



A.K.A. Houdini Curriculum Guide

Introduction

The *A.K.A. Houdini* Curriculum Guide was originally created in 2004 to serve as a complement to the *A.K.A. Houdini* exhibit at the History Museum at the Castle. The curriculum is geared toward students in 4th through 8th grades. Please feel free to pick and choose the activities that are appropriate for your students. This curriculum addresses Wisconsin state standards in several subject areas and attempts to integrate subjects outside the history discipline with a study of the past. It is our hope that you can use the subject of Houdini as a “hook” to engage students in an exploration of larger issues such as scientific principles involved in magic and urbanization.

To schedule a field trip and tour of the *A.K.A. Houdini* exhibit or other exhibits at the History Museum, please contact our Education and Collections Manager at erin@myhistorymuseum.org.

Contents

Introduction	I
Coming to America	2
Houdini and Advertising	3
Appleton in the 1870s	7
Child Labor in the 19th Century and in Recent History	14
Vaudeville	20
Dime Museums and Side Shows	22
The Immigrant Processing Station	24
Invention Challenge	31
Problem Solving – Dime Museum Harry	34
The Psychology of Magic	39
The Immigrant’s Point of View	41
The Industrial Revolution	47
The Strong Man	51
Urbanization	56
What is Illusion?	59
Houdini on Tour – A Lesson in Geography	64

Coming to America

Wisconsin State Curriculum Alignment:

English Language Arts B.4.1 – Create or produce writing to communicate with different audiences for a variety of purposes.

- Write expressive pieces in response to reading, viewing, and life experiences (narratives, reflections, and letters) employing descriptive detail and a personal voice.

Activities/Lessons:

- Activity/Lesson: An Immigrant's Journal
 - Materials:
 - Paper
 - Pen or Pencil

Background Information/History:

For many immigrants, just the process of getting to America was an enormous undertaking. Travel was expensive, so families saved for a long time to be able to buy a ticket. Sometimes, families would come in waves, meaning that someone – the father or older children – would leave first. After settling in America and finding a job, they would save as much money as they could, sending it back home so that the rest of the family could come and join them.

Immigrants usually traveled in the steerage of the ship. The steerage was in the deepest part of the ship, where it was dark and bad smelling because there was no fresh air. In the steerage, immigrants slept in narrow bunks stacked three high. There were no showers or even a table off which to eat. Instead, food was served from huge kettles. Each family was issued a dinner pail out of which everyone ate.

Activity/Lesson 1: An Immigrant's Journal

This activity is simply a sensory exercise.

Close your eyes and imagine you are traveling to America. Though it is the middle of the day, you are stuck in the dark steerage of the ship because it is raining outside. Feel the motion of the ship as it crashes over the waves. It is dark and you cannot see to play. With all the other immigrant passengers also stuck down there with you, there is little room to move around. Smell the stench of more than one hundred people who haven't bathed in weeks crowded around you. There is also the strong odor of the chamber pots, your "indoor bathrooms." Babies are screaming, hungry and restless. Next to you, someone coughs a rattling cough – he has become ill during the journey.

Use descriptive words to write a letter to a friend back home telling him or her what it is like to be on the ship. Using your five senses – sight, smell, taste, touch, and sound – to explain your experience of the journey.

Houdini and Advertising

Wisconsin State Curriculum Alignment:

Marketing D.8.5 – Give examples to show how media may influence the behavior and decision-making of individuals and groups.

Social Studies E.4.10 – Give examples and explain how the media may influence opinions, choices, and decisions.

English Language Arts B.4.1 – Create or produce writing to communicate with different audiences for a variety of purposes.

- Write nonfiction and technical pieces (summaries, messages, informational essays, basic directions, instructions, simple reports) that convey essential details and facts and provide accurate representations of events and sequences.

Art E.4.3 – Communicate basic ideas by producing popular images and objects, such as folk art, traditional arts and crafts, popular arts, mass media, and consumer products.

Art F.4.2 – Know that art techniques are used in mass media.

Art F.8.3 – Interpret visual messages in advertisements, news and entertainment programs.

Activities/Lessons:

- Activity/Lesson 1: Newspaper Article
 - Materials needed:
 - Lined paper
 - Pen or Pencil
- Activity/Lesson 2: Advertising Poster
 - Materials needed:
 - Pen or Pencil
 - Printed Worksheet

Background/History:

Houdini was a genius at self-promotion, meaning he knew how to get people to notice him, getting publicity for his shows and making a name for himself with the public. Early on in his career, Houdini would advertise his upcoming performances at a local theater by challenging local police officials to lock him up in their most secure handcuffs and jail cells. Houdini always escaped within minutes. This surprised, and sometimes embarrassed the police officials, but it also made a good story for the newspaper to report. In this way, Houdini got free advertising. The jail break stunt almost always made the local news and resulted in big ticket sales for Houdini's performances.



1: Houdini performs his upside-down straight jacket escape above a street full of onlookers. Radner Collection at the History Museum at the Castle.

Later, Houdini used his straight jacket (a garment that was used in the late 1800s and early 1900s to restrain people considered to be “criminally” insane, a danger to themselves and others) escape to promote his shows. He took the escape outside and attracted crowds as large as 80,000 people. The crowds packed the streets, blocking traffic, and watched from windows in the vicinity as Houdini's assistants hoisted him up

to the top of a skyscraper or newspaper building. Dangling upside down above the thousands watching, Houdini would escape from his straight jacket. The struggle always made the evening newspaper.

Houdini also advertised his shows by putting posters and flyers up around town and calling the press to previews. Houdini would promise to escape from a packing crate secured with locks and chains. But that was not all, the crate would be dropped into the local river, and Houdini had to escape before drowning. As with his upside-down straight jacket escapes, thousands of people would gather to watch this free performance. The newspaper covered the story, and Houdini promised more impressive tricks at his shows at the local theater. People wondering what other “miracles” Houdini could perform would buy a ticket to see for themselves.

Activity/Lesson 1: Newspaper Article

Click on this link (<https://www.youtube.com/watch?v=3r8qr-p9z5g>) to watch a video of Houdini performing his upside-down straight jacket escape above a crowded street.

Pretend you are a newspaper reporter writing an article for the *Our Town Newspaper*. What would you report about Houdini and his “publicity stunt”? Would your report mention Houdini’s upcoming performance at the local theater? Would the article encourage the public to buy tickets to that show? Why or why not? How did the crowd react to his stunt? What sounds did you hear? What do you think Houdini was thinking about during his stunt?

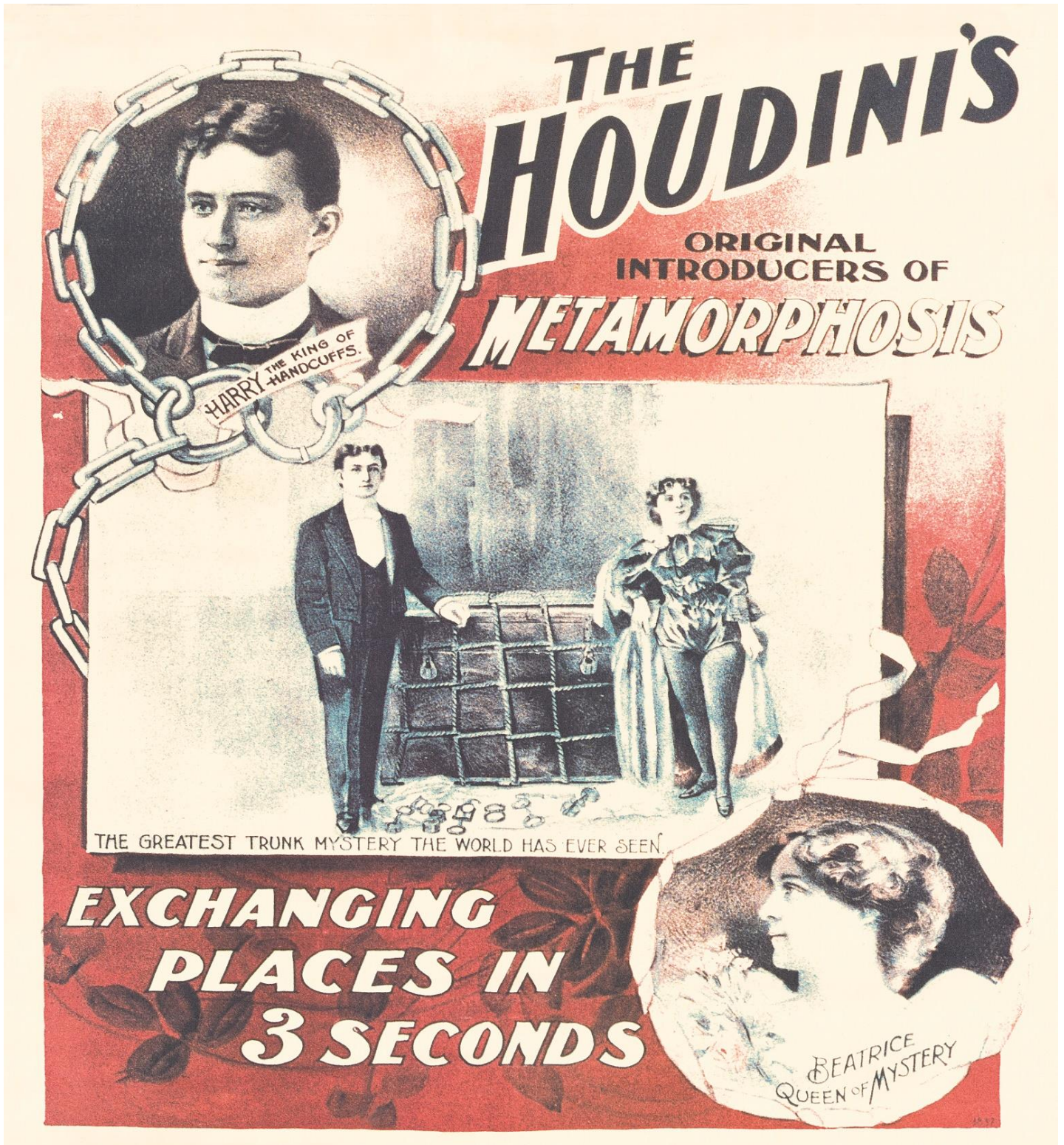
Write a short article (approximately 1 page) that addresses the above questions.

Remember, a good newspaper reporter answers the following questions in his or her stories:

- Who?
- What?
- When?
- Where?
- Why?
- How?

Activity/Lesson 2: Advertising Poster

Look at this advertising poster for Houdini and answer the following questions.



Name: _____ Date: _____

1. What are the main colors used in the poster? What feelings do the colors make you have? Are they exciting, fun, drab, dreary, sad, upsetting, interesting, etc.?
2. Does the poster present its message mostly with pictures, mostly in words, or with both?
3. Who was the audience for the poster? (Who would see it?)
4. What do you think Houdini hoped the poster would do?
5. Do you think the poster was effective? Did it do the job it was intended to do? What made it a good poster or what made it an ineffective poster?

Draw your own advertising poster for Houdini. Use colors you believe will attract and interest people and may wish to use symbols such as broken chains or open locks to demonstrate Houdini's talent as an escape artist. Remember, the purpose of the poster would be to get people to buy tickets to Houdini's shows.

Appleton in the 1870s

Wisconsin State Curriculum Alignment:

Social Studies A.4.5 – Use atlases, databases, grid systems, charts, graphs, and maps to gather information about the local community, Wisconsin, the United States, and the world.

Social Studies B.8.1 – Interpret the past using a variety of sources, such as biographies, diaries, journals, artifacts, eyewitness interviews, and other primary source materials, and evaluate the credibility of sources used.

Social Studies B.8.4 – Compare and contrast changes in contemporary life with life in the past by looking at social, economic, political roles played by individuals and groups.

Social Studies D.4.3 – Identify local goods and services that are part of the global economy and explain their use in Wisconsin.

English Language Arts A.4.3 – Read and discuss literary and nonliterary texts in order to understand the human experience.

- Identify and summarize main ideas and key points from literature, informational texts, and other print and non-print sources.

English Language Arts E.4.3 – Create products appropriate to audience and purpose
Create simple advertising messages and graphics appropriate for familiar media.

Activities/Lessons:

- Activity/Lesson 1: Appleton in the 1870s – City Directory
 - Materials needed:
 - Pen or Pencil
 - Printed Worksheet
- Activity/Lesson 2: Appleton in the 1870s – Bird's Eye View Map
 - Materials needed:
 - Pen or Pencil
 - Printed Worksheet
- Activity/Lesson 3: Appleton in the 1870s – Create a Tourism Brochure
 - Materials:
 - Digital method:
 - Computer or tablet
 - Program such as Microsoft Publisher
 - Paper method:
 - 1 piece of computer paper, folded into thirds to look like a brochure
 - Colored Pencils or Markers

Background/History:

Houdini came to Appleton in 1878. He arrived with his mother and brothers to join his father, Mayer Samuel Weiss, who had already emigrated from Hungary and found a job as rabbi of Appleton's Jewish congregation. Houdini lived in Appleton for only four years, however, during that short time, much was happening in this little town.

In 1856, workers completed construction of the Fox Canal. This canal allowed ships to travel the length of the Fox River from Green Bay to Lake Winnebago. Locks raised or lowered the water level so that boats could safely and easily pass over rapids or falls. The Canal increased travel and commerce (the transportation of goods to market) and opened the Fox Cities for growth.

Also in the mid 1850s, the lumbering industry became very big in Wisconsin. Lumberjacks worked tirelessly to harvest lumber from Wisconsin forests. After processing at a sawmill, the lumber was then transported via the Fox Canal and connecting waterways to destinations like Chicago where it was used to build homes and businesses. In fact, the loggers cut so much lumber that by 1890 all the virgin pine in Wisconsin (except for that on the Menominee Reservation) was gone.

Finally, the 1850s and 1860s were a time when Wisconsin wheat farmers faced a crisis. Before these times, Wisconsin farmers grew a lot of wheat. However, as settlers moved farther west, they discovered that the Plains states – like Nebraska, North and South Dakota – provided a better environment for growing wheat. As a result, wheat farming moved farther west and the grist mills used for grinding wheat into flour were converted into paper mills. With the resources of water power from the Fox River and wood from Wisconsin forests, the Fox Cities seemed the perfect place for the papermaking industry to take root.

The following excerpt is from the 1874 Appleton City Directory. It will be useful in lessons 1 and 3.

In our review of the Appleton of today, we shall speak first of all of the water-power. The Fox River is almost *unparalleled* for the amount of its water-power within so short a distance, and so perfectly available . . .

This *immense* power is nature's great gift to Appleton . . . *capable* of yielding millions of dollars of yearly income . . . The growth of the city has been steady, rapid and healthful. [The water power now runs] two large wood pulp mills, three saw mills, four flouring and *grist mills*, two *foundries* and machine shops, three hub and spoke factories, two *tanneries*, one chair and bedstead factory, one pump factory, one *sash*, door and blind factory, one paper mill, one blast furnace, and two *planing mills* . . .

Such a thing as a vacant store is *scarcely* known . . . The retail trade of the city is very large . . . Here the farmer finds ready sale for everything that his farm produces, and in return can purchase anything his heart desires . . . There are more than one hundred places of business . . .

[Lawrence University's] over 400 boys and girls yearly receive *sound* and thorough instruction . . . Next in importance stands the Appleton Collegiate Institute . . . It possesses a fine school property, and, under a very *competent* faculty of teachers, is likely to be a success. The public school system is advancing towards perfection, although so rapid is the growth of the population that it is with difficulty that school room can be provided for all the scholars. Each ward has its school-house, and the course of instruction is very thoroughly graded. What Appleton now needs, to complete this system, is a high-school . . . [I]t is *probable* that, in a few years, Appleton will possess a high-school, equal in all *respects* to those of her sister cities.

In a moral and social point of view Appleton has always held a first rank. The first settlers were people of more than ordinary intelligence, and with *settled religious habits*, and they have been followed by a better class than usually falls to the lot of new places, so that today more people of *refinement* and culture can be found in Appleton than in any other city of equal size in the State. Like the great majority of Wisconsin towns the foreign element constitutes a large part of the population . . . The foreign population is at this time greater than the American; the total population being about 7,000 . . .

In 1860 the Chicago and Northwestern Railroad was *extended* to Appleton and Green Bay . . . In 1872 a railway was opened to Manitowoc, but the station being placed so far from the city, it has

not as yet proved much benefit. The Milwaukee and Northern Railway, having laid its track to Menasha, *proposed* to extend the same to the water-power at Appleton, if the city would aid them. This aid the city willingly granted, but for some reason, the track has not yet been laid.

Here we must leave our brief *resume* of the past history and present growth of Appleton, leaving to some future historian to carry on the work and tell of the greater things to come. Perhaps he will look with *contempt* upon our *boastfulness* over the present things, but however great Appleton may become in the future, no one can view with contempt the scene that meets our eye this bright May morning.

1. After reading the excerpt from the 1874 City Directory, create a list of the features of the city about which the author writes.
2. According to the author, how does Appleton in the 1870s compare with other cities of the day? Cite evidence to support your answer.
3. Do you think this description of the city would encourage people to settle in Appleton? Why or why not?
4. Does the City Directory's description mention any negative characteristics of the city of Appleton? Why do you suppose this is? Consider the description provided.
5. Can you imagine any negatives that could accompany any of the positive features mentioned? If so, list them. The description says that a high school will be built soon. That means that without a high school, the education of most children stopped around the seventh grade.

Activity/Lesson 2: Appleton in the 1870s – Bird’s Eye View Map

Look at the 1874 Bird’s Eye View map of Appleton.

1. Can you find any of the industries, businesses, or educational institutions mentioned in the City Directory description?
2. Can you see any other streets or landmarks familiar to you today?
3. Choose a block of Downtown College Ave. or another area of the city (such as your neighborhood) of which to draw a modern-day Bird’s Eye View map. Use a separate sheet of paper.
4. The 1874 map provided names of land owners or business owners, and it served as a record of the community. Can you imagine a public map showing that information today? Why or why not?
5. Are you able to provide that information on your Bird’s Eye View map drawing? If not, what does that say about our community? Is it a good or a bad thing?



Activity/Lesson 3: Appleton in the 1870s – Create a Tourism Brochure

Create a brochure promoting Appleton as a good place to live. Choose some of the qualities mentioned in the City Directory's description of the city. Draw pictures, take pictures around the city, or find pictures online to illustrate these features and create a slogan that you think will draw people to Appleton. Your brochure can also include short descriptions of the city's features you are highlighting.

Glossary

Unparalleled – Unequalled

Immense – Huge, enormous

Capable – Able to

Grist mills – Mills that grind grains into flour

Foundries – Factories where metal is melted and poured into molds

Tanneries – Leatherworking factories

Sash – The frame of a door or window

Planing mills – A mill where lumber is made smooth and level

Scarcely – Hardly

Sound – Complete

Competent – Capable

Probable – Likely

Respects – Ways, manners

Settled religious habits – In other words, the settlers were religious people. They probably attended church or synagogue regularly.

Refinement – Good manners and good taste

Extended – Added on to, lengthened

Proposed – Suggested

Resume – Summary

Contempt – An attitude that someone or something is inferior or worthless

Boastfulness – The act of being full of pride, bragging

Child Labor in the 19th Century and in Recent History

Wisconsin State Curriculum Alignment:

Social Studies B.4.1 – Identify and examine various sources of information that are used for constructing an understanding of the past, such as artifacts, documents, letters, diaries, maps, textbooks, photos, paintings, architecture, oral presentations, graphs, and charts.

Social Studies E.4.6 – Give examples of group and institutional influences such as laws, rules, and peer pressure on people, events, and culture.

Family and Consumer Education A.1 – Identify several contributions the family makes in meeting family members' needs for food, clothing, shelter, and economic resources; encouraging development of all family members throughout life; and taking action to improve conditions in the home, workplace, neighborhood, community, and world.

English Language Arts F.4.1 – Conduct research and inquiry on self-selected or assigned topics, issues, or problems and use an appropriate form to communicate their findings

- Propose research by formulating initial questions, narrowing the focus of a topic, identifying prior knowledge, and developing a basic plan for gathering information.
- Conduct research by identifying, locating, exploring, and effectively using multiple sources of information appropriate to the inquiry, including print, non print, and electronic sources.

Activities/Lessons:

- Activity/Lesson 1: Child Labor in the 19th century
 - Materials needed:
 - Pen or Pencil
 - Printed Worksheet
- Activity/Lesson 2: Child Labor in Recent History
 - Materials needed:
 - Pen or Pencil
 - Printed Worksheet
- Activity/Lesson 3: Child Labor Today
 - Materials needed:
 - Research materials such as books, photographs, or the internet
 - Computer (optional, if you want them to do online research and describe their findings on the computer)
 - Pen or Pencil
 - Paper

Background/History:

Because Houdini's family struggled to make ends meet, Houdini helped out by doing odd jobs, such as selling newspapers, shining shoes, and working in factories. Houdini worked long hours, even as a young child, which meant that he did not spend much time in school. Houdini was not alone as a child laborer. Through the 1800s and into the early 1900s, child labor was not at all uncommon, especially for immigrant children whose families were new to life in the United States and were often among the poorest city-dwellers. What kinds of jobs did child laborers have? What were the factories or "sweat shops" where they worked like? Study the picture below to get a sense of the life of a child laborer.

Activity/Lesson 1: Child Labor in the 19th Century



Teenage sweat shop workers cutting neck ties. Houdini also worked in the sweat shops as a neck tie cutter.

Study the photograph for a couple of minutes to form an overall impression of it.

Use the chart below to list people, objects, and activities in the photograph then answer the questions.

<u>People</u>	<u>Objects</u>	<u>Activities</u>

1. Do you think that this picture was taken in a large factory or in a small “sweat shop?” Cite evidence to support your answer.
2. What kind of working conditions do you note in this photo? List three things about the conditions pictured here.
3. What about the work might be difficult?
4. Do you think that these teenagers attend school? Explain.
5. In 1916, after this photo was taken, the Keating-Owen Child Labor Act placed restrictions on the employment of children. This act stated that children must be sixteen years old in order to work in a mine or quarry and fourteen years old in order to work in a mill, cannery, workshop, factory, or manufacturing establishment. It also said that children between the ages of 14 and 16 working in mills, canneries, workshops, factories, or manufacturing establishments could not work more than eight hours a day or more than six days a week. They also could not work between 7 p.m. and 6 a.m. How do you think that the Keating-Owen Child Labor Act might have changed the lives of these teenagers?

Activity/Lesson 2: Child Labor In Recent History

Read the WGBA-TV news story about child labor at Taco Bell reprinted below:

(WLUK) Tuesday, January 21st 2020 – The owner of more than 40 Wisconsin fast food restaurants is being fined for child labor violations.

Manna Inc. is a Kentucky-based company franchisee of Wendy's and Fazoli's stores. The [U.S. Department of Labor says](#) 14- and 15-year-old employees at some of the company's locations worked outside of legally approved hours. Restaurants in Green Bay, Ashwaubenon, Appleton, Fond du Lac, Manitowoc and Sheboygan have all been cited in this investigation.

State labor leaders say the laws should be strictly enforced to protect children. "Child labor laws are very similar in Wisconsin to the federal laws," said Jim Chiolino of the Wisconsin Department of Workforce Development. "Basically, we set some limits on hours that children under 16 can work and then there are hazardous types of work that minors would not be able to do those types of work."

Teens ages 14 and 15 are only allowed to work 3 hours on school days between 7 a.m. and 7 p.m., and no more than eight hours on non-school days.

"The hour limitations are meant to allow students to succeed in school and we don't want kids to be exploited," said Chiolino.

The company is now required to pay \$157,114 in fines.¹

1. What is the date of this article?
2. What are the accusations against Manna Inc?
3. What is Manna Inc's relationship to Wendy's and Fazoli's?

¹ Amber Luckett, "Owner of Area Restaurants Fined for Violating Child Labor Laws," Fox 11 News, January 21, 2020, <https://fox11online.com/news/business/owner-of-area-restaurants-fined-for-violating-child-labor-laws>

4. What does the author of the article claim the restaurants did to violate the law?
5. What questions does this article raise for you? Where could you look for the answers?
6. Are you aware of any other examples of child labor law violations? If so, describe the case.
7. What might happen if there was no child labor legislation? How might child labor affect a boy or girl's life – their education, family relationships, relationships with friends, etc.?

Activity/Lesson 3: Child Labor Today

There are nations, such as India, that rely heavily on child labor.

1. Using the internet, books, and documents such as photographs, investigate the problem of child labor in India or another country (including the United States).
2. Describe the problem and propose possible solutions. Look into the ways that children are empowering themselves to make a change, as in the Indian children's union, Bhima Sangha, a union of, by, and for working children.

Vaudeville

Wisconsin State Curriculum Alignment:

Theater E.4.4 – Create publicity for a dramatic presentation

Theater E.4.6 – Rehearse and perform a scene or play for peers and invited guests.

Social Studies B.4.1 – Identify and examine various sources of information that are used for constructing an understanding of the past, such as artifacts, documents, letters, diaries, maps, textbooks, photos, paintings, architecture, oral presentations, graphs, and charts.

Social Studies B.4.7 – Identify and describe important events and famous people in Wisconsin and United States History.

Activities/Lessons:

- Activity/Lesson: Classroom Vaudeville Show
 - Materials needed:
 - Props students may need for their performances

Background/History:

While playing at the Palmgarden Beer Hall in St. Paul, Minnesota, Houdini and his wife were discovered by a man named Martin Beck. Beck was the owner of several Vaudeville theaters. Vaudeville was a popular form of entertainment in the mid-1800s through the 1920s. Although it seems strange to us today, dime museums and some other theaters allowed customers to smoke and drink during the show. Vaudeville theaters did not permit such behavior. They tried to be respectable. They also did not allow the use of vulgarity – swearing, or distasteful material, in the performers’ acts. Vaudeville shows were for a family audience. Like dime museums, vaudeville shows were made up of a variety of acts (kind of like a talent show). In fact, a normal vaudeville show included eight to ten acts and lasted for three hours. The 10-30 minute acts might include singers, dancers, comedians, strong men, actors, musicians, and magicians.

Teachers may wish to check out some vaudeville acts on YouTube. Some vaudevillians used racial and ethnic “jokes” in their routines and you will want to determine which acts are appropriate for your class.

Activity/Lesson: Classroom Vaudeville Show

Help your students to organize a talent or vaudeville show. Students who feel comfortable can demonstrate a variety of talents – singing (or lip-syncing), dancing, comedy, doing impressions, playing an instrument, etc.

1. Collect the names of students participating in the talent show. Ask them to share with the class what their talent will be. As a class, come up with slogans for the performers as shown above (e.g. “Masters of the Xylophone” or “The Smartest Simians . . . Not ‘Among the Best’ but Actually ‘The Very Best’.”)
2. After coming up with these slogans together, have each student use them to create a playbill for their variety show. On our playbill, Houdini appears as the “headliner,” meaning he got “top billing” (his name was the biggest on the playbill.) Students can use the name of their own act as the headliner or choose to headline a classmate’s act if they are not entered in the talent show.
3. Students should observe the same rules as were observed in vaudeville theaters – performers should make sure that their acts are in “good taste” – in other words, student comedians should not make jokes about their classmates, and songs should not include any swearing, etc. The time for each act should be limited by the teacher (in vaudeville acts lasted 10-30 minutes). The teacher may want to limit performances to 3 minutes or so.

Online Variation:

- Have students make a YouTube playlist of their acts.
- Have students each make a 20-second TikTok
- Have students upload their act to another form of social media and make a hashtag so all of their performances go to one spot.

Dime Museums and Side Shows

Wisconsin State Curriculum Alignment:

Health F.4.3 – Describe and demonstrate ways to communicate care, consideration, and respect for themselves and others

Health F.4.4 – Describe and demonstrate attentive-listening skills to build and maintain healthy relationships

Social Studies E.4.9 – Explain how people learn about others who are different from themselves

Activities/Lessons:

- Activity/Lesson: Discussion
 - Materials (optional):
 - Whiteboard and marker (if you want to make a list, bubble diagram, etc. during the discussion)

Background/History:

Before Houdini became famous, he performed his magic for the “lowest rung” of the entertainment industry: circuses, medicine and burlesque shows, and dime museums. These were not seen as respectable forms of entertainment by the middle and upper classes, so they catered to the working classes. This meant that admission prices were low, and in some cases so was the quality of the act.

Houdini spent a lot of time performing in dime museums. These were theater-museums that charged 10¢ admission (less than \$3 today). Early dime museums exhibited works of art and natural wonders, but by the 1880s, dime museums also relied on live shows to entertain the audiences. They created a circus-like atmosphere with what amounted to “side shows.” In other words, professional showmen like P.T. Barnum (of the Barnum and Bailey Circus) put people who had unusual talents or physical features on exhibit and charged admission for the public to see what they called “freaks and geeks.”

Today, the term “freaks” is not seen as a kind or appropriate word to use, but in Houdini’s day, many people used this word when talking about a person who had a physical disability or abnormality. For example, a person born without arms, who used their feet to do the things others would usually do with hands, might be termed a “freak.” “Geeks,” another term seen as offensive today, described performers who did not have a physical disability but had an unusual talent, like a snake charmer. Today we know that it is offensive to single people out with disabilities or unusual characteristics as “human curiosities.” Just because someone is different from you does not make gawking at them right, and it certainly doesn’t mean that they are any less intelligent, sensitive, or talented than you may be.

We would say that to single someone out as a “freak” or “geek” and to put him or her on display is wrong, but there were some advantages for side show performers of Houdini’s era. First, side show performers (“freaks”) were often well-paid, better than the “geeks” or other dime museum variety performers like magicians, or singers and dancers. Working in a side show provided a job opportunity for people with disabilities at a time when there weren’t many jobs open for them. The pay helped them to support their families and even made some famous side show performers rich. One example is Tom Thumb, a man who had a medical condition known as dwarfism that prevented him from growing more than 25 inches tall. With P.T. Barnum promoting him, Tom Thumb became an international star, rich and famous.

Houdini became close friends with many side show performers and came to appreciate the differing abilities that we all have. According to one author, “[Houdini] did enjoy knowing the freaks. They were the

museum stars, capable of drawing large crowds and matching salaries. Harry worked with and befriended Count Orloff, the atrophied “Human Window Pane” (“You Can See His Heart Beat! You Can See His Blood Circulate!”), who gave him a picture and autograph – “To my friend Houdinis [sic].” He also got to know Unthan, the armless wonder who could play the violin with his toes, and Thardo, a beautiful woman who submitted herself to repeated rattlesnake bites . . . He corresponded and kept in touch and developed long term friendships with them.” (Silverman, p.11)

Activity/Lesson: Discussion

Since the time Houdini performed alongside side-show performers, people have learned a lot about being sensitive to people who are different from themselves. With your class, hold a think-aloud discussion about what it means to be sensitive to other people and treat them with respect. You may want to record your class’s responses using a bubble diagram. When you have completed your brainstorming, look over the suggestions below on “disability etiquette” given by the Eastern Paralyzed Veterans Association. These suggestions can help us all to be better friends.

1. Say “person with a disability” rather than “disabled person.” In this way you put the person first. If you know the specific disability, such as cerebral palsy, you can say “person with cerebral palsy.” If you’re not sure what words to use, just ask. Try not to use words that are outdated, like “handicapped” or “crippled.”
2. Ask Before You Help – Don’t assume that a person with a disability always needs help. Often people with disabilities can get around just fine and they appreciate being treated like independent people. If it seems like someone needs help, ask him or her before helping. If he or she says yes, ask how you can help before acting.
3. Think Before You Speak – Always speak directly to a person with a disability. Don’t try to communicate with him or her through someone else, like a companion, aide, or sign language interpreter. Just talk to people with disabilities as you would with anybody else.
4. Don’t Make Assumptions – People with disabilities know best what they can and cannot do. Don’t make decisions for them about participating in activities. In other words, don’t automatically exclude a friend with a disability because you think that he or she can’t participate. Let your friend judge for himself what he can and can’t do.
5. Wheelchair users are people, not equipment. Don’t ask a wheelchair user to hold your coat; they are not a coat rack. Finally, don’t push or touch a person’s wheelchair. It is part of his or her personal space. When speaking to a wheelchair user, grab a chair and sit at their level.
6. When you approach someone who is blind, identify yourself before making physical contact. Tell him or her your name and role (like “Hi, it’s Joe, your classmate”) if appropriate. You may help a person who is blind by offering to read written information to him or her.
7. People who are blind use their arms for balance, so offer your arm – don’t grab – if he or she needs guidance. If the person has a guide dog, walk on the side opposite the dog. As you are walking, describe the setting, noting any obstacles, such as stairs or a big crack in the sidewalk. Don’t touch the person’s cane or guide dog. The dog is working and needs to concentrate, and the cane is a part of the individual’s personal space.
8. Before speaking to a person who is deaf or hard of hearing, make sure that you have his or her attention and that he or she can clearly see your mouth. This will help him or her to read your lips if necessary. Rephrase, rather than repeat, sentences that the person doesn’t understand. Speak clearly and avoid chewing gum.
9. Remember – people with disabilities are individuals with families, jobs, hobbies, likes and dislikes, and problems and joys.

The Immigrant Processing Station

Wisconsin State Curriculum Alignment:

English Language Arts A.4.1 – Use effective reading strategies to achieve their purposes in reading. Discern how written texts and accompanying illustrations connect to convey meaning.

English Language Arts A.4.3 – Read and discuss literary and non literary texts in order to understand human experience.

- Identify and summarize main ideas and key points from literature, informational texts, and other print and non-print sources.

English Language Arts A.4.4 – Read to acquire information.

- Summarize key details of informational texts, connecting new information to prior knowledge.

Social Studies B.4.1 – Identify and examine various sources of information that are used for constructing an understanding of the past, such as artifacts, documents, letters, diaries, maps, textbooks, photos, paintings, architecture, oral presentations, graphs, and charts.

Social Studies B.4.3 – Examine biographies, stories, narratives, and folk tales to understand the lives of ordinary and extraordinary people, place them in time and context, and explain their relationship to important historic events.

Activities/Lessons:

- Activity/Lesson: The Immigrant Processing Station Worksheet
 - Materials needed:
 - Pen or Pencil
 - Printed worksheet
 - Image of Immigrants Landing at Castle Garden in 1878 (optional)

Background/History:

Many immigrants started their life in America in New York City. There were other ports where immigrant ships docked – ports like San Francisco, California and Charleston, South Carolina, but New York City stations processed a significant number of immigrants coming to America in the 19th and early 20th centuries.

In 1855, the first central immigrant processing station in New York was established at Castle Garden. Located at the southern point of Manhattan Island, the building had once been used as a fort and later as a concert hall and tea garden. In 1890, Ellis Island replaced Castle Garden as New York's official Immigrant entry point.

It was at Castle Garden that immigrants officially entered the United States. There, they were questioned and inspected. The government wanted to make sure that people with contagious diseases or with no money and little hope of finding a job did not enter the country. In this way, the government hoped to minimize the number of people depending on charity to survive and to prevent the spread of diseases among Americans. The government also collected information about immigrants at the processing centers. This helped the government to keep track of who entered the country, where they came from, and what their occupations were. Ehrich Weiss, later known as Houdini, entered the country at Castle Garden as a four-year old boy in 1878.

Activity/Lesson: The Immigrant Processing Station

Read the following excerpts from an article that appeared in an 1870 *Harper's Weekly Magazine*. The author describes the arrival of new immigrants at Castle Garden and their processing there.

The steamer Holland, from Liverpool, had just arrived, and the steerage passengers were being landed. It was a *motley*, interesting *throng*. Slowly, one by one, the new-comers passed the two officers whose duty it is to register every immigrant's name, birthplace, and *destination* in large *folios* – a work that is often rather more difficult than it would first appear to be. In the first place, the officer in charge must be able to speak and understand nearly every language under the sun. This, however, can be learned and mastered; but then arises a second difficulty – the remarkable *want of intelligence* and the constantly *recurring misapprehension* shown by some of the passengers . . .

On they passed, one by one, in single file, till a few steps farther down they came to the desk of the so-called 'booker,' a clerk of the Railway Association, whose duty it is to *ascertain* the destination of each passenger, and *furnish him with* a printed slip, *upon which this is set forth, with the number of tickets wanted, and their cost in currency*. Having received this, the passenger is passed over to the railway counter; where, if he so desires, he purchases his ticket . . .

[He] has probably received a letter addressed to him at the Garden . . . or perhaps he desires to announce by letter his safe arrival at New York to friends far away. If so, he will find a clerk at his . . . desk, ready to write for him and forward his letter free of charge. If there is a letter for him, his name is called out loudly . . . If there is money for him, it is paid him *promptly*, or a ticket is purchased for part of it, if the sender so desires . . . If . . . he feels faint and hungry, then there is a restaurant over in the corner . . . And if he, finally, wants a *thorough ablution* before he starts for his new Western home, then there is the washroom already mentioned, where cold water, *stone troughs*, and fresh towels invite him to a bath and a change of *linen* . . .

Outside on the dock, where the passengers are landed, are the baggage-room and scales, where his boxes and '*kistes*' are weighed and checked according to his ticket . . . [At the Custom-house,] there is one lady-inspector, whose duty it is to examine the dresses of suspicious-looking female immigrants; and often she *makes a rich harvest of* laces, pieces of velvet or silk, jewelry, or the like, that is *concealed* upon the person in the most *ingenious* manner . . .

The Board of Commissioners own on Ward's Island (a little island in the East River, about five miles from the heart of New York) an immigrant refuge and hospital, both always *densely peopled*. Here, immigrants who are without *means of subsistence* are kept and taken care of at the expense of the Board, until such time as assistance may come from their friends in the shape of money or tickets, or they can be *disposed of* as laborers . . . During 1869 there were admitted on the island 11,471 sick or *destitute* immigrants, 439 children were born, and 11,356 passengers discharged during the same period. On December 31, 1869, there remained in the institution 1959 *souls*.

On entering the Ward's Island department we pass through the offices set aside for the *reception* of immigrants by their friends . . . When you find that [your friend] has arrived, you go down to Castle Garden to this office, to which there is a separate entrance from the Battery, and there you give to the clerk in charge the name of the passenger you are expecting. This will be called out inside the *rotunda*, and if she has been on board, she will be sent to you, *when there will be any quantity of questions to put and answers to make*. It certainly is interesting to witness these meetings, as I did. Here is the name of a *comely* Irish girl called out, she enters blushing, and is the next moment in the arms of her faithful sweet-heart, who left her home in Ireland three years ago, and has now sent

for her to make her his bride. There is kissing and crying and squeezing, and applause from the bystanders, who for the moment forget that they themselves in a few minutes will probably do the same sort of thing . . . Father and son, sister and brother, meet here in *fond embraces*, with tears of joy, after years of absence. What shaking of hands, and *assurances* of love, and *inquiries* for those dear to the heart, that are still thousands of miles away!

Opposite this building is located the so-called Labor Exchange . . . Not only immigrants, but whoever else wants work, can apply here and will *generally* succeed in finding *an employer*. Farm-hands and mechanics have the best chance, and there are always a number of them to be found there, mostly *raw hands*. Miners from Wales and other places are quite a specialty, and are always in demand. Weavers seem also to find *ready employment*. Next come laborers on railroads, farm-hands, and gardeners. There is but a poor chance for office clerks and other *nondescripts*. Servant girls form a great *proportion* of the work-seekers . . .

In 1869 situations were obtained for no less than 11,673 house servants, 438 cooks, laundresses, etc.; and, of the male branch, for 17,250 agricultural and unskilled laborers, and 5594 mechanics of various classes . . .

The Immigrant Processing Station Worksheet

1. What adjectives does the author use to describe the immigrants? If he uses any words with which you are not familiar, look them up in the dictionary. Do these words paint the immigrant in a positive or negative light?
2. What is the first step immigrants must complete upon their arrival?
3. Describe in one or two sentences how language presents a difficulty for the new comers and the officials at the immigration center.
4. Who is the second official the immigrants meet?
5. After changing his money to American dollars and purchasing his railway ticket (if he plans to settle outside of New York City), what might the immigrant do next?
6. Why would immigrants rejoice so much over getting a letter? Who might the new immigrants expect to have news from upon their arrival at Castle Garden? What else might be included in the envelope?

7. What happens to immigrants who have no money or help from friends or family already in America? What happens to immigrants who are sick?
8. Imagine that you are a new immigrant being reunited with family members who had come to America in the past? How would you feel to see them again? What would you want to do most with your family after being separated from them for a long time?
9. Describe the purpose of the Labor Exchange. Is there a similar institution in the United States today?
10. What seem to be the most popular jobs for immigrant females? For immigrant males?
11. If the story was told from the point of view of the immigrant how do you think it might be different?

Image: Immigrants Landing at Castle Garden in 1878



2: Immigrants Landing at Castle Garden in 1878. This illustration was taken from an 1880 Harper's Weekly Article and was drawn by A. B. Shults.

Glossary

Motley – Varied. The group was from a wide variety of backgrounds

Throng – A large group of people gathered or crowded closely together

Destination – The place to which the immigrant is going

Folios – A large sheet of paper, folded once in the middle making four “pages” (two leaves front and back) of a book

Remarkable want of intelligence – Lack of intelligence (not smart)

Recurring misapprehension – Misunderstandings that happen over and over again

Ascertain – To find out

Furnish him with – Give him

Upon which this is set forth, with the number of tickets wanted, and their cost in currency – The slip will have the passenger’s destination, the number of train tickets wanted, and the amount they will cost printed on it.

Promptly – Without delay

Thorough ablution – Full cleansing

Stone troughs – Stone wash basins

Linen – Clothes made from linen

“Kistes” – Baskets

She makes a rich harvest of . . . – She finds a lot of lace, velvet, silk, jewelry, and other expensive materials that she confiscates because the immigrants are trying to sneak it in.

Concealed – Hidden

Ingenious – Clever

Densely peopled – Very crowded

Means of subsistence – A way to provide food and shelter for themselves

Assistance – Help

Disposed of laborers – Jobs found for them

Destitute – Impoverished

Discharged – Released, let go

Souls – People

Reception – Greeting

Rotunda – A large area with a high ceiling, such as a hotel lobby

When there will be any quantity of questions to put and answers to make – This refers to people reacquainting themselves with friends and relatives by asking and answering questions

Comely – Attractive

Fond embraces – Loving hugs

Assurances – Promises

Generally – Usually

An employer – In this case, a job

Raw hands – Workers without experience

Ready employment – Jobs available

Nondescripts – Jobs that did not require special skills

Great proportion – A large number

Invention Challenge

Wisconsin State Curriculum Alignment:

Art B.4.1 – Understand that artists and cultures throughout history have used art to communicate ideas and to develop functions, structures, and designs.

Marketing E.4.3 – Identify a specific problem or concern and evaluate it.

Marketing E.8.2 – Apply problem-solving skills to a current issue or concern

- Gather and interpret information about the concern
- Form sound conclusions about what should be done in the situation
- Give reasons to support conclusions
- Evaluate the evidence and reasons used in forming conclusions

Activities/Lessons:

- Activity/Lesson: Invention
 - Materials needed:
 - Pen or Pencil
 - Printed worksheet

Background/History:

Even after Houdini achieved fame, he changed his act, adding new escapes to keep it interesting. Houdini also kept the audience interested by letting them challenge him with restraints they invented. Local manufacturers created all sorts of devices they thought could hold Houdini – crates, mail bags, a giant football, car wheel chains, a glass box, a boiler, and more! Houdini would accept a challenge one day, advertise the performance in flyers and newspapers, and then perform it another day when thousands of spectators filled the theater after reading about the challenge.

Houdini always inspected the challenge device to make sure it had not been tampered with (the lock jammed, for example.) Only once was Houdini beat, and that was when the challenger jammed the lock of the handcuffs, so that they did not work correctly. Houdini escaped every other device that his challengers invented.



3: Members of the British Women Suffragettes wrap Houdini in a bed of sheets and bandages and strap him in as a challenge, 1908. Radner Collection at the History Museum at the Castle

OXFORD

SUFFRAGETTES'

CHALLENGE TO

HOUDINI

Mr. HARRY HOUDINI.

1908

Dear Sir,

We, the undersigned, Members of the Women Suffragettes, having heard that it is impossible for you to be secured, and so far, only men have tried to fasten you, we wish you would allow us to secure you to a Mattress with Sheets and Bandages; and think that we will be able to fasten you so that you will not be able to effect your escape.

We challenge you to allow us to come on the stage of the OXFORD Music Hall, any night during your engagement, and allow us to put our theory into practice.

(Signed),

PEGGY WHEATLEY,
53, Camberwell Road.

MABEL STACEY,
16, Old Kent Road,
Peckham.

ETHEL GIBSON,
26, Stafford Road,
Roman Road, Bow.

M. GUY-BROWNE,
Clarence Gate.

R. CECIL,
Clapham Park.

MAUD FERNE,
23, Holmes Road,
Kentish Town, N.W.

THE TEST WILL TAKE PLACE AT THE

~ OXFORD ~

Friday, Nov. 27th.

4: The Suffragettes' challenge to Houdini. Radner Collection at the History Museum at the Castle

Activity/Lesson: Invention

Do you think you could stump Houdini? Design a device that might have held Houdini. Inventors use the following steps when tackling an invention. Use the steps to walk yourself through the process of invention.

1. State the problem. What problem are you trying to solve? solution to the problem will become your new invention.
2. Interview your parents, friends, and/or your teacher to get ideas. Here are some examples of questions you could ask them.

What materials might be strong enough to hold Houdini?

Are there any ways to improve upon the devices of other challengers to make them harder to escape? For example, could you make the crate out of glass rather than from wood?

Would it be harder for Houdini to escape if people could look in and see what he was doing?

How could you make it harder for Houdini to escape?

3. Now that you have an idea for what kind of device to invent, start to think about the material you would need if you were to build it. Make a list of these materials.
4. What does your invention look like? Draw a picture of it. Write a description of how the device works. The picture and description will communicate the structure, design, and function of your device to your classmates.

Online Variation:

Have all students share their inventions on a platform of your choosing (compile them into a PowerPoint or Slides presentation, have them make short videos describing their inventions, etc.) and have the class vote on which invention they think would work best and why.

Problem Solving – Dime Museum Harry

Wisconsin State Curriculum Alignment:

Marketing E.4.1 – Give examples that show how the problem-solving process works.

Marketing E.4.2 – Explain when problem-solving could or should be used.

Marketing E.4.3 – Identify a specific problem or concern and evaluate it.

Marketing E.8.2 – Apply problem-solving skills to a current issue or concern.

- Gather and interpret information about the concern.
- Form sound conclusions about what should be done in the situation.
- Give reasons to support conclusions.
- Evaluate the evidence and reasons used in forming conclusions.

Marketing G.4.3 – Use adult role models and other resources to learn about problem-solving as it relates to work in each of the four broad types of work (human, enterprise, technology, invention).

Activities/Lessons:

- Activity/Lesson: Problem Solving
 - Materials needed:
 - Pen or Pencil
 - Printed Worksheet

Background/History:

When Houdini was 17 years old on November 7, 1892, he and his younger brother Theo performed at the Wonderland Theater, a dime museum in Milwaukee, Wisconsin. They performed their Mystery Box trick for the anxious audience. Larry Wilden writes in his article, “Milwaukee’s Dime Museums,”

In the illusion performed at Wonderland, [Houdini’s] hands were tied behind his back and he was placed in a sack with its mouth securely tied shut. The sack was then placed in a large box which was fastened, locked, and tied with more ropes. The brothers worked a new twist into this old trick that was more than just the expected escape. A curtain was placed over the box with [Houdini] inside. Three seconds later, when it was removed, [Houdini] was standing next to the box. When that was unlocked, Theo was inside the sack with his hands tied behind his back.

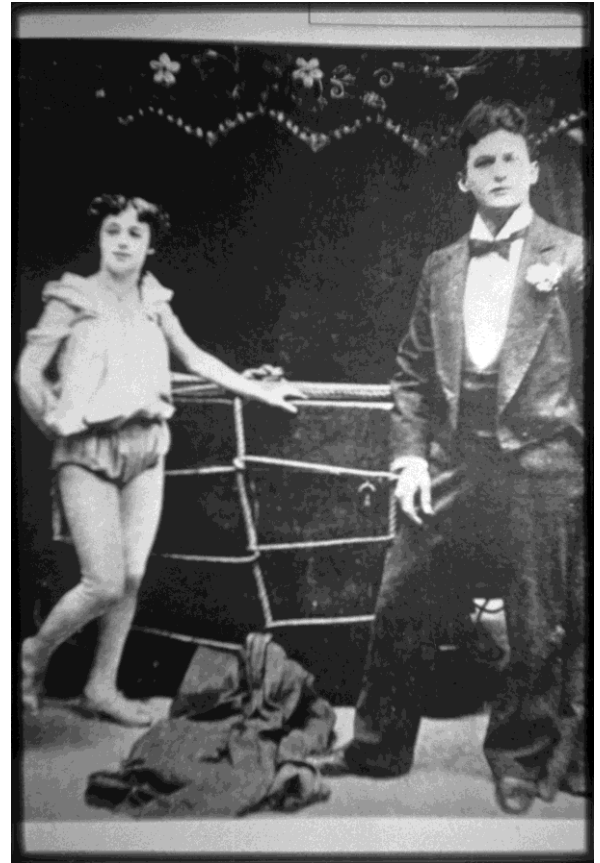
Activity/Lesson: Problem Solving

Read the following paragraph describing Houdini and his brother, Theo, performing the Mystery Box/Metamorphosis trick:

In the illusion performed at Wonderland, [Houdini's] hands were tied behind his back and he was placed in a sack with its mouth securely tied shut. The sack was then placed in a large box which was fastened, locked, and tied with more ropes. The brothers worked a new twist into this old trick that was more than just the expected escape. A curtain was placed over the box with [Houdini] inside. Three seconds later, when it was removed, [Houdini] was standing next to the box. When that was unlocked, Theo was inside the sack with his hands tied behind his back.

The picture to the right shows Houdini and his wife, Bess, standing next to a box used for this trick.

How is this possible? Houdini was a great problem solver. He found ways to do that which seemed impossible to the audience. The Mystery Box (Metamorphosis) trick presented a problem to Houdini – he had to figure out how to quickly release himself from the restraints of the rope, sack, and trunk, while at the same time his brother had to be restrained and shut in the trunk.



5: Houdini and his wife, Bess, perform the Metamorphosis. Collection of the History Museum at the Castle

Go through the steps of problem solving to see if you can help Houdini find a solution to his problem.

1. First, it is important to **Understand the Problem**.

How would you describe the problem? State the problem in your own words.

What are you trying to find or do? In other words, what does the solution of the problem look like?

What information does the description of the trick/problem give you? What information is missing or unknown?

2. Second, **Create a Plan of Action**

Look at related problems and determine if the same technique can be used to solve this problem.

Make a diagram.

Guess the solution and check your ideas to see if they are workable.

Identify sub goals (such as escape from rope around wrists and escape from sack).

3. Third, **Carry out the Plan**

Implement your plans from step 2. Check each step as you go. (Illustrate how your ideas will work.)

Keep an accurate record of your work. Don't just keep your ideas about solutions in your head; write them down.

4. Fourth: **Looking Back**

Check your results. (It may not be reasonable with Houdini's kinds of problems to try the solution yourself, but research about Houdini's magic can help you to know how Houdini solved the problems behind his illusions, escapes, and tricks.)

Interpret your solutions in terms of the original problem. In other words, does the answer make sense? Is it reasonable?

Think about other possible ways of solving the problem. Are there other answers that also work?

If possible, find similar problems for which your techniques will work as well.

Hints:

Some information that may help as you attempt to solve the problem of the Mystery Box (Metamorphosis) Illusion:

- Houdini used different methods of escaping from restraints. Sometimes, Houdini hid keys, lock picks, or tools on or in his body. He put lock picks and keys in his hair and swallowed and regurgitated tools. He might also hide keys, tools, or lock picks in his clothing. Sometimes, Houdini could wiggle out of restraints such as handcuffs, ropes, or straight jackets, or he used cuffs that were rigged to open easily. Houdini also might wear a metal plate on his leg to break open locks with a hard knock.
- Houdini was a creative problem solver. He could often see that there was more than one solution to a problem. He played upon the audience's assumptions about the way things worked, and their desire to be fooled, in order to be successful in his escapes and illusions. For example, because the audience saw how Houdini stepped into the sack and was tied up and how he entered the trunk and was locked inside, they probably assumed that in order to come out, all of these actions needed to be "undone." They most likely thought that the sack had to be untied and the trunk unlocked and opened in the same way for Houdini to get out and Theo to get in. But Houdini knew that there was more than one way of doing things – he was a master at devising unlikely ways out of restraints like sacks or boxes.
- Remember: the Mystery Box (Metamorphosis) was performed behind a curtain. The curtain would be opened while Houdini presented the trick and was tied up, restrained in the sack, and locked in the trunk. Then, Theo would close the curtain and count to three before Houdini opened the curtain to reveal the switch. The audience could not see what went on behind the curtain.

Come up with a possible solution for the Mystery Box (Metamorphosis) trick. As a class, you can check your work by visiting the Outagamie County Historical Society's *A.K.A. Houdini* exhibit (and trying the trick yourselves in a safe environment) or researching Houdini's magic. *Who Was Harry Houdini?* By Tui T. Sutherland (Scholastic Books, 2003) provides an explanation of the trick and gives a biography of the Master Mystifier.

The Psychology of Magic

Wisconsin State Curriculum Alignment:

Health F.4.1 – Distinguish between and demonstrate verbal and nonverbal communication.

Theater Arts E.4.6 – Rehearse and perform a scene or play for peers and invited guests.

Activities/Lessons:

- Activity/Lesson #1: Balancing Grape
 - Materials needed:
 - Toothpick
 - Grape
- Activity/Lesson #2: Gambler's Bluff
 - Materials needed:
 - Deck of cards

Background/History:

Psychology is the science that deals with the way our brains work and how we behave as a result.

Magicians rely on their knowledge of psychology and specifically memory, perception (how we recognize and interpret things we see, hear, taste, touch, or smell according to information stored in our brains,) and deception (the act of misleading someone into believing something that is false) in order to practice their art. Using psychology, they create an “effect” (what the audience sees or perceives). The way that they do this is called the method. Author Simon Singh describes the method as “the magician’s secret way of achieving the effect.” Often, psychology is used to disguise the method and separate it from the effect. The audience will then see the effect, but not the method.

Physical misdirection is one way magicians use psychology to disguise their method. Through physical misdirection, the magician can direct the audience’s attention to something, and while they are focused on that, the magician can perform the trickery elsewhere, totally unnoticed. Misdirection works because of psychological principles, like the tendency of the human mind to be easily distracted by movement or the introduction of something new, and the tendency to look where others are looking. A simple example follows: A magician shows an empty hat, then turns to introduce his assistant. As he looks toward her, so does the audience. The assistant trips coming onto the stage and while the audience’s attention is on her, the magician sneaks a rabbit into the empty hat.

In mental misdirection, a magician misdirects the audience’s suspicion rather than their attention. The magician, in other words, uses a “false method,” doing the trick in such a way that the audience thinks they know how it works, but in the end are still left baffled. As the audience focuses on the false method, they miss the real one, and their attempts to figure out how the trick is done fail.

Activity/Lesson #1: Balancing Grape

This trick, from the *Usborne Book of Magic Tricks*, uses physical misdirection to fool the audience.

Start with your first finger pointing upwards, secretly holding a cocktail stick or toothpick behind it with your thumb. Keep the point just below the tip of your finger. Tell the audience that you will balance a grape on your finger. Push the grape onto the toothpick, pretending to position it on the end of your finger. Move your hand as if it is difficult to keep the grape balanced, and pretend to concentrate hard. Keep your palm towards you to hide the toothpick.

To finish, take the grape off the toothpick and give it to someone in the audience to try the trick. While no-one is watching, put the stick in your pocket.

Activity/Lesson #2: Gambler's Bluff

"Gambler's Bluff," also from the *Usborne Book of Magic Tricks*, uses mental misdirection to fool the audience. Here you pretend to recognize a chosen card from the tone of a volunteer's voice.

To prepare, put the four aces aside and secretly put six hearts on top of the pack and six on the bottom.

Ask a volunteer to deal the 48 cards into six piles, take a card from the middle of a pile and memorize it.

Ask them to put their card on top of any pile and put the other piles on top and underneath. Let them cut the pack a few times, then ask them to deal the cards face-up, naming them as she deals them. Stop them when you hear a card between two hearts. It is their card. Pretend you knew from their voice. If you miss it, ask them to deal again. It could be the first card in the pack if the second is a single heart.

Practice these tricks and perform them for your friends and family. Observe their reactions to see if your attempts at misdirection are working.

The Immigrant's Point of View

Wisconsin State Curriculum Alignment:

English Language Arts A.4.3 – Read and discuss literary and nonliterary texts in order to understand human experience.

- Identify and summarize main ideas and key points from literature, informational texts, and other print and non print sources.

English Language Arts A.4.4 – Read to acquire information.

- Summarize key details of informational texts, connecting new information to prior knowledge.

Social Studies B.4.1 – Identify and examine various sources of information that are used for constructing an understanding of the past, such as artifacts, documents, letters, diaries, maps, textbooks, photos, paintings, architecture, oral presentations, graphs, and charts.

Social Studies B.4.3 – Examine biographies, stories, narratives, and folk tales to understand the lives of ordinary and extraordinary people, place them in time and context, and explain their relationship to important historical events.

Social Studies B.8.4 – Explain how and why events may be interpreted differently depending upon the perspectives of participating witnesses, reporters, and historians.

Activities/Lessons:

- Activity/Lesson 1: *The Rise of David Levinsky* worksheet
 - Materials needed:
 - Pen or Pencil
 - Printed worksheet
- Activity/Lesson 2: Point of View activity worksheet
 - Materials needed:
 - Pen or Pencil
 - Printed worksheet

Background/History:

Below is an excerpt from *The Rise of David Levinsky* by Abraham Cahan and is used in both activities in this document. Although this is a fictional novel, it is based upon Abraham Cahan's own experiences as an immigrant. Cahan was born in Russia but came to the United States as a young man of twenty-two years in 1882. Cahan grew up in modern-day Lithuania in a town called Vilna. His father was a teacher and his grandfather a rabbi. After arriving in the United States, Cahan began writing for a Jewish-Russian weekly newspaper called *Russky Yevrey*. Fifteen years after settling in America he founded his own newspaper for Jewish immigrants, the *New York Jewish Daily Forward*. He also wrote three novels in English: *Yekl: A Tale of the New York Ghetto* (1896); *The White Terror and the Red* (1905); and *The Rise of David Levinsky* (1917). *The Rise of David Levinsky* is Cahan's best known work. In this novel, he talks about the experience of becoming an American – a social, ethnic, and linguistic change for the immigrant. Through Cahan's writing, we learn the perspective of the immigrant.

The Rise of David Levinsky by Abraham Cahan excerpt

I vividly recall the feeling, for example, with which I greeted the first cat I saw on American soil. It was on the Hoboken pier, while the *steerage* passengers were being marched to the ferry. A large, black, well-fed feline stood in a corner, eying the crowd of new-comers. The sight of it gave me a thrill of joy. 'Look! There is a cat!' I said to Gitelson [his friend]. And in my heart I added, 'Just like those at home!' For the moment the little animal made America real to me . . .

We were ferried over to Castle Garden. The harsh manner of the immigration officers was a *grievous* surprise to me . . . 'They are not a bit better than *Cossacks*,' I remarked to Gitelson . . . These unfriendly voices flavored all America with a spirit of icy *inhospitality* that sent a chill through my very soul.

Many of the other immigrants were met by relatives, friends. There were cries of joy, tears, embraces, kisses. All of which *intensified* my sense of loneliness and dread of the New World . . . Gitelson, who like myself had no friends in New York, never left my side. He was even more timid than I. It seemed as though he were holding on to me for dear life. This had the effect of *putting me on my mettle*.

'Cheer up, old man!' I said, with *bravado*. 'America is not the place to be a *ninny* in. Come, pull yourself together.' In truth, I addressed the *exhortations* as much to myself as to him; and so far, at least, as I was concerned, my words had the desired effect.

I led the way out of the big Immigrant Station . . .

Where were we to go? What were we to do? . . . I *mustered* courage to approach a policeman, something I should never have been bold enough to do at home . . . With his coat of blue cloth, starched linen collar, and white gloves, he reminded me of anything but the policemen of my town. I *addressed him* in Yiddish, making it as near an approach to German as I knew how, but my efforts were lost on him. He shook his head . . . he then pointed his club in the direction of Broadway and strutted off *majestically*.

At this moment a voice *hailed* us in Yiddish. Facing about, we *beheld* a middle-aged man with huge, round, perpendicular nostrils and a huge, round, deep dimple in his chin that looked like a third nostril. *Prosperity* was written all over his smooth-shaven face and broad-shouldered, stocky figure.

He was literally aglow with diamonds and *self-satisfaction*. But he was unmistakably one of our people. It was like coming across a human being in the jungle . . .

'God Himself has sent you to us,' I began, acting as the spokesman; but he *gave no heed* to me. His eyes were eagerly fixed on Gitelson and his tatters.

'You're a tailor, aren't you?' he questioned him.

My steerage companion nodded. 'I'm a ladies' tailor, but I have worked on men's clothing, too,' he said . . .

'A ladies' tailor?' the well-dressed stranger echoed, with *ill-concealed* delight. 'Very well; come along. I have work for you.'

As I learned *subsequently*, the man who *accosted* us on State Street was a cloak contractor, and his presence in the neighborhood of Castle Garden was anything but a matter of chance. He came there quite often, in fact, his purpose being *to angle for* cheap labor among the newly arrived immigrants.

As we *resumed* our walk up Broadway the *bejeweled* man turned to me.

‘And what was your *occupation*? You have no trade, have you?’

‘I read Talmud,’ I said, confusedly.

‘I see, but that’s no business in America,’ he declared. ‘Any relatives here?’ ‘Well, don’t worry. You will be all right. If a fellow isn’t lazy nor a fool he has no reason to be sorry he came to America. It’ll be all right . . .’

When we reached the General Post-Office . . . our guide bade us stop.

‘Walk straight ahead,’ he said to me, waving his hand toward Park Row. ‘Just keep walking until you see a lot of Jewish people. It isn’t far from here.’ With which he slipped a silver quarter into my hand and made Gitelson *bid me good-by*.

The two then boarded a big red horse-car . . .

My heart sank within me. I may safely say that the half-hour that followed is one of the worst I experienced in all the thirty-odd years of my life in this country.

With twenty-nine cents in my pocket . . . I set forth in the direction of East Broadway.

Activity 1: The Rise of David Levinsky Questions

1. The narrator of this novel is an immigrant named David Levinsky. His character is a Russian Jew who had immigrated to the United States. What is one thing that David remembers most about his first few hours in America?
2. Try to remember a time when you were introduced to something completely new – like your first day at kindergarten, or your first visit to an amusement park. What are the sights, sounds, feelings, etc. that you remember most about that experience?
3. From Levinsky's description of his first few hours in America can you get a sense of what challenges new arrivals faced? Name at least two challenges faced by Levinsky.
4. What do you predict will happen to Levinsky's friend Gitelson?
5. What do you think will happen to Levinsky?

Glossary

Vividly – Clearly, intensely

Steerage – The section of a passenger ship near the rudder that provided the cheapest passenger accommodations

Grievous – Disturbing, upsetting

Cossacks – Members of the Russian military known for their brutality

Inhospitality – Unfriendliness, the state of being unwelcoming

Intensified – Made stronger, increased

Putting me on my mettle – Preparing me to accept a challenge

Bravado – A false show of courage

Ninny – Fool

Exhortations – Encouraging words

Mustered – Pulled together, gathered

Addressed him – Spoke to him

Majestically – In a grand manner

Hailed – Called to

Beheld – Gazed at

Prosperity – Financial success, wealth

Self-satisfaction – A feeling of being happy with or proud of yourself

Gave no heed – Paid no attention

Ill-concealed – Not well hidden, obvious

Subsequently – At a later time

Accosted – Approached boldly

To angle for – To try to get something, but not be clear about your intentions

Resumed – Continued

Bejeweled – Wearing a lot of jewelry

Occupation – Job

Bid me good-bye – Said good-bye to me

The Industrial Revolution

Wisconsin State Curriculum Alignment:

English Language Arts B.8.1 – Create or produce writing to communicate with different audiences for a variety of purposes.

- Write a persuasive piece (such as a letter to a specific person or a script promoting a particular product) that includes a clear position, a discernable tone, and a coherent argument with reliable evidence.

Social Studies E.8.8 – Give examples to show how the media may influence the behavior and decision-making of individuals and groups.

Social Studies B.8.1 – Interpret the past using a variety of sources, such as biographies, diaries, journals, artifacts, eyewitness interviews, and other primary source materials, and evaluate the credibility of sources used.

Social Studies B.8.8 – Identify major scientific discoveries and technological innovations and describe their social and economic effects on society.

Activities/Lessons:

- Activity/Lesson 1: The Industrial Revolution
 - Materials needed:
 - Pen or Pencil
 - Printed worksheet
- Activity/Lesson 2: Muckracking Journalism
 - Materials needed:
 - Pen or Pencil
 - Lined paper

Background/History:

Houdini came to America during the height of the American Industrial Revolution. By the late 1700s Americans were already experimenting with machines to reduce labor costs. In 1790, a British immigrant named Samuel Slater built America's first water-powered textile mill in Pawtucket, Rhode Island. This marked the beginning of America's Industrial Age. Only three years later, Eli Whitney invented the cotton gin, a machine that cleaned cotton and removed cotton seeds.

By the mid 1800s, American cities were growing as factories opened and people came from rural areas in the hopes of finding jobs. After the end of the Civil War in 1865, many freed slaves migrated North to escape white southerners' anger and to build a better life. This migration was greatly helped by trains powered with steam locomotives, invented in 1804. The steamship, telegraph, telephone, improved printing methods, and improved postal delivery were also products of the Industrial Revolution.

All this productivity came at a price. New machines could do the work skilled workers spent years perfecting. This enabled factories to hire unskilled laborers for lower pay to run the machines. To increase productivity, factories also increased the length of the working day. Laborers often worked twelve-hour shifts six to seven days a week. The pay was low and working conditions were poor.

However, for immigrants in cities, factory work was one of few options available. Many of the 25 million immigrants who came to America between 1866 and 1915 became factory workers. Many immigrants from this era came from Eastern and Southern Europe and faced many prejudices.

Some photo journalists went into immigrant ghettos and factories and took pictures showing the difficult conditions in which immigrants worked and lived. In a 1906 speech, President Theodore Roosevelt compared investigative journalists of the early 1900s to a person whose job it was to literally rake up muck (animals' dung.) Following the speech, investigative journalists became known as muckrakers. The muckrakers investigated and wrote about injustices in society, hoping to encourage reform. They tackled subjects such as treatment of prisoners in jail, health concerns related to food processing, the abuse of child labor, the destruction of natural resources, and unacceptable working conditions in factories.

Activity/Lesson 1: The Industrial Revolution

Study the photo below and analyze it with the help of the questions provided.



Girls at the weaving machines, Lincoln Cotton Mills, Evansville, Indiana. Library of Congress LOT 7479, v.1, no. 0220 [P&P]

1. What type of factory do you think this is? Cite evidence to support your answer.
2. This girl is weaving cloth on a loom. How might her work be dangerous or uncomfortable?
3. What kind of work conditions does the factory provide? Things to think about include: Is there adequate light? Is there fresh air? Are the workers safe in case of an accident or fire?
4. Would you like to work in this factory? Why or why not?
5. What kinds of technology are used in this factory? How do you think this technology might have changed the way this job was done? How do you think it affected the workers?

Activity/Lesson 2: Muckracking Journalism

Find library books or information online on the American Industrial Revolution and the lives of factory workers in the late 1800s and early 1900s. Read about the conditions in which many immigrants lived and worked at the time.

Write your own piece of muckraking journalism and try to convince your audience that conditions need to change. What will you tell your audience to convince them that conditions are unacceptable? What improvements can you suggest? Do you think that you and other muckrakers can convince factory owners and tenement housing landlords to make those changes on their own or do you think that change needs to start with laws that protect the immigrants from unsafe conditions? Try to use your skills as a writer to convince people to take action!

After writing your article about living and working conditions for immigrants of the late 1800s and early 1900s, try to think of a modern-day cause that a muckraker journalist might write about. Where is corruption occurring in today's society? Do you know of groups that suffer poor living and working conditions? Write down your ideas about subjects for a modern muckraking article.

The Strong Man

Wisconsin State Curriculum Alignment:

Health A.4.3 – Identify ways to be healthy during childhood.

Health B.4.4 – Demonstrate strategies to improve or maintain personal health.

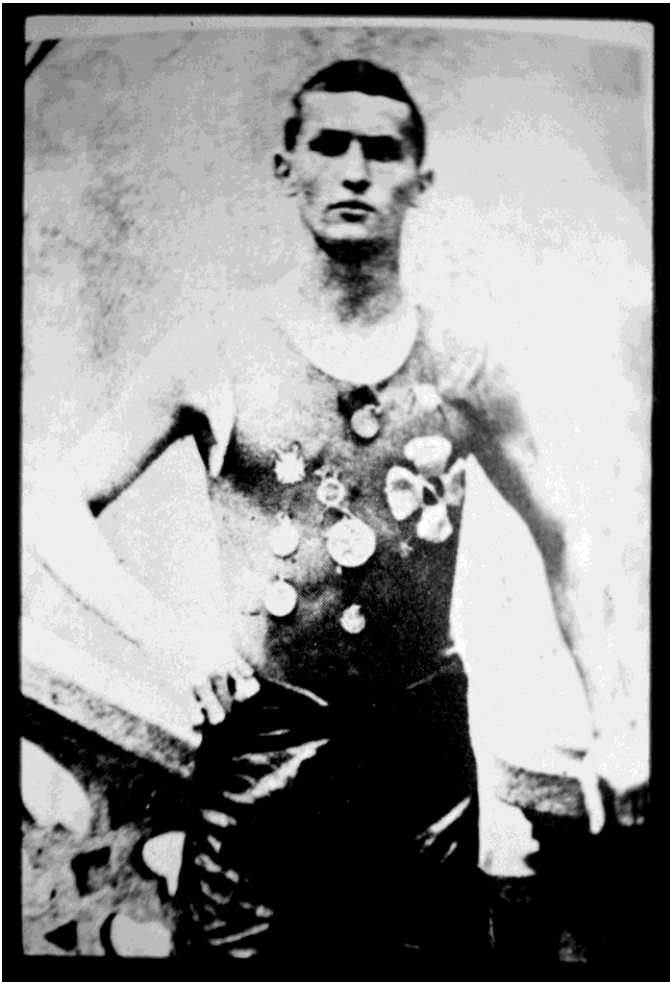
Health C.4.4 – Set a personal health goal and track progress toward achievement.

Activities/Lessons:

- Activity/Lesson: Kids' Activity Pyramid
 - Materials needed:
 - Printed sample pyramid (or display it on your Smartboard)
 - Printed Activity Tracker
 - Printed Blank Activity Pyramid
 - Pen or Pencil

Background/History:

Houdini was able to perform many of his escapes because of his physical strength. He spent a lot of time training his body to withstand the trials of escaping handcuffs, straight jackets, and underwater traps. As a teenager, Ehrich Weiss (later known as Harry Houdini) was a natural athlete. He spent much of his free



time running, diving, and swimming at a boys' club near his home. He also boxed against other boys in the club. He even won some first-place medals in athletic competitions. Houdini exercised his hands to keep them flexible and fast for tricks like vanishing coins or picking locks. He would go underwater in his bathtub and see how long he could hold his breath to prepare for tricks like the water torture cell and the milk can escape. Bess would stand by to time him. Sometimes, he would make the water icy cold just to see how long he could stand it. This conditioning would help Houdini when he jumped into cold river water while handcuffed or locked in a packing crate, or when he performed his water torture cell escape.

One writer said of Houdini, "... strength and endurance were his most precious assets." And knowing that, Houdini took care of his body. In addition to working out by swimming, running, and boxing, Houdini never drank alcohol or smoked because he knew such things were bad for his body. You can also take care of your body by exercising, eating well, and practicing healthy habits.

6: Houdini as a young athlete in New York City. History Museum at the Castle.

Activity/Lesson: Kids' Activity Pyramid

Go over the “Kids' Activity Pyramid” with your students.

Have the students personalize the activity pyramid to their own lives.

For a week, have students track time spent on their activities. Do they spend more time being active or inactive (sitting, playing video games, watching TV, computer work, etc.)? Help the class to categorize their activities according to the pyramid guide – as everyday activities, aerobic exercises, recreation activities, leisure and play activities, strength and flexibility activities, and watching TV and videos. Have them fill in the pyramid with the base being activities (or inactivity) on which they spent most of their time, the next layer being things they did 3-5 times that week, the third layer being activities they did 2-3 times over the week, and finally the layer on which they spent the least time.

After mapping out their real activity pyramid, ask them to make a list of activities they could do more of to improve their health. Are they spending a lot of time watching TV, playing video games, playing on the computer, etc.? How could they reduce their times of inactivity? Are there TV shows they would be willing to give up? Perhaps they can make a time limit for playing video games. Ask them to make these changes and to track their activities for another week. Did they improve the level of activity? Check in with the class to see what changes have been made.

Kids' Activity Pyramid from MD Pediatric Associates

**Have FUN and be active each week
by trying some of these activities...**

With your family

- go biking
- take a walk together
- play at the park
- have a "turn-off-the-TV-day"

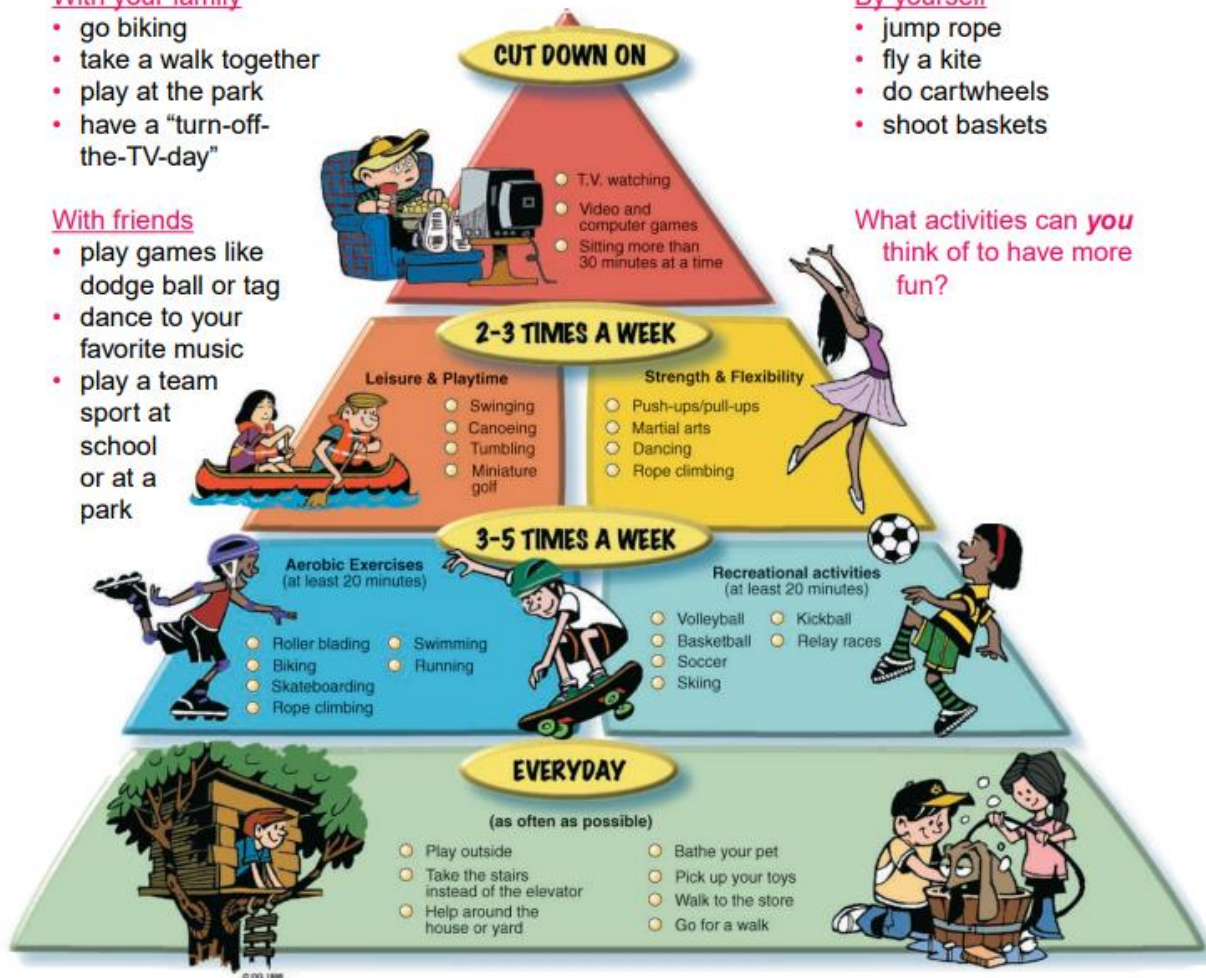
With friends

- play games like dodge ball or tag
- dance to your favorite music
- play a team sport at school or at a park

By yourself

- jump rope
- fly a kite
- do cartwheels
- shoot baskets

What activities can **you** think of to have more fun?



Kids' Activity Tracker

Track your activity for a week. Each day, write the amount of time you spent doing each type of activity. There are examples listed next to the types to help you. At the end of the week, add up the number of hours or minutes you spent doing each type of activity that week. Then fill in your own Activity Pyramid!

	Monday	Tuesday	Wednesday	Thursday	Friday	Total hours or minutes
Everyday Activities (take the stairs instead of the elevator, clean the house, bathe your pet, pick up your toys, go for a walk)						
Aerobic Exercise (roller blading, biking, skateboarding, swimming, running)						
Recreational Activities (volleyball, basketball, soccer, skiing, kickball)						
Leisure and Playtime (swinging, canoeing, tumbling, miniature golf)						
Strength and Flexibility (push ups/pull ups, martial arts, dancing, rope climbing)						
Sedentary Activities (watching TV, playing video games, reading a book, sitting for more than 30 minutes at a time)						

My Own Activity Pyramid

Hey, kids!

This is your own personal physical activity pyramid. List your physical activities for a week.

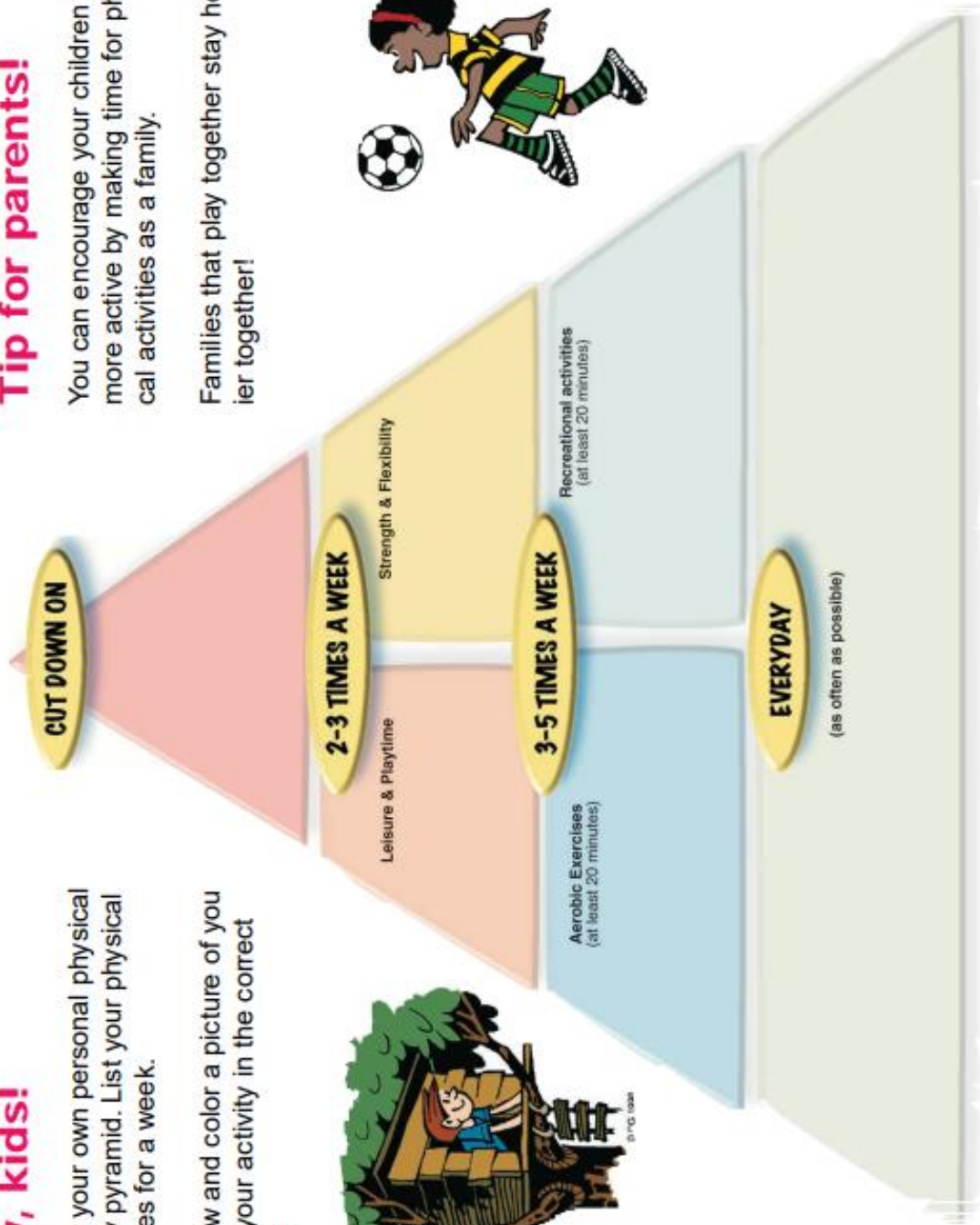
Or draw and color a picture of you doing your activity in the correct space.



Tip for parents!

You can encourage your children to be more active by making time for physical activities as a family.

Families that play together stay healthier together!



Urbanization

Wisconsin State Curriculum Alignment:

Art and Design E.4.1 – Communicate basic ideas by producing studio art forms, such as drawings, paintings, prints, sculpture, jewelry, fibers, and ceramics.

Social Studies B.4.1 – Identify and examine various sources of information that are used for constructing an understanding of the past, such as artifacts, documents, letters, diaries, maps, textbooks, photos, paintings, architecture, oral presentations, graphs, and charts.

Social Studies B.4.3 – Examine biographies, stories, narratives, and folk tales to understand the lives of ordinary and extraordinary people, place them in time and context, and explain their relationship to important historical events.

Activities/Lessons:

- Activity/Lesson: Urbanization in the Hebrew Quarter
 - Materials needed:
 - Computer paper
 - Colored Pencils, markers, or crayons

Background/History:

Between 1820 and 1920, American cities grew extremely quickly. Urbanization, the rapid growth of cities, was closely tied to immigration and industrialization. Industrialization meant that labor once done by hand could now be done by machines. New inventions used technical advances to enable fewer people to be more productive. This meant that less people were needed to work. Farmers found they could produce a higher yield by using machinery than by relying on handwork. However, following the Civil War's end in 1865, prices on farm produce dropped. This left farmers in a bad financial state and made paying for new farm machinery difficult. Many farmers had to sell their farms and move to the city. In 1820, over 50% of Americans worked on farms. In 2000 only 2% of Americans produce food for the U.S. and to export to other countries. Also, in 1860, 20% of Americans lived in cities and towns. Today 50% of Americans dwell in cities and towns and an additional 25% live in densely populated suburbs.

Many immigrants to America settled in cities. They often established ethnic neighborhoods with immigrants from the same country to share the traditions, language, and culture of their homeland. Often, immigrants had very little money and their neighborhoods reflected this poverty. Housing affordable to immigrants was often called tenement housing. Tenements were apartment-like buildings, usually very narrow with only narrow passageways separating one building from the next. Tenement apartments were usually made up of 2 rooms where the whole family would live and sometimes work. It was also very common for families to have boarders in their tiny apartments to help pay the rent. Often, there were around 12 people in each apartment. One room generally served as a kitchen and living space while the other served as a bedroom at night and maybe as a “sweatshop” during the day. A “sweatshop” was an in-home factory where families worked sewing clothes, rolling cigars, or making silk flowers. Families were paid by the piece for this work so anybody with able hands – even small children – had to help.

Often there was very little fresh air and light in the tenement. Only a few rooms had windows and there was no way for air and light to move to the interior apartments. It was common for more than 20 families to share one outhouse. There was no running water, making it was hard for tenants to bathe and wash their clothes. Diseases like cholera, typhoid, smallpox, and tuberculosis were common and spread easily. Outside the tenement building, peddlers sold their goods in the streets. They sold food next to piles of manure and garbage lying in the gutters. Children also played in the streets since there were no yards.

Activity/Lesson: Urbanization in the Hebrew Quarter

Read the following description of the tenements of the “Hebrew Quarter” – an area of the Lower East Side of New York City where many Jewish immigrants settled. This description of the overcrowded tenements comes from journalist Jacob Riis.

The homes of the Hebrew quarter are its workshops also . . . You are made fully aware of it before you have traveled the length of a single block in any of these East Side streets, by the whirl of a thousand sewing-machines, worked at high pressure from earliest dawn till mind and muscle give out together. Every member of the family, from the youngest to the oldest, *bears a hand*, shut in the *qualmy* rooms, where meals are cooked and clothing washed and dried besides, the livelong day. It is not unusual to find a dozen persons – men women, and children – at work in a single small room . . . The overflow from these tenements is enough to make a crowd anywhere. The children alone would do it. Not old enough to work and no room for play, that is their story. In the home the child’s place is *usurped* by the lodger, who . . . pays the rent. In the street the army of *hucksters* crowd him out. Typhus fever and smallpox are bred here . . . Filth diseases both, they sprout naturally among the *hordes* that bring the germs with them from across the sea, and whose first instinct is to hide their sick lest the authorities carry them off to the hospital to be slaughtered*, as they firmly believe. The health officers are on constant and sharp lookout for hidden fever-nests . . .

Up two flights of dark stairs . . . smells of cabbage, of onions, of frying fish, on every landing, whirring sewing machines behind closed doors *betraying* what goes on within, to the door that opens to admit the bundle and the man. A *sweater*, this, in a small way. Five men and a woman, two young girls, not fifteen, and a boy who says unasked that he is fifteen, and lies in saying it, are at the machines sewing *knickerbockers*, “knee-pants” in the Ludlow Street dialect. The floor is littered ankle-deep with half-sewn *garments*. In the *alcove*, on a couch of many dozens of “pants” ready for the finisher, a bare-legged baby with pinched face is asleep. A fence of piled-up clothing keeps him from rolling off on the floor. The faces, hands, and arms to the elbows of everyone in the room are black with the color of the cloth on which they are working . . .

Evening has worn into night as we take up our homeward journey through the streets, now no longer silent. The thousands of lighted windows in the tenements glow like dull red eyes in a huge stone wall. From every door multitudes of tired men and women pour forth for a half-hour’s rest in the open air before sleep closes the eyes weary with incessant working. Crowds of half-naked children tumble in the street and on the sidewalk, or doze fretfully on the stone steps. As we stop in front of a tenement to watch one of these groups, a dirty baby in a single brief garment – yet a sweet, human little baby despite its dirt and tatters – tumbles off the lowest step, rolls over once, clutches my leg with unconscious grip, and goes to sleep on the flagstones, its curly head pillowed on my boot.²

*Some immigrants did not know what would happen when loved ones were taken to the hospital. This may be because they did not have access to such facilities in their homeland.

Draw a picture of a tenement building or neighborhood as Jacob Riis describes it. Write a short description or caption of what is going on in your picture.

² Jacob Riis, *How the Other Half Lives*, New York: Charles Scribner’s Sons, 1890.

Glossary

Bears a hand – Lends a hand, pitches in

Qualmy – Rooms filled with sickness

Usurped – Taken over by

Hucksters – People who sell wares in the street

Hordes – Masses, crowds

Betraying – Giving up a secret

Sweater – Sweatshop

Knickerbockers – Pants gathered and banded just below the knee, knickers

Garments – Clothes

Alcove – A partly enclosed section of a room

What is Illusion?

Wisconsin State Curriculum Alignment:

Health A.4.5 – Describe the basic structure and functions of the human body systems.

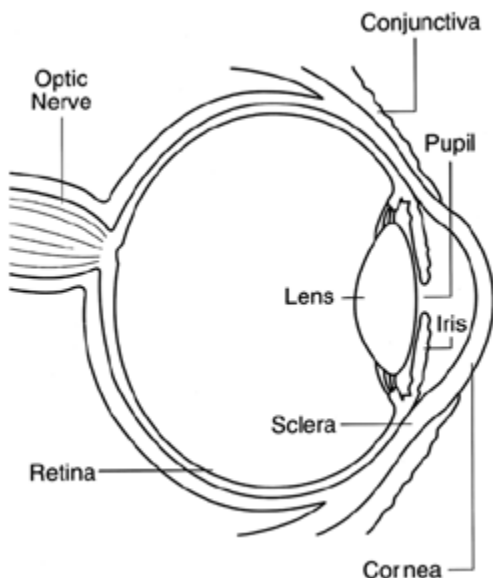
Activities/Lessons:

- Activity/Lesson 1: Optical Illusions
 - Materials needed:
 - Images (you can print these or put them on your Smartboard)
- Activity/Lesson 2: Watch Colors Disappear
 - Materials needed:
 - Crayons
 - Scissors
 - Cardboard
 - Ruler
 - Mason jar lid
 - Large-eyes needle (wool needle)
 - A piece of string about 3 feet long

Background/History:

An illusion is an image or representation believed to be real in our mind's eye, but that is not actually real. In other words, because of the way our eyes and brain work, our eyes are tricked into seeing something that is not really there or into seeing something happen that did not really happen. Illusions can be deceiving, and magicians use illusions to make the audience believe that something happened by magic. Optical illusions tell a story about how our eyes and brain work together to allow us to see.

First, let us learn about how our eyes work. Look at the diagram below and locate the different parts of the eye. The outer part of your eye is called the *cornea*. The cornea is transparent and acts as a shield for your eye, keeping germs and dust away from your eyeball. It also directs light into your eye through the *iris* (the colored part of your eye) and into the *pupil* (the dark spot at the center of your eye.) When light passes through the pupil it moves on to the *lens*. The lens sits behind the cornea. As light passes through the lens, it is focused and forms an image on the eye's *retina*. The retina acts like film in a camera, capturing an image of what the eye is seeing, using cells that recognize light, color, and movement.



The image captured is not yet what we see, however. It is upside down at this point, and needs to be “interpreted” by the brain before we know what we see. Another important thing about the retina is that there is a part of it that does not have any of those special cells that capture the image. This is our “blind spot.” Any image that falls on this area will not be seen. The blind spot does contain optic nerves which transport the captured image from the eye to the brain. Sometimes the blind spot confuses the nerve impulses that

transport the image to the brain, causing a misrepresentation – an illusion.³

The brain receives the image through nerve impulses from the optic nerve and somehow (scientists do not yet know how) turns it right side up. The brain “interprets” what the eyes see, sometimes using past experiences to help it put together an image. That is why you can look at a familiar saying, like

A penny saved is
is a penny earned.

and read it as “A penny saved is a penny earned” even though it actually contains an extra word (“is is”.) Your mind is seeing what it expects to be there, not what is actually there.

There are several different kinds of optical illusions. Scientists do not understand how all of them work. Some illusions distort an image’s size, shape, or length. Some use shadow and light or an image’s surroundings to work. In all cases we are tricked into seeing something that is not really there, or into seeing only part of what is there.

One type of optical illusion is the after image. An afterimage occurs when we stare at a picture or object for a while and then look away, but still see the image even though it is no longer in front of us. After images happen because of the level of contrast (the amount of difference between light and dark, for example a dark image against a white background) and brightness of the image. (See the Optical Illusions activity below to try to this.)

Another type of illusion is the ambiguous illusion. This is when your brain can interpret a single image to be more than one thing. Depending on how you look at an image – the angle of the image, shading from light to dark, and the way the image is related to your past experiences – you may see something entirely different than what your neighbor sees. (See the Optical Illusions activity below to try to this.)

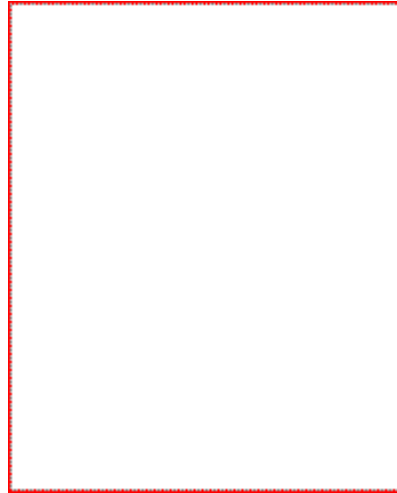
Some illusions cause us to see an object or scene that could not logically exist. This accomplished through the use of shading, which can cause something to appear to be farther away, and lines, which appear to give depth or dimension. (See the Optical Illusions activity below to try to this.)

³ <http://library.thinkquest.org/J0110336>

Activity/Lesson 1: Optical Illusions

After Image

Look at this picture of a woman for about one minute, then look at the empty box on the right. You just might see an image of the woman in the box, even though you know it is empty.⁴



Ambiguous Illusion

Here is a picture of a man, but what else is he? ⁵ Hint: Look at the white spots as letters.



⁴ From <http://library.thinkquest.org/J0110336>

⁵ From <http://library.thinkquest.org/J0110336>

Bunny or Duck?

Do you see a duck or a bunny in this picture?⁶



Impossible Triangle

At first glance, it just looks like a normal triangle, but take a closer look. Where does it end?⁷



⁶ From <http://library.thinkquest.org/J0110336>

⁷ From <https://www.illusionsindex.org/i/impossible-triangle>

Activity/Lesson 2: Watch the Colors Disappear

Let's try to make our own optical illusion. This illusion is called "watch the colors disappear" and it is taken from *Science Magic: Scientific Experiments for Young Children* by Alison Alexander and Susie Bower.

Follow the directions below:

Materials You'll Need:

- Crayons
- Scissors
- Cardboard
- Ruler
- Jam Jar Lid (mason jar lid)
- Large-eyed needle (wool needle is ideal)
- A piece of string about 3 feet long

1. Use the jam jar lid as a pattern to draw a circle on the piece of cardboard.
2. Cut out the cardboard circle.
3. Find the exact center of the cardboard circle by cutting a circle of the same size out of paper and folding it into quarters. Open it up; the point where the lines cross is the center. Using this paper as a guide, mark the center of the cardboard circle.
4. Now, divide the cardboard circle into six equal parts.
5. Color each section differently using colors of the rainbow – red, orange, yellow, green, blue, and purple.
6. Repeat step 5 on the disc's opposite side matching the colors on the back to those on the front.
7. With the needle or the point of the scissors, *carefully* make two small holes on either side of the circle's center point, half an inch apart.
8. Thread the string through the holes and knot the ends together to form a loop.
9. Put one finger in each loop and twist up the string by spinning your hands around. By moving your hands together and apart again, you can make the disc spin. What happens?

All the colors will seem to disappear as the disc spins and the disc will look as though it is white. When the disc is spinning, all the colors go around very fast. Because you see them all at the same time, your eyes can't separate the colors. Instead, your brain thinks the disc has no color at all and that it is white.

By the same token, you can see colors in a black and white disc as it spins. Follow the same steps above, except in step 4, divide your disk into 8 sections, and in step 5, color every other section black with a Sharpie (you need to color the sections in *really* well).

Spin the disc and see if you can see colors. In this instance, scientists believe that when the retina receives repeated flashes of white light for a short time, the optic nerves fire in patterns that your brain interprets as color. You can see color when no color exists.

Houdini on Tour – A Lesson in Geography

Wisconsin State Curriculum Alignment:

English Language Arts B.4.1 – Create or produce writing to communicate with different audiences for a variety of purposes

- Write nonfiction and technical pieces (summaries, messages, informational essays, directions, instructions, simple reports) that convey essential details and facts and provide accurate representations of events and sequences.

Social Studies A.4.2 – Locate on a map or globe physical features such as continents, oceans, mountain ranges, and land forms; natural features such as resources, flora, and fauna; and human features such as cities, states, and national borders.

Social Studies A.8.2 – Construct mental maps of selected locales, regions, states, and countries and draw maps from memory, representing relative location, direction, size, and shape.

Activities/Lessons:

- Activity/Lesson 1: Houdini on Tour
 - Materials needed:
 - World map (or a computer and Google Maps if you wish to do this on the computer)
- Activity/Lesson 2: You on Tour
 - Materials needed:
 - Pen or Pencil
 - Printed worksheet
 - Research materials (books, computer, etc.)

Background/History:

Houdini had only been touring American vaudeville theaters for a year when he left to perform on the vaudeville stages of Europe. Houdini still wasn't really famous at this point in his career. He was just one performer among many on the playbills. Houdini was yet to be a "headliner." This was the main reason that Houdini went to Europe – to make a name for himself so when he returned to the United States he could be the star of the show. Between 1900 and 1905, Houdini performed in England, Holland, France, Germany, and Russia. He challenged police officers or guards to chain him in such a way that he could not free himself . . . but he always did. When Houdini returned to the United States in 1905, he was an international star. He began a tour of the United States determined to become a famous star in America, too. Soon he was the top headliner in vaudeville. While he played American stages, he also traveled overseas to entertain audiences in Australia, Europe, and Canada.

Activity/Lesson 1: Houdini On Tour

Read the descriptions of the following five cities where Houdini performed. Find the cities on a world map.

1. Moscow, Russia

Dates performed: May 4 – July 4, 1903, at Establishment Yar (the name of the restaurant where he performed)

Houdini entered Russia under police surveillance. Officers under Czar Nicholas II had to approve Houdini's and all other performances in the country. Houdini told Moscow police that he was Catholic in order to perform at the Yar restaurant. Jewish people were not allowed to live or work in Moscow. He later impressed the secret police with an escape from a "Siberian Transport Cell," a safe-on-wheels used to take prisoners to Siberia. News of the 45-minute escape crossed the country.

2. Melbourne, Australia

Dates performed: February 7 – March 19, 1910, at the Opera House

Houdini performed straight jacket, packing crate, and milk can escapes for Melbourne audiences. Twenty thousand people packed the Queen Bridge to watch his *manacled* jump into the Yarra River. Between shows, Houdini got his biplane ready to fly at Diggers Rest, 20 miles away. He set an Australian record for the first flight on the continent on March 18, 1910. He flew his plane at an altitude of about 100 feet for 3 ½ minutes.

3. Appleton, Wisconsin, USA

Dates Performed: March 29 – April 3, 1897, at the Opera House

Houdini moved with his family to Appleton when he was a four-year-old boy in 1878 after his father, Samuel Mayer Weiss, became the city's rabbi. The Jewish community fired Rabbi Weiss, after five years of service. The Weiss family moved to Milwaukee and then New York City in search of work.

Houdini returned to Appleton as a small-time magician with the Rogers' Orpheum Stars in 1897. He challenged the local chief of police to lock him in handcuffs. Houdini freed himself from three pairs of cuffs within 5 minutes. Houdini hoped the stunt would encourage locals to buy tickets to see his act at the Opera House. Houdini returned to Appleton several times to visit childhood landmarks. He enjoyed bringing news of the city to his mother who lived with him in New York City. On such a visit in 1904, Edna Ferber interviewed him for the local newspaper. Ferber went on to become a noted novelist and play writer.

4. New York City, New York

Dates performed: Too numerous to list (almost each year throughout his 35 year career)

Houdini moved with his family to New York City when he was 13 years-old in 1887. He helped support his father's income by taking jobs at a messenger company, tool and die shop, and necktie factory. Houdini became a full-time magician with several different partners at the age of 18. He and his partners performed as the Houdini Brothers for area theaters. Houdini met singer and dancer Beatrice (nicknamed Bess) Rahner while performing at an amusement park called Coney Island in 1894. Bess became Houdini's wife and magic assistant.

Houdini performed in New York City every year throughout his career and featured all his famous escapes. He played the longest run of his career at the New York Hippodrome in 1918. For 19 weeks, Houdini performed escape magic and an illusion called the Vanishing Elephant in a show called *Cheer Up*, a patriotic extravaganza during World War I. Houdini introduced a séance act to his Hippodrome show in 1925. He played the role of “Zanetti,” a medium (a person who claimed to be able to communicate with the souls of people who had passed away). Houdini showed the audience a medium could trick their audiences to make them think that he or she had special powers.

The magician lived in a brownstone at 278 West 113th Street in the Jewish neighborhood of Harlem. He shared the home with his wife and several members of his family. He purchased a family plot in Machpelah Cemetery in Queens. Houdini was buried there in 1927.

5. Canada – Montreal, Quebec

Dates performed: September 4-9, 1911 (Orpheum Theatre); February 1-6, 1915 (Orpheum Theatre); April 20-May 2, 1925 (Imperial Theatre); October 18-23, 1926 (Princess Theatre)

Houdini introduced himself to an Orpheum Theatre audience with a packing case escape on September 8, 1911. He came back to the city with a full two and a half-hour show of magic tricks, escapes, and a spirit exposé in 1926. Between shows, Houdini lectured to students at McGill University about séance fraud. He invited several of the students to his dressing room at the Princess Theatre to talk about spiritualism (the belief that spirits of dead people could communicate with the living through a medium [like an interpreter] during a séance). One of the students asked Houdini if he could punch him in the stomach to test his strength. Houdini agreed, but the punches severely hurt the magician, who likely already suffered from appendicitis. Houdini finished his final show in Montreal in pain and left for another engagement in Detroit. He died of peritonitis in Detroit on October 31, 1926.

Online Variation:

Create a record (drop pins) of Houdini’s travels on Google Maps. Do some research and add one interesting fact you learned about that city.

Note: He visited New York City many times during his career. Use only one of the examples in the description on your Tour. Add ALL Montreal dates to your Tour.

Activity/Lesson 2: You on Tour

If you were a famous performer going on tour, in what cities would you most like to perform? List them here.

Choose one of the cities on your list and research it. Answer the following questions about it.
What country is the city located in?

What are the climate and landscape like?

For what industries or agricultural products is the city best known?

Are there famous attractions in the city you would like to visit?