: Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.

SOCIAL SCIENCE STANDARDS

SS.H.1.6–8.LC: Classify series of historical events and developments as examples of change and/or continuity.

SS.H.2.9–12: Analyze change and continuity within and across historical eras.

SS.H.6.9–12: Analyze the concept and pursuit of the American Dream.

ACTIVITIES

• Evaluate which technologies showcased at the fair came into use, which did not, and why? Do you know anyone with a personal helicopter pad, for instance?

• Explore what has changed about a particular device or tool from 1933 to today. For example, what features did Cadillac unveil in 1933 and what features are they advertising in commercials and at car shows today?

• If you were to design a home (or city) of the future, what features or inventions might you dare to dream and incorporate into your design? Consider all three major design principles—aesthetics, function, and innovation—in your proposal.

• Imagine you are the lead planner in designing the next Century of Progress World’s Fair. Propose exhibits for the fair demonstrating forthcoming or new technologies.

• Invite guest speakers to illustrate how their company incorporates aesthetics, functions, and innovation into their product(s).
By our city editor
May 2, 1893

A MODERN WONDER OF THE WORLD

Chicago came of age as a great international city yesterday when the World's Fair opened to delighted crowds with magic, razzamatazz, and stunning innovations that preview the next century.

The first World's Columbian Exposition, held to celebrate the 400th anniversary of Christopher Columbus' arrival in the New World, was instantly acclaimed a “modern wonder of the age” with around 200 buildings dedicated to displays from every corner of the globe.

Under the supervision of works director Mr. Daniel Burnham, the temporary structures have been covered in plaster and painted white to gleam in the sun. This “White City” is illuminated at night to breathtaking effect by hundreds of electric lights.

There has been nothing like it seen in America. Visitors were visibly awestruck yesterday.

After the U.S. Congress authorized a world’s fair, Chicago beat a campaign by New York City to stage it. Yesterday, the fairgrounds, sited on a converted two-mile swamp on the shores of Lake Michigan, were officially opened by President Cleveland.

Their scale must be seen to be believed. Most states and 46 nations have exhibits. California’s features a knight on horseback made entirely of prunes.

There are snake-charmers, Venetian gondolas, German artillery, and even a replica Viking ship. A belly-dancer beguiled crowds yesterday in the Streets of Cairo exhibit. At least 3,000 drinking fountains have also been installed around the grounds. In Midway Plaisance stands an imaginative "Eskimaux Village," while Mrs. Bertha Palmer’s Woman’s Building is located nearby.

It is the technical innovations which stole the show yesterday, among them the first steam turbine and an electric train. Visitors also got a taste for the new snack food called “popcorn.”

Star attraction is the giant wheel, an engineering marvel and world-first, built by Mr. George W. Ferris. Immediately labeled the “Ferris wheel,” it surely rivals the Paris exposition’s Eiffel Tower.

The 264-feet-high wheel carries 36 cars, each holding up to 60 people. Its axle alone weighs 70 tons and thus ensures the wheel is strong enough to lift as many as 2,000 people at a time high above the fairgrounds.

The fair is not without its controversy. Miss Ida B. Wells, the civil rights campaigner, has arrived in Chicago to protest the exclusion of exhibits from African Americans unless approved by all-white committees. Department store owner Mr. Marshall Field has pledged he is ready to donate funds for a museum to house some of the wonderful artifacts that will be left behind when the fair closes in October.

Death of a Monster

CRAZED SERIAL killer H. H. Holmes was hanged yesterday for the murder of a longtime colleague, but investigators believe his horrendous crimes may have resulted in the deaths of dozens more victims, writes our crime correspondent, May 8, 1896.

The former medical graduate moved to Chicago, and opened a hotel in Englewood in which he built a labyrinth of rooms and stairways, some leading to nowhere.

The hotel has come to be known as “Murder Castle” after it emerged that he had been doing away with his mainly female staff and guests, often selling their body parts to medical schools to conceal the evidence.

“I was born with the devil in me,” he once said.
MASSACRE ON ST. VALENTINE’S DAY

By our crime correspondent
February 15, 1929

THE COLD-blooded murder of seven men gunned down on Chicago’s North Side yesterday morning is now believed to be the violent result of a power struggle between rival gangs for control of illegal liquor supplies in the city.

The men were shot at around 10:30 a.m. in a warehouse in the Lincoln Park neighborhood. Two of the four shooters were said to be dressed in fake police uniforms. Sub-machine guns were among the weapons used by the gangsters.

The victims are understood to include members of George “Bugs” Moran’s North Side Gang. They are believed to have been lured to the garage with the promise of an illegal shipment of whiskey.

One of the victims survived the shooting but died three hours later. He was questioned by police but refused to identify the killers. He had received no less than 14 bullet wounds. However, when asked who shot him, he replied: “No one shot me.”

The only survivor is a dog named Highball, owned by an associate of the Moran gang.

The massacre has all the hallmarks of gangster Al “Scarface” Capone (pictured above), increasingly seen as America’s Public Enemy Number 1.

Capone, who is currently in Miami, appears to have resorted to mob violence after Moran started to muscle in on his organization’s numerous criminal activities.

Police believe Moran himself was the main intended target but he was not there. He has not been seen since the shootings and may have fled the city in fear for his life. The FBI has so far been reluctant to get involved in bringing gangsters to justice but this latest outrage is certain to change all that. There are growing demands that Capone be brought down by Federal agents.

Illinoisans, meanwhile, are tiring of Prohibition, which has banned alcoholic beverages across America but also helped ruthless gangs get rich from illegal supplies.

One gang leader, Charlie Birger, was recently hanged after going to war against rivals in south Illinois. At one stage, the smuggler used armored “tanks” built from converted trucks to mount his attacks.

RAINBOW CITY, SHOWCASE FOR THE MODERN WORLD

By our technology editor
May 28, 1933

THE CENTURY of Progress International Exposition opened its gates to visitors in Chicago yesterday, delighting them with “dream cars” and “homes of tomorrow” among many futuristic exhibits.

The World’s Fair, created to mark Chicago’s first recognition as a town in 1833, is sited on over 400 acres of land along Lake Michigan’s shore.

At a spectacular opening event last night, lights were activated when the star Arcturus was detected in the sky, chosen because its rays began their journey at about the same time as Chicago’s previous World’s Fair in 1893. The fairground buildings are multi-colored to create a “Rainbow City” in contrast to 1893’s “White City.” Visitors are moved around the site in special Greyhound buses.

The fair is a showcase for the latest advances in science and technology, particularly transport. Cadillac and Lincoln are unveiling their “dream cars” while railroad companies are exhibiting the new era of streamlined trains.

The popular “homes of tomorrow” displays suggest a future of dishwashers and air conditioning. The German “Graf Zeppelin,” the world’s largest airship, is scheduled to fly over Chicago, although it can expect a mixed reception. Many are unhappy with its association with German Chancellor Herr Adolf Hitler’s controversial and brutal rise to power.
## Engineering Marvels

<table>
<thead>
<tr>
<th>1933 World’s Fair</th>
<th>Current Day</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>What types of advancements are they trying to showcase with this demonstration?</td>
<td>How have modern-day automobiles improved from the 1933 version?</td>
<td>What types of advancements do you predict automobiles will have in the future?</td>
</tr>
</tbody>
</table>
In the Land of Lincoln, you’ll find this Presidential figure around every corner. From extensive academic resources to accessible site visits, Abraham Lincoln’s physical presence in the State of Illinois presents dynamic opportunities for us to engage with this legendary figure.

**DID YOU KNOW?** The Abraham Lincoln Presidential Library and Museum offers an online collection of resources for teachers, including hands-on activities, vocabulary, research topics, critical thinking questions, and references to additional resources. Check out the website “Under His Hat” (http://underhishat.alplm.org/) for materials to accommodate classroom use at various grade levels.

**DATE: 1858**
**ARTICLE: “A HOUSE DIVIDED AGAINST ITSELF CANNOT STAND”**

**DATE: 1861**
**ARTICLE: “LINCOLN’S NEW WHISKERS”**

**DATE: 1944**
**ARTICLE: “WARTIME SPEECH FOR OUR TIMES”**

---

**K–5**

**STANDARDS**

**ELA STANDARDS**
K–5 Reading 1–3: Key ideas and details
K–5 Reading 7: Using illustrations to describe key ideas
K–5 Writing 1 and 2: Writing opinion and informational text
K–5 Writing 4–9: Produce and share information
K–5 Speaking and Listening 1: Collaborative conversations
K–5 Speaking and Listening 4–6: Presentation of knowledge and ideas

**SOCIAL SCIENCE STANDARDS**
SS.CV.1.K: Describe roles and responsibilities of people in authority.
SS.H.2.K: Explain the significance of our national holidays and the heroism and achievements of the people associated with them.
SS.H.2.1: Describe individuals and groups who have shaped a significant historical change.
SS.H.2.2: Compare individuals and groups who have shaped a significant historical change.
SS.H.2.3: Describe how significant people, events, and developments have shaped their own community and region.

SS.H.2.4: Using artifacts and primary sources, investigate how individuals contributed to the founding and development of Illinois.

**ACTIVITIES**

- **It’s All in a Hat:** Use a Lincoln hat to collect or draw artifacts, objects, and symbols that represent moments in Illinois history, taking inspiration from the timeline. To do this, have students take turns identifying a moment from the timeline and identify the significance of that event or moment. Students should then select or draw an artifact, object, or symbol to represent the moment, which can be added to the hat. This could be done at regular intervals or on a schedule.

- **Create a Lincoln Exhibition:** While learning about the life and legacy of Abraham Lincoln, have students gather or create artifacts or symbols of his Presidency and use these as the basis for curating an exhibit on Lincoln. The exhibition may include text introductions to artifacts, verbal presentations, or living museum figures all coordinated to summarize why Lincoln is one of the most memorable Presidents of all time.

- **Integrating the Arts:** Abraham Lincoln had many nicknames before, during, and after his Presidency—among them were Honest Abe, The Great Emancipator, The Ancient One, and The Rail-Splitter. Determine what events or characteristics attributed to these nicknames and present your findings in an artistic rendering, such as a drawing, painting, cartoon, sculpture, avatar, or video.

**6–12**

**STANDARDS**

**ELA STANDARDS**

6–12 RH and RI 1–3: Key ideas and details
6–12 RH and RI 7–9: Integration of knowledge and ideas
6–12 W and WHST 1 and 2: Writing argument and informational text
6–12 W 3: Writing narrative text
6–12 W and WHST 7–9: Research to build and present knowledge

**SOCIAL SCIENCE STANDARDS**

SS.IS.8.6–8.MdC: Assess individual and collective capacities to take action to address problems and identify potential outcomes.

SS.H.4.6–8.MC: Organize applicable evidence into a coherent argument about the past.

SS.H.3.9–12: Evaluate the methods utilized by people and institutions to promote change.

SS.H.7.9–12: Identify the role of individuals, groups, and institutions in people’s struggle for safety, freedom, equality, and justice.
ACTIVITIES

For older students, the complexity of Lincoln’s speeches and character can be more fully explored. Here are a few starting points to begin discussing concepts of agency, authority, and identity.

- “Translate” a section of an historical speech into contemporary language.
- Adapt the Gettysburg Address, or portions of it, to present across social media platforms.
- Extract quotes from Lincoln’s speeches to show how sound bites and info bites can be used in different contexts, by more than one party, and with divergent intentions.
- Study how Abraham Lincoln evolved politically throughout his life using primary sources, such as quotes and speeches, to note changes.
- Take a classroom vote on a controversial topic to identify a baseline. Write motivational speeches to convince your classmates to change their vote. Cast a second ballot following the presentations and evaluate what was effective in various speeches and why.
- Determine a topic which divides the country today and make suggestions on what type of leadership, actions, and persuasive techniques would be required to unite us. Present your own Plan of Action or draft your own “Gettysburg Address” to persuade the nation.
SPRINGFIELD LAWYER

Mr. Abraham Lincoln, a Republican nominee for the U.S. Senate, yesterday delivered the speech of a great statesman that will resound across America as a warning of the threat to the Union over the slavery debate.

Using words from the Bible, Mr. Lincoln made clear his opposition to expanding slavery into new U.S. territories and spoke of a looming crisis that would pass only after it has been resolved once and for all.

“A house divided against itself cannot stand. I believe this government cannot endure, permanently half slave and half free,” he said. “I do not expect that the Union to be dissolved—I do not expect the house to fall—but I do expect it will cease to be divided. It will become all one thing, or all the other.”

He added: “Either the opponents of slavery will arrest the further spread of it, and place it where the public mind shall rest in the belief that it is in course of ultimate extinction; or its advocates will push it forward, till it shall become alike lawful in all the States, old as well as new—North as well as South.”

Mr. Lincoln was, in effect, laying down a challenge to the nation: that we, its citizens, must now decide which route we are to go down. His speech, made in the Illinois State Capitol in Springfield, has been acclaimed by abolitionists and Republican supporters. Some were saying last night that Mr. Lincoln has shown he has the qualities needed to become a great U.S. President.

Reaction in the southern “Slave States” is unlikely to be positive. Some are already warning of seceding from the Union and the risk of civil war if men like Mr. Lincoln ever get to hold national office. Mr. Lincoln is due to embark on a series of debates across Illinois with U.S. Senator Stephen Douglas, the Democratic incumbent. The slavery issue is certain to be high on the agenda.

A German version of Mr. Lincoln’s speech is also to be printed in Alton for the State’s German-speaking residents.

**Mr. Lincoln’s New Whiskers**

By our politics editor
June 17, 1858

PRESIDENT-ELECT Lincoln yesterday stopped on his inaugural journey by train from Illinois to Washington, D.C. and met an old friend—a 12-year-old girl, writes our politics correspondent, February 17, 1861.

The meeting between Mr. Lincoln and Miss Grace Bedell took place in her hometown of Westfield, New York. Onlookers were surprised to hear him look for the little girl and ask for her by name.

Miss Bedell had written to Mr. Lincoln last year urging him to grow a beard. Her letter read: “I hope you won’t think me very bold to write to such a great man as you are...if you let your whiskers grow...you would look a great deal better for your face is so thin.” Mr. Lincoln wrote back that never having worn any whiskers, people might think it a “silly affectation” to start now. He signed it “Your very sincere well wisher.”

Despite his doubts, he took the advice, and grew a beard while in Springfield. At yesterday’s meeting, Mr. Lincoln stooped down and kissing Miss Bedell, said: “Gracie, look at my whiskers. I have been growing them for you!”

Mr. Lincoln is also an inventor, having a patent granted, for re-floating boats in shallow waters using his “Improved Method of Lifting Vessels over Shoals.”

**TOMB RAIDERS FOILED**

By our crime correspondent
November 8, 1876

A FIENDISH PLOT to steal the late President Lincoln’s body and ransom it for $200,000 was foiled by detectives yesterday.

Members of an Illinois gang are on the run after failing to make off with the remains of the President who was assassinated in Washington, D.C., over a decade ago. The gang traveled to Oak Ridge Cemetery in Springfield, where the President’s body is laid to rest and is now considered a shrine to liberty.

They sawed a padlock off the iron door of his tomb, pried the marble lid off his sarcophagus, and attempted to lift the coffin. The theft was thwarted when Lewis G. Swegles, an undercover secret service agent who had been unwittingly recruited by the gang, alerted detectives hiding nearby. They rushed to the tomb, guns drawn, but the robbers escaped.

Gang leader “Big Jim” Kinealy is said to have hatched the plot to steal the President’s body until $200,000 in gold was paid by the U.S. government and an imprisoned gang member freed.

Sources said last night it was not the first time Kinealy had planned such a raid. The previous attempt did not get off the ground after drunken gang members revealed details of the plot in Springfield.

The latest incident is certain to increase calls for the President’s body to be buried rather than kept in a sarcophagus.
SPRINGFIELD LAWYER

Mr. Abraham Lincoln, a Republican nominee for the U.S. Senate, yesterday delivered the speech of a great statesman that will resound across America as a warning of the threat to the Union over the slavery debate.

Using words from the Bible, Mr. Lincoln made clear his opposition to expanding slavery into new U.S. territories and spoke of a looming crisis that would pass only after it has been resolved once and for all.

“A house divided against itself cannot stand. I believe this government cannot endure, permanently half slave and half free,” he said. “I do not expect the Union to be dissolved—I do not expect the house to fall—but I do expect it will cease to be divided. It will become all one thing, or all the other.”

He added: “Either the opponents of slavery will arrest the further spread of it, and place it where the public mind shall rest in the belief that it is in course of ultimate extinction; or its advocates will push it forward, till it shall become alike lawful in all the States, old as well as new—North as well as South.”

Mr. Lincoln was, in effect, laying down a challenge to the nation: that we, its citizens, must now decide which route we are to go down. His speech, made in the Illinois State Capitol in Springfield, has been acclaimed by abolitionists and Republican supporters. Some were saying last night that Mr. Lincoln has shown he has the qualities needed to become a great U.S. President.

Reaction in the southern “Slave States” is unlikely to be positive. Some are already warning of seceding from the Union and the risk of civil war if men like Mr. Lincoln ever get to hold national office. Mr. Lincoln is due to embark on a series of debates across Illinois with U.S. Senator Stephen Douglas, the Democratic incumbent. The slavery issue is certain to be high on the agenda.

A German version of Mr. Lincoln’s speech is also to be printed in Alton for the State’s German-speaking residents.

Mr. Lincoln’s New Whiskers

PRESIDENT-ELECT Lincoln yesterday stopped on his inaugural journey by train from Illinois to Washington, D.C. and met an old friend—a 12-year-old girl, writes our politics correspondent, February 17, 1861.

The meeting between Mr. Lincoln and Miss Grace Bedell took place in her hometown of Westfield, New York. Onlookers were surprised to hear him look for the little girl and ask for her by name.

Miss Bedell had written to Mr. Lincoln last year urging him to grow a beard. Her letter read: “I hope you won’t think me very bold to write to such a great man as you are…If you let your whiskers grow…you would look a great deal better for your face is so thin.” Mr. Lincoln wrote back that never having worn any whiskers, people might think it a “silly affectation” to start now. He signed it “Your very sincere well wisher.”

Despite his doubts, he took the advice, and grew a beard while in Springfield. At yesterday’s meeting, Mr. Lincoln stooped down and kissing Miss Bedell, said: “Gracie, look at my whiskers. I have been growing them for you!”

Mr. Lincoln is also an inventor, having a patent granted, for re-floating boats in shallow waters using his “Improved Method of Lifting Vessels over Shoals.”

TOMB RAIDERS FOILED

By our crime correspondent
November 8, 1876

A FIENDISH PLOT to steal the late President Lincoln’s body and ransom it for $200,000 was foiled by detectives yesterday.

Members of an Illinois gang are on the run after failing to make off with the remains of the President who was assassinated in Washington, D.C., over a decade ago. The gang traveled to Oak Ridge Cemetery in Springfield, where the President’s body is laid to rest and is now considered a shrine to liberty.

They sawed a padlock off the iron door of his tomb, pried the marble lid off his sarcophagus, and attempted to lift the coffin. The theft was thwarted when Lewis G. Swegles, an undercover secret service agent who had been unwittingly recruited by the gang, alerted detectives hiding nearby. They rushed to the tomb, guns drawn, but the robbers escaped.

Gang leader “Big Jim” Kinealy is said to have hatched the plot to steal the President’s body until $200,000 in gold was paid by the U.S. government and an imprisoned gang member freed.

Sources said last night it was not the first time Kinealy had planned such a raid. The previous attempt did not get off the ground after drunken gang members revealed details of the plot in Springfield.

The latest incident is certain to increase calls for the President’s body to be buried rather than kept in a sarcophagus.
WARTIME SPEECH FOR OUR TIMES

YOUNGSTERS BUY A PIECE OF HISTORY TO INSPIRE LEADERS OF TODAY

By our education editor
March 25, 1944

Schoolchildren have proudly presented a rare copy of the Gettysburg Address written in President Lincoln’s own hand to Illinois State officials at a ceremony in Springfield yesterday.

One of five hand-written copies of the speech, the President completed it at the request of Mr. Edward Everett, the former U.S. Secretary of State, who then sold it to help soldiers injured in the Civil War.

Thousands of Illinois children raised $50,000 to buy the “Everett copy” which had just become available. With jars sited in classrooms for collections, they donated an average of five cents apiece, often sacrificing their allowances. Mr. Marshall Field III, the department store heir, made up the remainder by donating $10,000.

The Gettysburg Address was delivered by President Lincoln during the Civil War, at the dedication of the Soldiers’ National Cemetery in Gettysburg, Pennsylvania.

As freedom and democracy are now under threat in a world war, its inspiring words—that government “of the people, by the people, for the people, shall not perish from the earth”—are as relevant today as they were when first delivered in 1863. It seems the children of Illinois have shown that they can appreciate these fine words just as well as any adult.

HIROSHIMA ATOM BOMB DROPPED BY QUINCY PILOT

By our war correspondent
August 7, 1945

The atomic bomb that destroyed the Japanese city of Hiroshima yesterday was dropped from the B-29 Superfortress Enola Gay, piloted by Col. Paul Tibbets, born in Quincy, Illinois. The devastation caused by the single bomb called “Little Boy,” dropped by Col. Tibbets and his crew, is so severe that exact casualty figures may never be known.

It is understood tens of thousands were killed in the explosion, and many more are certain to die as a result of their wounds, starvation or the new horror of war from atomic weapons—radiation poisoning.

Many of those killed or injured are believed to be civilians, although Hiroshima had a military garrison.

The nuclear attack was so overwhelming that military chiefs believe it must surely compel Japan to surrender, which would bring to an end WWII following the collapse of Germany and Italy.

A Japanese surrender will avoid the need for Allied troops to mount what many predict would otherwise be an extremely bloody invasion of the country.

Col. Tibbets, who graduated from Alton’s Western Military Academy, is among nearly one million Illinoisans who have served during World War II, of whom 22,000 have been killed.

The bomber, Enola Gay, was named by Col. Tibbets for his mother.

Japanese Americans, released from internment camps in the Pacific Coast area, flock to wartime Chicago, and are hired by companies desperate for labor. Many return to the Pacific Coast after WWII, but the Chicago community survives to this day.
Gettysburg Address

Transcription of the standard text inscribed on the wall of the Lincoln Memorial

Transcription

Fourscore and seven years ago our fathers brought forth on this continent a new nation, conceived in liberty and dedicated to the proposition that all men are created equal. Now we are engaged in a great civil war, testing whether that nation or any nation so conceived and so dedicated can long endure. We are met on a great battlefield of that war. We have come to dedicate a portion of that field as a final resting-place for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this. But in a larger sense, we cannot dedicate, we cannot consecrate, we cannot hallow this ground. The brave men, living and dead who struggled here have consecrated it far above our poor power to add or detract. The world will little note nor long remember what we say here, but it can never forget what they did here. It is for us the living rather to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us—that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion—that we here highly resolve that these dead shall not have died in vain, that this nation under God shall have a new birth of freedom, and that government of the people, by the people, for the people shall not perish from the earth.

The ideas we have presented in this guide, combined with your diverse classroom experiences, preferred learning strategies, various disciplines, and personal creative concepts, are just what we need to make State history a dynamic and engaging area of study. We envision classrooms across the State delving into forgotten places and taking a deeper look at key figures and events throughout the school year. Consider the culmination of all these classroom explorations a celebration of our great State and your influence in creating leaders for the next 200 years!

**K–5**

**STANDARDS**

**ELA STANDARDS**
K–5 Writing 1 and 2: Writing opinion and informational text
K–5 Writing Standards 4–9: Produce and share information
K–5 Speaking and Listening 4–6: Presentation of knowledge and ideas

**SOCIAL SCIENCE STANDARDS**
SS.H.2.K: Explain the significance of our national holidays and the heroism and achievements of the people associated with them.
SS.H.2.1: Describe individuals and groups who have shaped a significant historical change.
SS.G.1.2: Construct and interpret maps and other graphic representations of both familiar and unfamiliar places.
SS.H.2.2: Compare individuals and groups who have shaped a significant historical change.
SS.H.2.3: Describe how significant people, events, and developments have shaped their own community and region.
SS.G.1.4: Construct and interpret maps of Illinois and the United States using various media.
SS.G.2.4: Analyze how the cultural and environmental characteristics of places in Illinois change over time.
ACTIVITIES

Create a birthday party atmosphere and celebrate our State with everything from facts and figures to cake and ice cream! Invite community members to engage in the celebration and learn more about the events students have explored.

- Invite key characters from *The Illinois Chronicles*, have students dress up or role play those characters and present their role in State history.
- Make a cake in the shape of our State and decorate it with symbols of our legacy.
- Create an oversized map of Illinois and highlight places of significance throughout the State as referenced in *The Illinois Chronicles* articles or timeline. Indicate the places on the map where the events took place with an image or symbol to represent the event or its significance. Be sure to include not only the locations highlighted on the back of the timeline but track other events discussed in your study of Illinois!
- Create bunting or garland decorations using key moments from the timeline on each individual flag. On one side put an image to commemorate that moment and on the other a brief description of the event and its significance. Complete and hang the bunting up in time for the day of the birthday party.
- Ask students to work in groups to summarize the six subject-area themes from the timeline (sport and adventure, conflict and tragedy, science and engineering, commerce and architecture, culture and heritage, and politics and civil rights). The groups can then create a presentation or dramatic representation that showcases the importance of those events.
- Have students create a multiple-choice quiz of 10 or so events from Illinois history. Encourage them to quiz their classmates, teachers, and parents/adults, and graph the results for display at the party. For quick reference, make sure a copy of the *The Illinois Chronicles* timeline is readily accessible—or even mounted on the classroom wall. As an added bonus, if community members join the party, test their knowledge about Illinois history, too!

6–12

STANDARDS

ELA STANDARDS
6–12 RH and RI 1–3: Key ideas and details
6–12 RH and RI 7–9: Integration of knowledge and ideas
6–12 W and WHST 1 and 2: Writing argument and informational text
6–12 W and WHST 7–9: Research to build and present knowledge

SOCIAL SCIENCE STANDARDS
SS.H.1.6–8.MdC: Analyze connections among events and developments in broader historical contexts.
SS.H.8.9–12: Analyze key historical events and contributions of individuals through a variety of perspectives, including those of historically underrepresented groups.
ACTIVITIES

Celebrate Illinois Statehood in your classroom—or even your whole school by throwing a birthday party! Invite a local government representative to come and speak to your classroom or even address the entire school!

- Have students design their own Bicentennial logo or flag. What would they include?
- Celebrate our State by researching historical anniversaries and official State events. Share informative writing and personal perspectives in a variety of ways. This could be done by creating posters, advertisements, mock-social media (fake Twitter, Facebook, Instagram) or a webpage. Share what students have created across real social media platforms.
- Create commercials/infomercials about significant contributions in Illinois history. Perform or play recordings of these advertisements at the celebration.
- In 1925, the Illinois General Assembly signed an act making the song “Illinois” (lyrics by Charles H. Chamberlain and music by Archibald Johnson), the official State song. Divide students into groups and create a new theme song for the Illinois Bicentennial, which could be performed live at a school function or recorded to share on social media.