

Bill Blagg's Behind the Magic



Streaming Performances
for Schools



TEACHER RESOURCE GUIDE

Bill Blagg's Behind the Magic

TABLE OF CONTENTS

About Playhouse Square	3
About the Show	4
Key Terms & Events	6
Pre-Show Activities	7
Post-Show Activities	15
Resources	20
Curriculum Standards Index	21
English/Language Arts	21
Fine Arts	23
Science	23
Social Studies	23
Technology	23



EDUCATION |

The lessons and activities in this guide are driven by the Ohio Learning Standards in English Language Arts (2017), Fine Arts (2012), Science (2019), Social Studies (2018) and Technology (2017).

21st century skills of creativity, critical thinking and collaboration are embedded in the process of bringing the page to the stage. Seeing live theater encourages students to read, develop critical thinking skills and to be curious about the world around them.

This Teacher Resource Guide includes background information, questions and activities that can stand alone or work as building blocks toward the creation of a complete unit of classroom work.

The lessons and activities in this guide are created and adapted by Davida Pantuso in partnership with Playhouse Square's Education Department. Excerpts from various Magic of Bill Blagg guides have also been included.



The Ohio Arts Council helps fund this organization with state tax dollars to encourage economic growth, educational excellence and cultural enrichment for all Ohioans.

Playhouse Square is supported in part by the residents of Cuyahoga County through a public grant from Cuyahoga Arts & Culture.

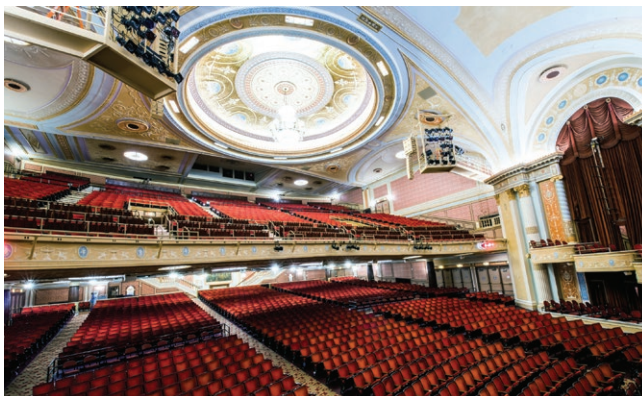
ABOUT PLAYHOUSE SQUARE



Playhouse Square is an exciting field trip destination! As the country's largest performing arts center outside of New York, the not-for-profit Playhouse Square attracts more than one million guests to 1,000+ shows and events each year. Five of Playhouse Square's 11 performance spaces are historic theaters that first opened in the early 1920s. By the late 1960s, they had been abandoned. A group of volunteers saved the theaters from being turned into parking lots. Now, all five historic theaters are fully restored.

You'll find Broadway, concerts, comedy, dance and family shows on Playhouse Square's stages, along with performances by Playhouse Square's seven resident companies: Cleveland Ballet, Cleveland International Film Festival, Cleveland Play House, Cleveland State University's Department of Theatre and Dance, DANCECleveland, Great Lakes Theater and Tri-C JazzFest.

When you visit, be sure to check out the GE Chandelier, the largest outdoor chandelier in North America, and the retro Playhouse Square sign with its 9-foot-tall letters!



ABOUT THE SHOW

Producer – Ryan C. Reed
Director – Rhett Guter
Cinematography – TC Productions and Miles Brooks
Lighting Design – M.O.T.C. Visuals
Set Design – David Starr

Behind the Magic is a virtual magic experience that features mind-blowing magic that will happen right in your classroom and in your hands! You'll join Bill on a journey inside his secret magic warehouse for a rare, exclusive look behind the man and the magic of Bill Blagg. This show is filled with incredible magic, illusions, and stories, plus some of the magic will even happen live in your hands! Created as a way to reach audiences during the 2020 Covid-19 pandemic, this performance originally aired live during the national shutdown to many grateful households.

This performance does feature some interactive tricks and activities, one of which **requires students to have a small number of playing cards** (that you won't want back). If cards are not available, a printable pdf of card images can be found on our resources page and printed for each student.

Paired with the performance, *Bill Blagg's Magic Science Lab* will have students on the edge of their seats as they discover how science creates magic right before their very eyes! During this digital arts engagement, students join Bill to explore how magicians use the "secret" five step process (The Scientific Method) to create their illusions. Together with Bill, they will use the "secret" five steps to make a person magically float in mid-air!

ABOUT BILL BLAGG

To say that Bill Blagg has had a magical life would be no exaggeration. From the moment he received his first magic kit in 1985, his world was never the same. His first professional magic book was given to him by his great-grandfather, which eventually led to building magic props with his dad. Bill launched his professional magic performing career in 1996, at the ripe age of sixteen. He became a stand-out in the magic community, due in part to his off-the-cuff personality and his high-energy performance style.

Bill's first big break occurred in 1998 when he became the youngest contestant to win the Adult Stage Competition at the Abbott Magic Get-Together. At that remarkable showcase, he debuted his now-signature effect, The Dancing Hank (featured in *Behind the Magic!*). Members of the audience, including many magicians, were astounded by his routine. Not only did he give the hank attitude and style, he made the hank dance in ways that were all but impossible! In his first major competition, Bill had joined the ranks of his idols.

After graduating from Carthage College (Kenosha WI) with honors, Bill hit the road to perform magic full-time. Today, he has one of the largest touring theatrical magic and illusion shows in the country and performs close to 200 shows a year! *The Magic of Bill Blagg LIVE!* Has been featured on ABC, CBS, NBC and FOX TV!

When Bill does have a free minute, he enjoys dinner with friends, maybe a movie, and he loves "just relaxing." Bill lives in Milwaukee, WI, with his wife Kristen and their dog Daisy. When he's not performing, he can be found at his magic workshop with his dad, working to create new illusions to thrill audiences.

Find out more at billblagg.com.



EXAMINING MAGIC

The fascination with tricks and illusions is universal and timeless. But what are magic tricks anyway? Both magic tricks and science experiments can leave people scratching their heads in amazement. Magic tricks are really just illusions that the magician knows the secret to, and many magic tricks are just simple science experiments. The magician adds a few magic words and makes others believe that something supernatural and mysterious is happening. Magicians are master showmen and work very hard to fool audiences by using misdirection and manipulating their senses. In the end, there's a scientific explanation for how the trick works that has nothing to do with magic or magic words.

Before you can examine magic in detail, however, it is helpful to let children discover the broadness of the topic. As you are introducing magic to the class,

brainstorm all the different types of activities that might fall under the category of magic.

Making things disappear, appear and change form is described as magic. Seeming to defy the “natural” order of the world (e.g., defying gravity, walking through walls) is called magical. Moreover, amazing feats that stun or surprise are deemed “magical.” You may soon find your list of magic acts getting quite lengthy! It is helpful to look at some synonyms for magic acts, such as illusions, tricks, stunts, and deceptions. Discuss with your students why something might be called a “stunt,” whereas something else is called an “illusion.” Decide how broadly you would like to define the category of magic and work with your students to create a working definition of the topic for the class.



KEY TERMS & EVENTS

The Scientific Method – the process of objectively establishing facts through testing and experimentation. It has five simple steps:

1. Ask a Question
2. Conduct Research
3. Form a Hypothesis
4. Perform the Experiment
5. Draw a Conclusion

Did You Know?

There is also an Engineering Design Process that also involves five steps and can be used in a similar way as the Scientific Method. The five steps include:

1. Identify a Problem
2. Brainstorm Solutions
3. Design a Solution
4. Build, Test & Evaluate and Redesign
5. Share Solutions with Others

Can you spot the differences? What's similar?

Attract – to make something move towards another thing

Balance – stability produced by even distribution of weight on each side of the vertical axis

Center of gravity – the point where the effect of gravity on an object is equal

Creativity – the use of the imagination or original ideas

Density – the mass of a substance compared to its volume, or how much matter is in a substance compared to how much space it takes up

Energy – the ability to cause change or move. Heat, electrical energy, light, sound and magnetic energy are all forms of energy.

Experiment – a scientific procedure to make a discovery, test a hypothesis or demonstrate a known fact

Force – the push or pull of an object with mass that causes it to change velocity

Gravity – an invisible force that pulls objects toward each other. On Earth, gravity pulls objects with mass downward toward the center.

Hypothesis – an educated guess about how something will work or behave

Illusion – something that produces a false impression of reality

Levitate – to float in air

Magnet – a rock or piece of metal that can pull certain types of metal toward or away from itself. Its force is called magnetism.

Misdirection – focusing attention on one thing in order to distract attention from another

Motion – the act of changing location from one place to another

Observation – the act of recognizing and noting a fact or occurrence, a record or description obtained

Pressure – how much force is acting over a specified area

Problem solving – the act or process of finding a solution to a problem

Reflect – bending or bouncing back an image from a surface

Repel – to force something to move away or apart

Showmanship – skill at entertaining, theatrical presentation or performance

Solution – a type of mixture where one substance is dissolved into another; a means of solving a problem

■ PRE-SHOW ACTIVITIES

A Magician's Codebook (grades 2-5)

The Ohio Learning Standards listed below are addressed in the following Pre-Show Activity:

English/Language Arts: L.2.4, RI.2.4, L.3.4, RI.3.4, L.4.4, RI.4.4, L. 5.4, RI.5.4

Science: 2.PS.1, 3.PS.3

A magician uses many scientific concepts to help create illusions or magic tricks. Help prepare your students for the magic show by discussing key terms and concepts that they might hear during the show. A list of words has been provided and can be defined as a group, or

students may research on their own. Have students write the definition and list an example of the concept or term. Students may also choose to draw a picture to explain the concept further.



Magician's Codebook

Magician's Code	Definition	Example	Picture
Attract			
Balance			
Density			
Energy			
Force			
Gravity			
Levitate			
Magnet			
Motion			
Pressure			
Reflect			
Repel			

Levitating Tricks (grades 2-5)

There are three main methods that magicians and illusionists use to cause objects to levitate, or float: magnets, density and illusions. Each method reveals a clue that can help the audience determine how the object is floating. This series of levitation tricks will allow

students to make objects levitate using each method. Students will also observe characteristics, or clues, that they can look for as they watch the show. The Levitation Graphic Organizer is provided to help students record their thoughts on each method.

Part I: Magnets

The Ohio Learning Standards listed below are addressed in the following Pre-Show Activity:

English/Language Arts: SL.2.1, SL.3.1, SL.4.1, SL.5.1

Science: 2.PS.1, 3.PS.3, 4.PS.2

Materials Needed:

- Multiple sets of ring magnets
- Magnet stands
- Play-Doh (alternate)
- Pencil (alternate)



Provide students with several ring magnets asking them to play for a few moments. As students are playing, ask them to write down some observations. Ask them if they can make magnets “push” each other. Can they make them “pull” each other? Why do they believe the magnets react the way they do? After a few moments, give them a magnet stand (see image). If you don’t have a magnet stand, you can make one by using a ball of Play-Doh and sticking a pencil in it. Challenge the students and see if they can make a magnet float. Once they figure out how, ask them to describe what is happening to make the magnet float (the magnets are repelling/pushing each other).

Explain that every magnet has two sides: a north pole and a south pole. Like-poles (meaning two souths OR two norths) do not like each other and *repel* away or push apart. If you hold two magnets together and they *attract* towards each other and stick together, then the poles were opposites. The magnetic force transfers magnetic energy, allowing the magnets to move each other or other objects without touching!

For other examples of magic tricks that use magnets, links are available on the resources page. Can students determine how the tricks are done?

Part II: Density

The Ohio Learning Standards listed below are addressed in the following Pre-Show Activity:

English/Language Arts: SL.2.1, SL.3.1, SL.4.1, SL.5.1

Science: 3.PS.1, 4.PS.1, 4.PS.2

This second activity uses density to make an object float. The clue that students will want to look for during the show is the use of liquids.

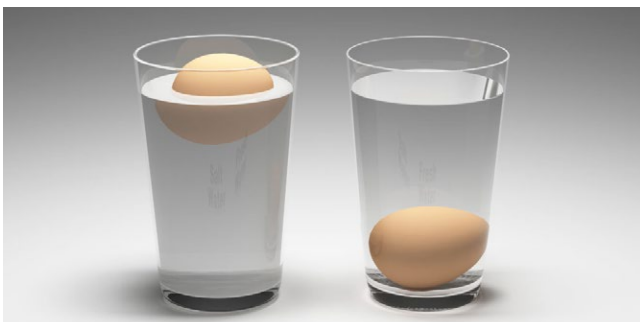
Materials Needed:

- Quart (liter) jar
- Tap water
- Scissors
- Ruler
- Masking Tape
- 1/2 cup salt
- Felt-tip pen
- Uncooked Egg
- Large Spoon

To prepare, label your salt dispenser with a “Magic Swimming Powder” sticker or tape and fill your jar half full of water. Because eggs have an air cell that become larger as they age, it is also a good idea to test the density of your eggs prior to beginning or they may float on their own. Testing can guarantee they will sink as desired for the first part of this activity.

Hold up an egg for the class to view, or pass a few around for observation. Together, or individually, hypothesize whether the egg will float if placed in water and why. Once a verdict has been decided, ask a student to gently place the egg in the water. The egg should fall to the bottom.

Now tell the class you’re going to use “Magic Swimming Powder” to make the egg float. Do they believe it will? Record their hypotheses again. Remove the egg from the jar using the spoon. Ask a student to pour a small amount of the magic powder, or salt, into the water and stir it up saying magic words of their choice, such as



“Abracadabra” or “Hocus Pocus.” Place the egg back in the water. Depending on the amount of salt added, the egg should still fall to the bottom or start to rise slightly in the water. Remove the egg again.

Ask another student to add the remaining powder to the water and stir it up. As a class, have everyone shout their magic words all together and drop the egg in. The egg will float! Ask your students to discuss the following:

How did the magic powder help the egg float?

What was created by mixing the powder in the water?

Why didn't the egg float without the powder?

After a few minutes of discussion, reveal that the magic powder was, in fact, salt! By mixing it into the water, you created a *solution*, which occurs when a solid is dissolved into a liquid. Specifically, you created saltwater, a solution made up of both salt and water. Can they name any other types of solutions?

Now explain that this trick works because of *density*. All objects are made of matter, and all matter floats or sinks depending on its density. Less dense substances float on more dense substances. The egg is denser than tap water, so it sinks. However, when the salt dissolves into the tap water, it maintains the total amount of mass of both. The egg floats in saltwater because the egg is less dense than the saltwater solution! Magic!

Advanced version:

For students who are already familiar with density, divide the class into groups of 4 and provide the materials above to each group. Ask them to use the scientific method, or engineering design process below, to determine how to make the egg float on their own.

ASK: What is the problem? What are we allowed to use to solve the problem? What do we already know?

IMAGINE: What are some solutions? Brainstorm ideas...

PLAN: Draw a diagram. Make lists of materials you will need.

CREATE: Follow your plan and create something. Test it out!

IMPROVE: What works? What doesn't?

Part III: Illusions

The Ohio Learning Standards listed below are addressed in the following Pre-Show Activity:

English/Language Arts: SL.2.1, SL.3.1, SL.4.1, SL.5.1

Fine Arts: Drama: 2.1PR

The third method magicians can use to make an object float is by creating illusions. The clue that students will look for is the use of other objects, such as mirrors or handkerchiefs.

Materials Needed:

- Cloth napkins or handkerchiefs
- Bread rolls
- Forks

Start this activity by performing the trick for the class. Place a piece of bread on a table and tell the class that you're going to make it levitate. With one hand, place the napkin over the bread while the other secretly sticks a fork in it under the cloth. Say a magic word and then use the end of the fork to lift the bread into the air, seemingly by magic! Can your students figure out how?

After some time, tell them that magicians might levitate the bread using illusion. Define illusion as "a thing that is wrongly interpreted by the senses." This means that, unlike the magnets and the egg, magicians use illusions

to make it *look* like the object is floating, when it actually is not.

Break students into small groups and provide each group with one napkin, one fork, and a bread roll so they can practice the trick on their own. Can they perform it without the other students seeing the trick? As they're working, have students watch this short video clip that demonstrates how they can make bread float: <https://www.youtube.com/watch?v=ghxF2wifdtI>. The magician provides an excellent explanation as to how he made the bread float.

Explain that sometimes magicians use misdirection to get their audience to look at something else for a moment so they can make a switch. Can the students come up with some movements to make their audience avert their eyes from the hand with the fork? *Showmanship* is also a big part of illusionary tricks. Ask students to come up with some ways to add flourish to their trick, e.g., giving the napkin a twirl, experimenting with different voice inflections or telling a joke. Encourage creativity! Have one student from each group perform their trick for the class.



Part IV: The Wrap-Up

The Ohio Learning Standards listed below are addressed in the following Pre-Show Activity:

English/Language Arts: SL.2.1, W.2.8, SL.3.1, W.3.8, SL.4.1, W.4.8, SL.5.1

Science: 2.PS.1, 3.PS.1, 3.PS.3, 4.PS.1, 4.PS.2

Now that students have had a chance to explore each of the methods, have them create a cheat sheet on levitating objects by completing the Levitation Graphic Organizer on the following page. Students should write the clue that they should look for when they see a levitating magic trick and explain why this method works

(magnetic poles repelling, density, misdirection, etc.). As students are watching the *Behind the Magic* and *Magic Science Lab* videos, ask students to write down tricks they see that would fall into these categories. Discuss as a group following the performance – did everyone find the same ones?



Levitating Graphic Organizer

	Method #1:	Method #2:	Method #3:
Clue to Look for			
Why it Works			
Tricks using this method			

A Magician's Secrets Revealed: Mirrors (grades 2-5)

The Ohio Learning Standards listed below are addressed in the following Pre-Show Activity:

English/Language Arts: SL.2.1, SL.3.1, SL.4.1, SL.5.1

Science: 5.PS.2

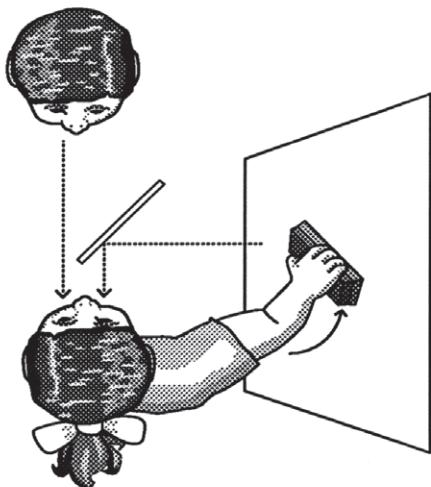
Disappearing acts are often very dramatic and memorable parts of magic shows. Magicians understand the way light bends and moves. They use their knowledge to their advantage and have added mirrors to their bag of tricks! There are many ways that magicians use mirrors to make people and objects disappear. This activity will explore one such method.

Materials Needed:

- White wall or flat surface
- Hand mirror

Split the class into pairs of two. Have one student in each pair sit so that a white surface or wall is on their right. Tell them to hold the bottom of the mirror with their left hand and put the mirror edge against their nose so that the reflecting surface of the mirror faces sideways, toward the white surface. Their partners should then sit just a few feet across from them.

While keeping the mirror edge against their nose, the student should angle the mirror so that their right eye sees just the reflection of the white wall, while their left eye looks forward at their partner's face (see diagram). Have the student move their right hand in front of the white surface as if using a blackboard eraser. They should see parts of their friend's face disappear!



It will help if the student sitting across those with the mirror are sitting very still against a plain, light-colored background. Both students should try to keep their heads as still as possible.

If a student is having trouble seeing the face disappear, one of their eyes might be stronger than the other. Ask them to try the experiment again, but this time switch the eye used to look at the person and the eye used to look at the wall (students would need to switch places so the white wall is on the left).

What's Going On?

Light reflects images off the mirror, allowing us to see the movement along the white wall. Normally, our two eyes see very slightly different pictures of the world around us. Our brains analyze these two pictures and then combine them to create a single, three-dimensional image.

Here, the mirror lets our eyes see two very different views. One eye looks straight ahead at another person, while the other eye looks at the white wall or screen and the moving hand. Our brains try to put together a piece that makes sense by selecting bits and pieces from both views.

The brain is very sensitive to changes and motion. Because the other person is sitting very still, it emphasizes the information coming from the moving hand, rather than the unmoving face. As a result, parts of the person's face disappear. No one knows how or why some parts of the face may remain, but the eyes and mouth seem to be the last features to disappear.

After students have had a chance to practice making their partner disappear, ask students how magicians might use mirrors in their shows. Ask students to pay attention while watching the performance to how the magician, Bill Blagg, might use mirrors to distort or make objects disappear in *Behind the Magic*. Discuss these tricks after viewing the show.

This activity was adapted from The Cheshire Cat lesson plan by explOratorium.edu.

■ POST-SHOW ACTIVITIES

Bill Blagg's Magic Science Lab (grades 2-5)

The Ohio Learning Standards listed below are addressed in the following Pre-Show Activity:

English/Language Arts: SL.2.3, SL.3.3, SL.4.3, SL.5.3

Science: 2.PS.1, 3.PS.1, 5.PS.1

Technology: K-2.DT.2.a, K-2.DT.2.b, K-2.DT.2.d, 3-5.DT.1.a

As a class, host a brief discussion about the magic show you just watched, Bill Blagg's *Behind the Magic*. What was everyone's favorite trick? Was there anything that surprised them? How did he DO that? Could students figure out any of the tricks?

Throughout this guide, we've talked about different methods magicians may use to *perform* their tricks – now Bill's going to walk us through how he *creates* them. Bill Blagg asks students to join him in exploring how magicians use science to create the impossible. Together with Bill, they will use the "secret" 5 step process (The Scientific Method) to make a person magically float mid-air!

As a bonus, Bill teaches a science-based magic trick students can do at home or in class – how to make a pencil float in the palm of their hand. To perform the trick in video #4, each student will need two pencils and one wide, flat rubber band.

Links to videos are provided with the performance access information. For assistance, please contact the Education Team at schoolprograms@playhousesquare.org or 216-348-7909.



Video #1 – Meet the Magic Man

Run time: 07:22

Video #2 – The Hook

Run time: 07:51

Video #3 – The Amazing Performance

Run time: 09:42

Video #4 – How to Make a Pencil Float

Run time: 08:32

Following the videos, test the knowledge students learned by asking the following questions:

How do magicians create magic tricks?

Why is understanding science concepts important to the creation of magic tricks?

Do magic tricks always work?

What can you do with an object when you find its center of gravity?

Describe the balancing device Bill engineered. What did it look like? Why do you believe it worked?

After everything Bill taught us, do you think the girl was really floating in mid-air?

Using the method they've learned, are there any magic tricks students may want to explore creating? Check out the resources page for links to additional magic tricks and fun they can revisit on their own.

Cracking Codes (grades 2-5)

The Ohio Learning Standards listed below are addressed in the following Pre-Show Activity:

English/Language Arts: L.2.4, W.2.8, L.3.4, W.3.8, L.4.4, W.4.8, L.5.4

Science: 2.PS.1, 3.PS.1, 3.PS.3, 5.PS.2

Pair this activity with the Key Terms and Events section and other activities provided in this guide, for an exciting way to assess understanding of scientific concepts learned throughout. Answers are provided on the resources page.

To discover the phrase on the next page, you'll need to crack the code! Fill in the blanks in the sentences on the following page, then match the letters to the numbers beneath them and transcribe them into the secret phrase for the big reveal!



Cracking Codes Phrase

“
 $\overline{21} \overline{2} \overline{17} \overline{18} \overline{13} \overline{15} \overline{14} \overline{4} \overline{5} \overline{22} \overline{12} \overline{4} \overline{25} \overline{18} \overline{5} \overline{12} \overline{10} \overline{18} \overline{12} \overline{8} \overline{14} \overline{24} \overline{12}$
 $\overline{5} \overline{13} \overline{18} \overline{4} \overline{22} \overline{13} \overline{4} \overline{10} \overline{4} \overline{16} \overline{14} \overline{9} \overline{21} \overline{12} \overline{8} \overline{4} \overline{16} \overline{14} \overline{24} \overline{22} \overline{15} \overline{2} \overline{12} \overline{18} \overline{14} \overline{22}$
 $\overline{5} \overline{13} \overline{18} \overline{4} \overline{22} \overline{12} \overline{18} \overline{16} \overline{18} \overline{13} \overline{2} \overline{3} \overline{3} \overline{6} \overline{14} \overline{16} \overline{10} \overline{8} \overline{2} \overline{12} \overline{10} \overline{4} \overline{2} \overline{3} \overline{3}$
 $\overline{24} \overline{22} \overline{15} \overline{4} \overline{9} \overline{5} \overline{12} \overline{2} \overline{22} \overline{15} \overline{2} \overline{22} \overline{15} \overline{2} \overline{17} \overline{9} \overline{4} \overline{4} \overline{2} \overline{22} \overline{15} \overline{12} \overline{8} \overline{4} \overline{22}$
 $\overline{10} \overline{4} \overline{5} \overline{8} \overline{2} \overline{12} \overline{12} \overline{4} \overline{9} \overline{18} \overline{12}$.” – *Bill Blagg*

1. If something is $\overline{1} \overline{2} \overline{3} \overline{2} \overline{22} \overline{13} \overline{4} \overline{15}$, its weight is evenly distributed on all sides.
2. All $\overline{21} \overline{2} \overline{17} \overline{22} \overline{4} \overline{12} \overline{5}$ have two sides, or poles, and will either $\overline{2} \overline{12} \overline{12} \overline{9} \overline{2} \overline{13} \overline{12}$ or $\overline{9} \overline{4} \overline{7} \overline{4} \overline{3}$ each other depending on how you hold them.
3. Many magic tricks are an $\overline{18} \overline{3} \overline{3} \overline{24} \overline{5} \overline{18} \overline{14} \overline{22}$, meant to trick someone into thinking something different than the reality.
4. Before you perform an $\overline{4} \overline{25} \overline{7} \overline{4} \overline{9} \overline{18} \overline{21} \overline{4} \overline{22} \overline{12}$, you'll want to first predict what will happen and write down your $\overline{8} \overline{6} \overline{7} \overline{14} \overline{12} \overline{8} \overline{4} \overline{5} \overline{18} \overline{5}$.
5. You can balance an item by finding its $\overline{13} \overline{4} \overline{22} \overline{12} \overline{4} \overline{9} \overline{14} \overline{16}$, or point where the effect of gravity is equal throughout. $\overline{17} \overline{9} \overline{2} \overline{11} \overline{18} \overline{12} \overline{6}$.
6. Magicians use many methods to make something $\overline{3} \overline{4} \overline{11} \overline{18} \overline{12} \overline{2} \overline{12} \overline{4}$, or float in the air.
7. $\overline{15} \overline{4} \overline{22} \overline{5} \overline{18} \overline{12} \overline{6}$ is a measure of how compact a substance is, or how much matter is in a substance compared to how much space it takes up.
8. Magicians use $\overline{13} \overline{9} \overline{4} \overline{2} \overline{12} \overline{18} \overline{11} \overline{18} \overline{12} \overline{6}$ and $\overline{7} \overline{9} \overline{14} \overline{1} \overline{3} \overline{4} \overline{21}$ to create their tricks, then use $\overline{5} \overline{8} \overline{14} \overline{10} \overline{21} \overline{2} \overline{22} \overline{5} \overline{8} \overline{18} \overline{7}$ to perform them!
9. When looking in a mirror, you can see your face as light $\overline{9} \overline{4} \overline{16} \overline{3} \overline{4} \overline{13} \overline{12} \overline{5}$ the image back at you!

Famous Magicians (grades 2-5)

The Ohio Learning Standards listed below are addressed in the following Pre-Show Activity:

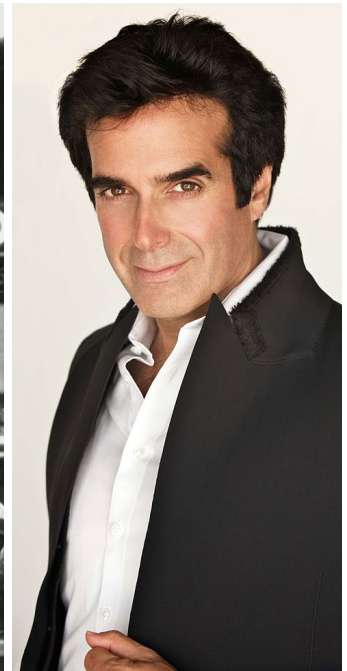
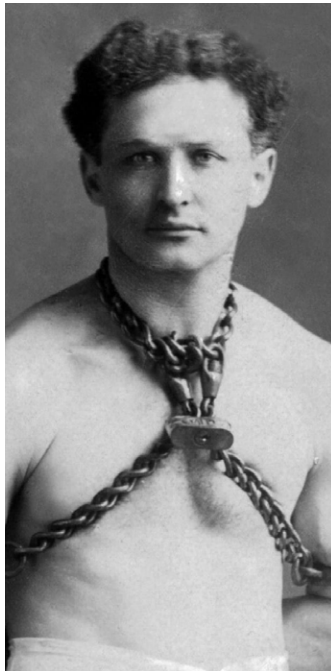
English/Language Arts: W.2.7, RI.3.5, W.3.7, RI.4.9, W.4.7, RI.5.6, RI.5.9, W.5.7,
Social Studies: 2.His.4

In *Behind the Magic*, the magician Bill Blagg gave a bit of background about how he got started. He mentioned how he considers himself lucky to be a magician and to come from a family who loved magic, how his first magic book belonged to his great-grandfather, and that his father taught him how to build his own props to use in his magic shows! He also mentioned some of the greats, like David Copperfield, who he admired greatly.

In this activity, students will research a famous magician, selecting from: Penn and Teller, Harry Houdini, Fay Presto, Richard Potter or David Copperfield. Divide the class into groups of five. Each group should research one of the five magicians or duos. Ask them to gather

the following biographical information: when they lived, where they were born, their most famous tricks, why they wanted to become a magician, and other interesting facts. How may their lives have shaped the world in which we live? Students should use at least two sources in their research and compile a list of sources for their report if age-appropriate.

Students will then create a one-pager using the information they found and share it with their group. After everyone has presented, discuss the similarities and differences found between these distinguished magicians.



Famous Magicians Organizer

Magician's Name:	
Biographical Information (ex. When he was born and died, where he lived, important life events, etc.)	Why they wanted to become a magician
Words to describe your magician	
Famous magic tricks	Interesting facts

RESOURCES

READING



Abracadabra: The Story of Magic through the Ages, by HP Newquist, Aleksey & Olga Ivanov

Everyday Magic for Kids: 30 Amazing Magic Tricks That You Can Do Anywhere, by Justin Flom

Magic Tricks with Coins, Cards & Everyday Objects, by Jake Banfield

Optical Illusions, by DK publishing

Science Magic Tricks, by Nathan Shalit

Famous Magicians Activity

Escape! The Story of the Great Houdini, by Sid Fleischman

Harry Houdini: Escape Artist, by Patricia Lakin and illustrated by Rich Geary

Richard Potter: America's First Black Celebrity, by John A. Hodgson

Who Was Harry Houdini? By Tui T. Sutherland, Who HQ and illustrated by John O'Brien
WEB

Levitating Tricks

21 Amazing Magic Tricks (magnets). <https://www.youtube.com/watch?v=yuhxZYTtbwg>

Easy Levitation: Floating Bread Magic Trick for Kids. <https://www.youtube.com/watch?v=ghxF2wifdtI>

Famous Magicians

"Harry Houdini (1874-1926)" *American Experience*. <https://www.pbs.org/wgbh/americanexperience/features/houdini-biography/>

David Copperfield Biography. <https://www.davidcopperfield.com/html/biography.html>

Fay Presto – Official Website. <http://www.faypresto.com/>

The Life and Magic of the Real Harry Houdini. <https://www.youtube.com/watch?v=XUhJLs3-i9M>

"N.H. Firsts: The Magical World of Richard Potter." *News from New Hampshire and NPR*, June 22, 2018. <https://www.nhpr.org/nh-news/2018-06-22/n-h-firsts-the-magical-world-of-richard-potter>

Penn & Teller Biography. <https://pennandteller.com/bio/>

Penn & Teller Historical Timeline: Past, Present and Future. <https://pennandteller.com/historic-timeline/>

GENERAL INTERNET RESOURCES



Curious Kids: How and Why Do Magnets Stick Together?" *The Conversation*, November 11, 2026. <https://theconversation.com/curious-kids-how-and-why-do-magnets-stick-together-101899#:~:text=It's%20only%20when%20you%20hold,magnets%20can%20pinch%20your%20skin>

Optical Illusions with Mirrors. <https://www.youtube.com/watch?v=FWV-LqZJR7w>

STEM Illusioneering Podcast and Videos – <https://podcasts.apple.com/us/podcast/illusioneering/id550879705>

Performance Card Trick

Printable Playing Card Images (pdf) <https://playhousesquare.org/blaggcards>

Cracking Codes Puzzle Activity

Answers: 1. balanced. 2. magnets, attract, repel. 3. illusion. 4. experiment, hypothesis. 5. center of gravity. 6. levitate. 7. density. 8. creativity, problem-solving, showmanship. 9. reflects.

Secret phrase: "Magic doesn't exist without science. We form the foundation scientifically of what we all understand and agree and then we shatter it."

CURRICULUM STANDARDS INDEX

English/Language Arts

Standard	Description	Grade	Activity	Page
L.2.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on a grade 2 reading and content, choosing flexibly from an array of strategies.	2	A Magician's Codebook Cracking Codes	7 16
RI.2.4	Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area.	2	A Magician's Codebook	7
SL.2.1	Participate in collaborative conversations about grade 2 topics and texts with diverse partners in small and larger groups.	2	Levitating Tricks, Parts I-IV A Magician's Secrets Revealed: Mirrors	9 14
SL.2.3	Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.	2	Magic Science Lab	15
W.2.7	Participate in a shared research and writing project (e.g., read a number of books on a single topic to produce a report; record science observations).	2	Famous Magicians	18
W.2.8	Recall information from experiences or gather information from provided sources to answer a question.	2	Levitating Tricks, Part IV Cracking Codes	12 16
L. 3.4	Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.	3	A Magician's Codebook Cracking Codes	7 16
RI.3.4	Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.	3	A Magician's Codebook	7
RI.3.5	Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.	3	Famous Magicians	18
SL.3.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.	3	Levitating Tricks, Parts I-IV A Magician's Secrets Revealed: Mirrors	9 14
SL.3.3	Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.	3	Magic Science Lab	15
W.3.7	Conduct short research projects that build knowledge about a topic.	3	Famous Magicians	18
W.3.8	Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.	3	Levitating Tricks, Part IV Cracking Codes	12 16

L.4.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.	4	A Magician's Codebook Cracking Codes	7 16
RI.4.4	Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.	4	A Magician's Codebook	7
RI.4.9	Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.	4	Famous Magicians	18
SL.4.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.	4	Levitating Tricks, Parts I-IV A Magician's Secrets Revealed: Mirrors	9 14
SL.4.3	Identify the reasons and evidence a speaker provides to support particular points.	4	Magic Science Lab	15
W.4.7	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	4	Famous Magicians	18
W.4.8	Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information and provide a list of sources.	4	Levitating Tricks, Part IV Cracking Codes	12 16
L.5.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.	5	A Magician's Codebook Cracking Codes	7 16
RI.5.4	Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.	5	A Magician's Codebook Cracking Codes	7 16
RI.5.6	Analyze multiple accounts of the same event or topic, noting important similarities and differences in the perspectives they represent.	5	Famous Magicians	18
RI.5.9	Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.	5	Famous Magicians	18
SL.5.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.	5	Levitating Tricks, Parts I-IV A Magician's Secrets Revealed: Mirrors	9 14
SL.5.3	Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.	5	Magic Science Lab	15
W.5.7	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	5	Famous Magicians	18

Fine Arts

Standard	Description	Grade	Activity	Page
Drama.2.1PR	Create movements and voices of characters to communicate feelings and ideas in dramatic or theatrical contexts (e.g., skits, puppetry, pantomime, improvisation and storytelling).	2	Levitating Tricks, Part III	11

Science

Standard	Description	Grade	Activity	Page
2.PS.1	Forces change the motion of an object.	2	A Magician's Codebook Levitating Tricks, Parts I & IV Magic Science Lab Cracking Codes	7 9 & 12 15 16
3.PS.1	All objects and substances in the natural world are composed of matter.	2	Levitating Tricks, Parts II & IV Magic Science Lab Cracking Codes	10 & 12 15 16
3.PS.3	Heat, electrical energy, light, sound and magnetic energy are all forms of energy.	3	A Magician's Codebook Levitating Tricks, Parts I & IV Cracking Codes	7 9 & 12 16
4.PS.1	When objects break into smaller pieces, dissolve, or change state, the total amount of matter is conserved.	4	Levitating Tricks, Parts II & IV	10 & 12
4.PS.2	Energy can be transferred from one location to another or can be transformed from one form to another.	4	Levitating Tricks, Parts I, II & IV	9, 10 & 12
5.PS.1	The amount of change in movement of an object is based on the mass of the object and the amount of force exerted.	5	Magic Science Lab	15
5.PS.2	Light and sound are forms of energy that behave in predictable ways.	5	A Magician's Secrets Revealed: Mirrors Cracking Codes	14 16

Social Studies

Standard	Description	Grade	Activity	Page
2.His.4	Biographies can show how peoples' actions have shaped the world in which we live.	2	Famous Magicians	18

Technology

Standard	Description	Grade	Activity	Page
K-2.DT.2.a	Observe and describe details of an object's design.	K-2	Magic Science Lab	15
K-2.DT.2.b	Demonstrate the ability to follow a simple design process: identify a problem, think about ways to solve the problem, develop possible solutions, and share and evaluate solutions with others.	K-2	Magic Science Lab	15

K-2.DT.2.d	Demonstrate that there are many possible solutions to a design problem.	K-2	Magic Science Lab	15
3-5.DT.1.a	Demonstrate how applying human knowledge using tools and machines extends human capabilities to meet our needs and wants.	3-5	Magic Science Lab	15