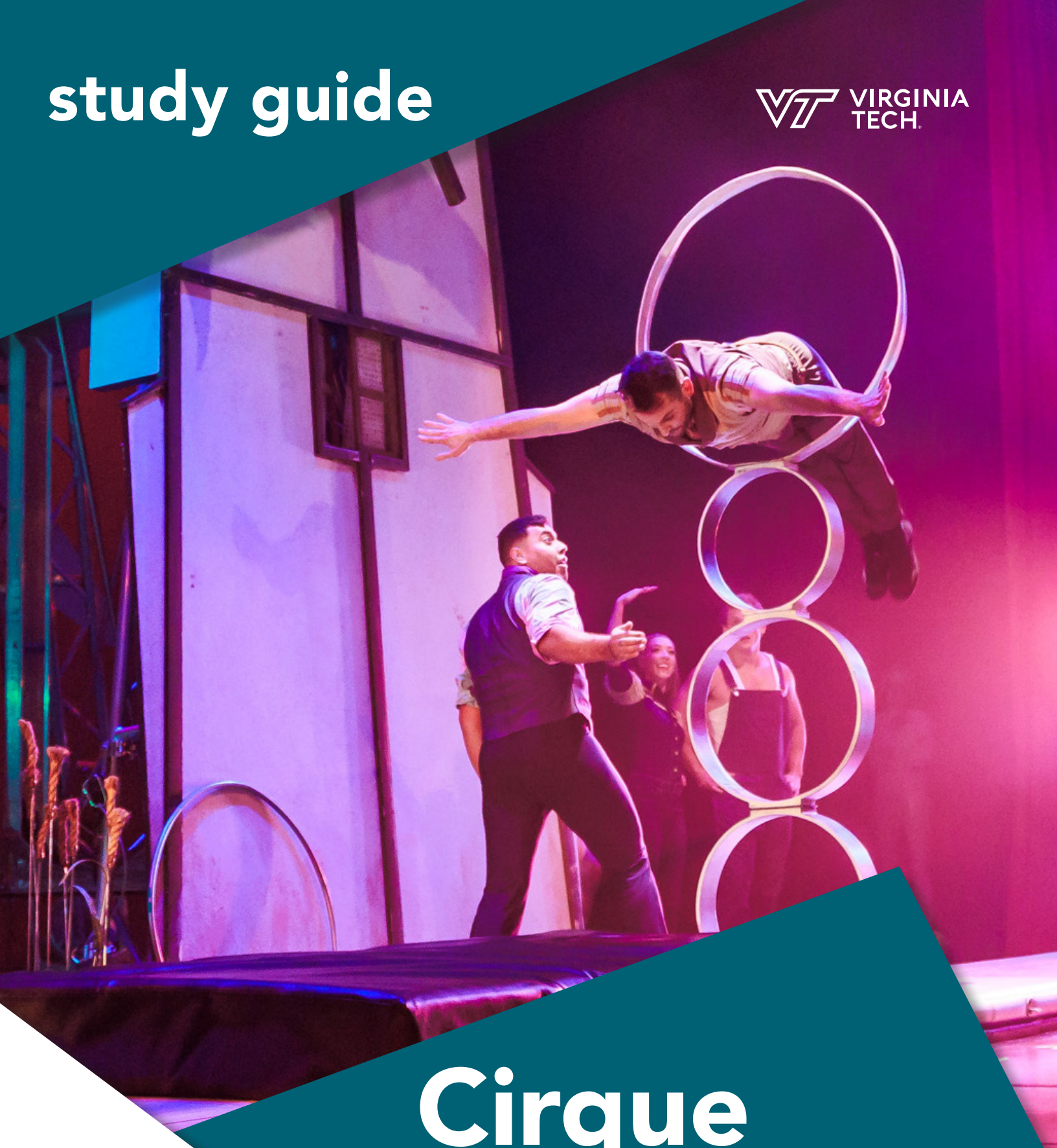
study guide

VIRGINIA TECH



Cirque Mechanics

MOSS ARTS CENTER

study guide

Cirque Mechanics
Zephyr: A Whirlwind of Circus

School-Day Performance
Wednesday, January 31, 2024,
10:30-11:30 AM

Recommended for students
in grades 3-7

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WE WANT EVERYONE TO **ENJOY THE SHOW**

Please prepare your students for their visit to the Moss Arts Center by practicing audience etiquette before you attend a live performance. The following guidelines will ensure that everyone can enjoy the show:

- Find your seat before the show begins. If you arrive after the show has started, the ushers may need to wait for an appropriate time in the performance to seat you. Always follow the instructions from the ushers.
- Turn off your cell phone and any other device that creates light or could make noise and distract others during the performance.
- Photography, audio, or video recording is not allowed inside the theatre.
- Food, gum, and beverages are not allowed inside the theatre.
- Keep the aisles clear at all times and stay seated so that those behind you can also see the stage. Please keep your shoes off of the seats.
- You can show appreciation and enthusiasm for the performance by paying attention and clapping at the proper time. Save personal conversations and questions for after the show.
- Some performers may invite you to clap, sing along, or even dance in your seat! We want you to have fun, but please make sure you are not ruining the experience for your neighbors. Use your self-management skills to control your voice and body.

ABOUT THE PROGRAM

ABOUT CIRQUE MECHANICS

Cirque Mechanics, inspired by modern circus, finds its roots in the mechanical and its heart in the stories of American industrial ingenuity. Its shows, imbedded in realism, display a raw quality rarely found in modern circus. Cirque Mechanics' signature style is wrapped in acrobatics, mechanical marvels, and a bit of clowning around.

ABOUT THE PROGRAM

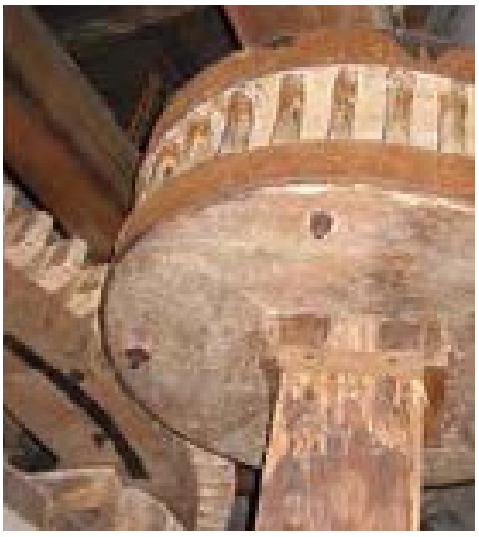
Zephyr was inspired by a family trip to a working grist mill nestled on a field in central England, where we met its sweet and charismatic owner, Nigel, and had a tour of the inside of the windmill. We were impressed and lulled by the symphonic whoosh of the windmill sails and the turning and cranking of the internal gears and mechanisms that milled the grist into flour. Nigel was like an athletic maestro conducting a symphony of sorts, but also like a mad mechanic running up and down the tower, adjusting levers, inspecting, and repairing. It was an energizing visit, which led us to imagine, explore, and wonder about the world inside and around the windmill as *Zephyr: A Whirlwind of Circus.*

— Cirque Mechanics

ABOUT WINDMILLS

A windmill is a structure that converts wind power into rotational energy by means of vanes called sails or blades. Early windmills were used for exactly what their name implies — they were mills run by wind (gristmills). Wind would spin the vanes, or blades, of the windmill, rotating a center shaft, which then spun a grain mill, usually made of large, flat stones, to produce flour and other grain products. The term is also extended to windpumps, wind turbines, and other applications. A windmill is a type of working engine.

The energy made by windmills can be used in many ways. These include grinding grain or spices, pumping water, and sawing wood. Modern wind power machines are used to create electricity. These are called wind turbines by engineers — or windmills, more commonly.



▲ *Gears and cogs inside an old windmill*

How Windmills Work

The blades or sails of the windmill are turned by the wind. Gears and cogs make the drive shaft inside the windmill turn. In a windmill used for making flour, this turns the grinding stones. As the stones turn, they crush the wheat (or other grain) between them.

ABOUT THE PROGRAM, CONT.

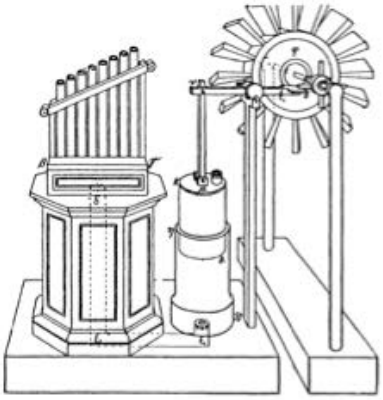
In a windmill used for pumping water, turning the drive shaft moves a piston. The piston can suck up and push out water as it moves up and down. In a windmill used for generating power, the drive shaft is connected to many gears. This increases the speed and is used to turn a generator to make electricity.

History of Windmills

Harnessing wind has been a part of human history since early civilizations. People used wind energy to propel boats along the Nile River as early as 5000 B.C. The earliest civilizations learned about the ability of wind to be transformed into mechanical force. Some of the earliest examples of these experiments were ships' sails. Some archeologists claim that they were first used even as far back as 6000-4300 B.C. in ancient Mesopotamia and after 3200 B.C. in Egypt. Redirecting the force of the wind not on sail canvas but on a mechanical wheel happened much later, in the 1st century A.D., when Greek engineer Heron of Alexandria first created a wind-driven device (not a windmill, but a musical instrument: an organ).

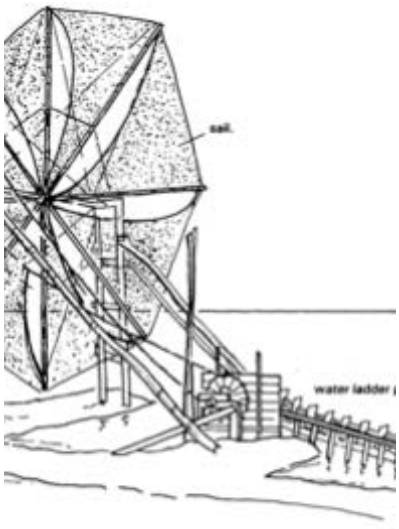
The first practical windmills were in use in Sistan, a region in Iran and bordering Afghanistan, at least by the 9th century and possibly as early as the mid- to late-7th century.

One of the first windmills was probably invented by a Greek, Tesibius, who lived from 285 to 222 B.C. The earliest known wind-powered grain mills with woven reed blades were used by the Persians in A.D. 500-800, and simple wind-powered water pumps were used by the Chinese in A.D. 1200. Around the 4th century A.D., the Tibetans and Chinese started using wind-driven prayer wheels, and the first horizontal windmills of limited capacity started appearing in Persia after the 7th century A.D. The most important use of the windmill was for grinding grain. In certain areas its uses in land drainage and water pumping were equally important.



▲ *Heron's wind organ*

▲ *Tibetan prayer wheel*



▲ *Ancient Chinese water pump*

ABOUT THE PROGRAM, CONT.

The windmill (turbine) has been used as a source of electrical power since Poul La Cour's mill, built in Denmark in 1890 with patent sails and twin fantails on a steel tower. La Cour developed an electricity-generating wind turbine and later figured out how to supply a steady stream of power from the wind turbine by use of a regulator, a Kratostate. By 1895, he had converted his windmills into a prototype electrical power plant.

Over the next 500 years, windmills gained many diverse applications beyond pumping water and grinding grain, including irrigation, drainage pumping, saw milling of timber, and processing tobacco, spices, cocoa, paints, and dyes.

▲ *Poul La Cour in front of his wind turbines*

Windmill Shapes

By the 19th century, when steam and electricity became dominant sources of power for industry, windmills were created in three basic shapes:

- **Post mills** had fixed sail wheels that could not rotate.
- **Tower mills** were built from stone or bricks and had rotating wooden caps that could rotate and take advantage of wind when it changes direction.
- **Smock mills** had strong bases and wooden bodies, which also featured rotating roofs.

▲ *Post mill*

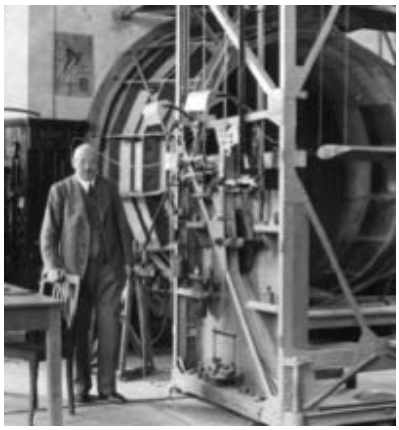
▲ *Tower mill*

▲ *Smock mill*

After the proliferation of electricity and internal combustion engines, the need for wind-powered machines reduced dramatically all around the world, but some wind-powered machines never became obsolete. For example, water pumps powered by wind are extremely self-sufficient,

ABOUT THE PROGRAM, CONT.

requiring small amounts of wind to start pulling water from deep wells and requiring very little maintenance.



Wind turbines that create electricity became much more attractive after the 1970s, when it was apparent that oil prices would get more and more expensive. Wind energy is a clean and renewable source of energy that comes from the wind. There are different ways to harness this energy, such as windmills. Wind energy can be used as a source of electricity, and it constantly replenishes itself. It does not require any water during production, causes minimum pollution, and operational costs are minimal.

The theory of wind energy was discovered in 1919 by a German physicist Albert Betz (pictured).

When You Watch the Show

- What types of windmills can you spot?
- What products do they generate?
- Can you spot a character that may represent the wind?
- What other symbols do you notice?
- Can you spot the character that represents the Industrial Revolution?

FUN FACTS!

1. The largest historic windmills in the world are in the Netherlands, near the town of Schiedam.
2. In 2021, wind turbines were the source of about 9.2% of total U.S. utility-scale electricity generation.
3. The first windmill in America was created in 1888 by Charles Brush in Cleveland, Ohio.
4. A collection of wind turbines in the same location is known as a wind farm.
5. Most wind turbines have three blades that can reach speeds of up to 200 miles per hour.
6. The largest wind farm in the United States is the Shepherds Flat Wind Farm in Oregon.
7. Modern wind turbines are complicated machines. One wind turbine can have as many as 8,000 different components.
8. A single wind turbine can produce enough electricity to power around 600 homes.
9. Wind energy can be an alternative to fossil fuels.
10. The largest wind turbine in the world is in Hawaii. It is 20 stories high and has rotors the length of an entire football field.

LEARNING ACTIVITIES

VISUAL ART

Key Terms

Whirligigs: Kinetic sculptures that interact with wind. The word whirligig derives from the Middle English words *whirlen* (to whirl) and *gigg* (top), or literally "to whirl a top." The first usage of the word appears around 1440 A.D. A whirligig is a whimsical object that moves or spins, like a pinwheel, weathervane, or spinning toy. They are usually colorful pieces of yard ornamentation and typically boast rural motifs and depict iconic, small-town tasks like herding sheep, churning butter, or harvesting corn. Their depictions of farm living and their interactions with wind inspired the costumes in the show and the playfulness of the acrobats with the machines.

Folk art: Art originating among the common people of a nation or region and usually reflecting their traditional culture, especially everyday or festive items produced or decorated by unschooled artists.

Outsider art: Art made by self-taught artists with typically little or no contact with the conventions of the art world.

Art Criticism

There are two famed American whirligig folk artists, Reuben Aaron Miller (1912-2006) and Vollis Simpson (1919-2013). Both described as American "outsider" folk artists, their kinetic sculptures have been viewed and enjoyed by millions at art museums and exhibits around the world.

Show students images of the artwork of Miller and Simpson. Ask them to respond to each artwork individually, and then to compare and contrast the different styles. Prompt students to use visual artistic vocabulary to analyze and interpret the works.

Photographs of whirligigs by R.A. Miller: Telfair Museums and New Georgia Encyclopedia

Photographs of whirligigs by Vollis Simpson: Wilson Whirligig Park

VIRGINIA VISUAL ARTS SOLS: *3.3b, 4.3b, 5.3b*

LEARNING ACTIVITIES, CONT.

About the Artists JIGSAW

1. Define the terms "folk art" and "outsider art" with students. Ask if they can think of folk art or outsider artists in their own community. Ask why these artists are important to our society.
2. Assign half of the students to read about R.A. Miller and the other half to read about Vollis Johnson. After reading about their backgrounds, ask students to identify how their upbringing, geography, life experiences, and culture may influence their art. Have students cite specific lines from the biographies and specific elements of the artworks to support their claims.
3. Pair students with a peer who read the biography of the artist they did not learn about and have them present their interpretation to one another.
4. Finally, ask a few students to share with the full class what they learned from their partner.

R.A. Miller

Reuben Aaron "R.A." Miller, a resident of Rabbittown, an unincorporated community north of Gainesville, Georgia, was one of the state's enduring self-taught artists noted for his "whirligigs," or metal cutout figures, and drawings, which typically feature animal or human figures and short inspirational messages. The best of his flat cutouts and drawn figures recall the expressive economy of such self-taught artists as Bill Traylor of Alabama.

Born on July 22, 1912 on the property where he lived for most of his life, Miller worked in cotton mills, farmed, and served as a preacher for the Free Will Baptist Church. When chronic eye problems began to limit Miller's activities, he started making whirligigs to pass the time.

Although Miller's early whirligigs sometimes featured mechanical figures, most were decorated with flat animal or human shapes cut from tin and painted in enamel. Miller typically attached these cutouts to horizontal wooden supports, ranging from standard two-by-two lumber to salvaged furniture arms and legs. Tin paddles were cut, painted, and attached to wooden cross forms or bicycle wheels to provide surfaces for the wind to catch. By the mid-1980s Miller's yard was a spectacle — a hilltop field of hundreds of spinning windmills. His animated environment attracted frequent visitors, including Athens, Georgia-based rock group R.E.M., who in 1984, with painter and filmmaker James Herbert, filmed a 20-minute video, *Left of Reckoning,* on Miller's hilltop.

After folk art dealers and collectors began to purchase Miller's inexpensive whirligigs in large quantities, the artist started to make and sell cutout figures independent of the whirligigs. The best of Miller's tin cutouts are gracefully abstracted and animated in gesture. His animal images

LEARNING ACTIVITIES, CONT.

range from bluebirds, chickens, pigs, and snakes to a variety of dinosaur types, inspired by nature programs on television. Human figures include red devils, angels, such American cultural icons as Uncle Sam and Elvis Presley, and less well-defined characters that sport hats, cigars, or red claws. Miller's most frequent image is a figure emblazoned with the words "Blow Oskar," a reference to the artist's cousin, who would blow his car horn while driving past Miller's property. Cutout shapes of churches, American flags, and crosses decorated with birds and angels also figure heavily in Miller's work. In later years Miller's popularity, combined with his failing eyesight, forced him to rely on assistants to paint his cutouts.

In addition to whirligigs and cutouts, Miller produced paintings and drawings in enamel or marker on masonite. These works include similar human figures, animals, and dinosaurs, which share space with such short inspirational messages as "Lord Love You" and are surrounded by simple decorative borders.

Miller's work has been included in such exhibitions as *Outside the Mainstream: Folk Art in Our Time* at the High Museum of Art in Atlanta (1988) and *Passionate Visions of the American South* at the New Orleans Museum of Art in Louisiana (October 1993-January 1994). Further exhibitions, the inclusion of his work in museums' permanent collections, and articles in such international publications as *Raw Vision* have contributed to Miller's status as an elder statesman among Georgia's self-taught artists.

Vollis Simpson

Vollis Simpson never called himself an artist, but the *New York Times* did. Upon his death in 2013, the *Times* described Simpson as "a visionary artist of the junkyard … who made metal scraps into magnificent things that twirled and jangled and clattered when he set them out on his land."

Simpson's monumental, fanciful, wind-driven creations — popularly called "whirligigs" — have been appreciated by millions of people in art museums and other venues. In 2013 they were named North Carolina's official folk art.

Simpson's fame came near the end of his life. He was born in 1919 to a farming family with 12 children. As a boy, he helped his father supplement the family income by moving houses. This somewhat unusual occupation called upon age-old techniques of fulcrum, leverage, and rollers, and the Simpson side business spanned the years of horsepower transitioning to automotive power.

He served in the Army Air Corps during WWII with duty on the South Pacific island of Saipan. The isolated troops struggled to keep uniforms clean, so Simpson experimented with rudimentary

LEARNING ACTIVITIES, CONT.

windmill technology using a junked B-29 bomber to power a large washing machine.

After the war, Simpson partnered with several friends to open a machinery repair shop. As the years passed, Simpson followed in his father's footsteps and developed a house-moving side to the business. During both jobs, he began to collect odd machinery parts, industrial salvage, transportation supplies, and other useful objects that he didn't want to go to waste.

After retiring at 65, he started tinkering around with his collection of odd parts. Using some of the same rigs he'd developed for moving houses, Simpson began constructing enormous windmills in his yard. They did not resemble the working windmills of grinding or irrigation use, but referenced the concepts of weathervanes and handcrafted whirligigs that are still seen locally on houses, fence posts, and barns.

The field of these whirligigs soon began attracting the attention of local people and, after the rise of the internet, visitors from out-of-state. Without any official advertising, Simpson's farm became one of Wilson County, North Carolina's top tourism destinations.

The whirligigs incorporate highway and road signs, HVAC fans, bicycles, ceiling fans, mirrors, stovepipes, I-beams, pipe, textile mill rollers, ball bearings, aluminum sheeting, various woods, steel rods, rings, pans, and milkshake mixers, and many more such materials form the support and moving parts.

Simpson cut decrepit road signs into one-inch and larger squares so that the whirligigs would be reflective at night.

Images inside the whirligigs are farm animals and people; references to Simpson's experiences, such as the many WWII-era airplanes; lumberjacks sawing wood; and a guitar player based on Simpson's son.

In 2010, a plan was announced to create the Vollis Simpson Whirligig Park in Historic Downtown

▸ ***VIRGINIA VISUAL ARTS SOLS:*** *3.3b, 3.3c, 4.3b, 4.3c, 5.3b, 5.3c*

LEARNING ACTIVITIES, CONT.

Wilson. Simpson died in 2013 at 94, but not before seeing the first of his creations installed in the park that bears his name.

Make Your Own Whirligig

Materials

- Printed template
- Scissors
- Glue
- Crayons, colored pencils, or markers
- Two-foot length of string

Brianstorm, Plan, and Create

Students create their own whirligig using the instructions linked in the teacher resources. Before they start drawing, have students write down or discuss with a peer the ways in which they will use color, shapes, and pattern. Ask students to predict how the motion of the whirligig will affect the artwork.

Present and Reflect

Students present their whirligigs to the full class or in small groups. Ask students to respond to their peers' artistic choices.

- What colors, shapes, and patterns do you notice?
- How does the motion change the artwork?
- How does the artwork make you feel? Why?

Ask each artist to reflect on their own artwork.

- How did your brainstorm and planning help you decide what choices to make?
- Did you stick to your plan, or did you improvise when you started to create? Why?
- What surprised you when you added motion to your whirligig?
- If you were to make another whirligig, what new artistic choices would you make? Why?
- What would you ask artists who have made whirligigs?

VIRGINIA VISUAL ARTS SOLS: *3.1a, 3.2b, 3.2c, 3.3b, 3.5a, 3.5b, 3.12a, 3.12b, 3.12c, 3.12d, 3.12e, 3.15, 4.1a, 4.2a, 4.2b, 4.3b, 4.5a, 4.5b, 4.12a, 4.12b, 4.12c, 4.12d, 4.12e, 4.12f, 4.15, 5.1a, 5.1b, 5.2a, 5.3b, 5.5a, 5.5b, 5.5c, 5.12a, 5.12b, 5.12d, 5.12e, 5.12f, 5.15*

LEARNING ACTIVITIES, CONT.

SCIENCE

Whirligig Lab

Materials

- Whirligig template
- Two meter sticks
- Graph paper
- Mylar ribbon, approximately 5 feet
- Five standard paper clips
- Scissors
- Stopwatch

Directions

PART I: Observe

Have students create a whirligig and observe its flight pattern using the template and observation table provided in the Whirligig Lollapalooza Teaching Guide linked in additional teacher resources.

PART II: Demonstrate

Guide students in a discussion of some of the concepts that govern falling objects. Begin by conducting a grade-level appropriate review of forces of motion. Demonstrate the concept of air resistance by dropping a flat paper with a paper clip attached to the center of the paper and ask students to record their observations. Lead a discussion based on their observations. See more detailed instructions for the demonstration and guiding questions in the Whirligig Lollapalooza Teaching Guide.

PART III: Formulate a Hypothesis and Collect Data

Have students formulate a hypothesis and complete the experimental setup. Next, students begin collecting data.

LEARNING ACTIVITIES, CONT.

PART IV: Extend the Experiment

Have students choose a variable to manipulate in their experiment and formulate a new hypothesis for how the responding variable will change. Have students record their procedure and design a data collection table before they conduct the experiment and record their findings. Students answer concluding questions based upon their experiment, provided in the Whirligig Lollapalooza Teaching Guide.

PART V: Challenge

Have each student, pair, or group design a whirligig that will have the longest flight time on average for three trials. Provide two standard-size sheets of paper: one for practice and one for the competition. Whirligigs must be dropped from the same height (6.5 feet). The whirligig with the longest average flight time wins!

VIRGINIA SCIENCE SOLS: *4.1a, 4.1b, 4.1c, 4.1d, 4.1e, 4.1f, 5.1a, 5.1b, 5.1c, 5.1d, 5.1e, 5.1f, 5.2a, 5.2b, 5.2c, 5.2d, 5.3a, 5.3b, 5.3c, 5.3d, 5.3e, 5.9a, 5.9b, 5.9c, 6.1a, 6.1b, 6.1c, 6.1d, 6.1e, 6.1f , 6.9a, 6.9b, 6.9f, PS.1a, PS.1b, PS.1c, PS.1d, PS.1, e, PS.1f, PS.8a, PS.8b*

LEARNING ACTIVITIES, CONT.

Wind Energy Research, Inquiry, and Lab

1. As a full class, review the concept of wind energy and explore how wind turbines harness wind as an energy source — see the Energy 101 video linked in additional teacher resources.
2. Next, in lab partners or groups, have students explore the "Wind Explained" section of the U.S. Energy Information Administration website and develop their own quiz questions based on each section.
3. Collect the questions from each pair or group and ask the questions aloud to the class. Use this formative assessment to determine gaps in knowledge and review those concepts either in the moment or in future lessons.
4. Next, present lab groups with the challenge of creating the most efficient wind turbine.

Required Materials:

Tea bags (with strings)
Hair dryer or small fan
Stopwatch or timer

Optional Materials:

Bendable wire
String
Paperclips
Rubber bands
Toothpicks
Aluminum foil
Plastic sheets
Wood dowels
Cardboard
Binder clips
Paper fasteners
Clothespins

LEARNING ACTIVITIES, CONT.

Wind Turbine Lab Directions

1. Divide the class into teams of two to four. Hand out the Design Your Own Wind Turbine worksheet from TryEngineering (included in the Additional Resources for Teachers section at the end of this guide), as well as some sheets of paper for sketching designs.
2. Review the engineering design process, design challenge, criteria, constraints, and materials. If time allows, review "Real World Applications" prior to conducting the design challenge.
3. Before instructing students to start brainstorming and sketching their designs, ask them to consider the following:
    - Number of blades
    - Shape of the blades
    - Strength of the blades
    - Direction the windmill sits: can be vertical or horizontal
    - Efficiency and not spending all of your "money"
4. Provide each team with their materials. Explain that students must develop a wind turbine from everyday items. The turbine must have a rotor shaft around which to wind up the given weight (tea bag), and it must be freestanding (no human interaction).

    Option: Assign each team an imaginary $5 budget for materials. See suggested costs for all materials provided in the "Activity Instructions and Procedures" section of TryEngineering lesson plan in the additional teacher resources. Have students calculate the efficiency of their turbine by dividing the cost of materials by the time taken to lift the weight.
5. Announce the amount of time they have to design and build (one hour recommended). Use a timer or an online stopwatch (counting down) to ensure you keep on time. Give students regular time checks so they stay on task.
6. Students meet and develop a plan for their wind turbine. They agree on the materials that they will need, write/draw their plan, and present their plan to the class. Teams may trade unlimited materials with other teams to develop their ideal parts list. Teams build their designs.
7. Test the wind turbine designs by holding a hair dryer or fan (set at medium speed) a minimum of three feet away from the turbine blade. Use a timer to time how long it takes for the weight (tea bag) to be lifted six inches. The goal is to lift the teabag in one minute or less. Teams should document the time it took for their turbine to lift the teabag.
8. Students evaluate their team's results on their student worksheet. If time permits, discuss their reflections as a full class.

VIRGINIA SCIENCE SOLS: *4.1a, 4.1b, 4.1c, 4.1d, 4.1e, 4.1f, 5.1a, 5.1b, 5.1c, 5.1d, 5.1e, 5.1f, 5.2a, 5.2b, 5.2c, 5.2d, 5.3a, 5.3b, 5.3c, 5.3d, 5.3e, 5.9a, 5.9b, 5.9c, 6.1a, 6.1b, 6.1c, 6.1d, 6.1e, 6.1f , 6.9a, 6.9b, 6.9f, PS.1a, PS.1b, PS.1c, PS.1d, PS.1, e, PS.1f, PS.8a, PS.8b*

LEARNING ACTIVITIES, CONT.

LANGUAGE ARTS

Zephyrus and Flora: Analyzing and Reimagining the Myth

Over the course of multiple class periods, students examine different versions of the myth of Zephyrus and Flora, analyze the symbolic nature of the myths, and discuss how various retellings impact the overall theme. Offer students the opportunity to reimagine the myth through theatre and have their peers ask questions about their narrative and artistic choices.

Myths

Myths are stories that are based on tradition. Some may have factual origins, while others are completely fictional. But myths are more than mere stories, and they serve a more profound purpose in ancient and modern cultures. Myths are sacred tales that explain the world and humans' experiences. Myths are as relevant to us today as they were to the ancients. Myths answer timeless questions and serve as a compass to each generation. The myths of lost paradise, for example, give people hope that by living a virtuous life, they can earn a better life in the hereafter. The myths of a golden age give people hope that there are great leaders who will improve their lives. The hero's quest is a model for young people to follow as they accept adult responsibilities. Some myths simply reassure — such as myths that explain natural phenomena as the actions of gods, rather than arbitrary events of nature.

Analyzing the Myth

Read: As a class, read the first version of the myth of Zephyrus and Flora (page 20).

Analyze: Ask students to analyze the character of Zephyrus as a symbol. What characteristics does Zephyrus share with the element of wind? Ask students to analyze the character of Flora. How is she portrayed? How does Zephyrus affect her? Have students explain what this version of the myth reveals about society's understanding of nature and humanity. How are the characters symbolic of nature? How are the natural elements symbolic of human qualities?

Respond: In a quick write, students consider who has power in the myth, where that power comes from, and what this myth might reflect about society's beliefs about nature, humanity, gender, relationships, and more. It can be helpful to project a long list of questions for them to consider. Have a few students share what they wrote about with the class.

Read: Student groups of four to six students read alternate versions of the myth (page 21).

Analyze: Ask students to analyze the characters in this version of the myth and explain how it changes the theme or overall message of the myth.

Present: Each group acts out the version of the myth they were assigned for the class. Remind them to make choices that clearly demonstrate how this version differs from the first version of the myth.

LEARNING ACTIVITIES, CONT.

Reimagine: Each group reimagines their version of the myth. They can change the setting (time, place, location); they can alter the characters' personalities, mindsets, or decisions; they can provide a backstory to reveal how and why characters make the choices they do; etc. After presenting their reimagined myth, have the class respond with feedback about what they enjoyed about their new version of the myth, and explain how the group's choices changed the theme or overall message.

First Version of the Myth of Zephyrus and Flora

In ancient Greek mythology, the gods and goddesses were believed to control every aspect of nature and the world around them. Among them was Zephyrus, the gentle god of the west wind, and Flora, the goddess of flowers and spring.

According to the myth, the two fell in love, and their story became a symbol of the changing seasons and the arrival of spring.

One day, as Zephyrus was blowing his gentle breeze through the fields, he spotted Flora dancing among the flowers and was immediately captivated by her beauty.

Zephyrus was determined to win the heart of Flora, but he knew he had to be careful. Flora was not easily won over, and he didn't want to scare her away. So he began to court her in secret, sending her fragrant breezes that carried the scent of the flowers she loved and gently blowing her hair and dress as she danced in the fields.

Over time, Flora began to notice Zephyrus' presence more and more, and she found herself drawn to his gentle, romantic gestures. Zephyrus continued to woo her with his soft breeze and sweet fragrances until finally, she agreed to be with him.

Zephyrus and Flora's love story had a profound impact on the world around them. As they danced and sang together, the flowers began to bloom more brightly, and the birds sang more sweetly. Zephyrus' gentle breeze carried the scent of Flora's flowers to every corner of the world, spreading joy and beauty wherever it went.

As their love grew stronger, Flora and Zephyrus had a child together, a beautiful boy named Carpus, who became the god of fruit. Carpus was a symbol of their love and the bounty it produced, and his fruit was said to be the sweetest and most delicious in all the land.

LEARNING ACTIVITIES, CONT.

Alternate Versions of the Myth

1. Flora Rejects Zephyrus

In Ovid's version of the myth, Zephyrus falls in love with Flora, the goddess of flowers, and asks her to be his bride. Flora rejects his proposal, which makes Zephyrus so upset that he goes on a rampage and destroys all the flowers in the world. To make amends, he creates a new flower, the anemone, which he presents to Flora as a symbol of his love.

2. Flora Is Abducted

In Nonnus' version of the myth, Zephyrus kidnaps Flora and takes her to his palace in Thrace. Flora is unhappy in her new surroundings and longs to be free. Eventually, she manages to escape from Zephyrus and returns to her own domain. The story has a happy ending, as Flora finds a new love, the god of the west wind, Favonius.

3. Flora Is a Mortal

William Morris, the famous Victorian poet and artist, wrote his own version of the myth in his epic poem, *The Earthly Paradise.* In Morris' version, Zephyrus falls in love with a mortal woman named Flora, rather than the goddess of flowers. He tries to woo her, but Flora is not interested in his advances. Zephyrus becomes despondent and turns to alcohol to ease his sorrow. In the end, he dies of a broken heart, and Flora is left to mourn his passing.

4. In Other Medieval Versions

In medieval versions of the myth, Zephyrus and Flora are portrayed as husband and wife. They live together in a beautiful garden, which is filled with flowers and birds. Zephyrus is seen as a benevolent figure who brings the spring winds to help the flowers bloom, while Flora tends to the garden and makes sure that everything is in order.

VIRGINIA SOLS: *6.1a, 6.1c, 6.2b, 6.2d, 6.2e, 6.5a, 6.5d, 6.5f, 6.5g, 6.5h, 6.5l, 7.1a, 7.1b, 7.1c, 7.1d, 7.1e, 7.2a, 7.2b, 7.2c, 7.5a, 7.5f, 7.5g, 7.5h, 7.5k, 7.5l*

ADDITIONAL RESOURCES FOR TEACHERS

Websites

Whirligig Lollapalooza Teaching Guide

Video: Energy 101: Wind Power

U.S. Energy Information Administration: Wind Explained

TryEngineering Lesson Plan: Working with Energy

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WHAT TO KNOW BEFORE YOU GO

Changing Your Reservation

If you cannot attend or your party turns out to be smaller than the number of tickets you have reserved, please inform the Moss Arts Center as soon as possible by contacting Kari Heistad at kheistad@vt.edu so that Moss staff can release your tickets to those on the waiting list.

Accessibility

The Moss Arts Center is committed to being accessible to all of our patrons. Patrons with disabilities and their companions are accommodated through wheelchair seating, parking, and other special requests throughout the center at all levels. Assisted listening devices are available. Service animals are permitted. Sign interpretations and large-print programs are available with advance notification. If you or your students have questions regarding accessibility or would like assistance, please contact Jamie Wiggert at wiggertj@vt.edu.

Drop Off

The bus drop-off location is on the Alumni Mall side of the Moss Arts Center, located at 190 Alumni Mall on the Virginia Tech campus. Drivers may pull their buses into the driveway loop directly in front of the center. Staff will be on site to assist. Recommended arrival time is 15-30 minutes before the start time of the performance.

Parking For Cars And Vans

Those driving cars and vans may park in the North End Center Garage (300 Turner Street NW), which is one block from the Moss Arts Center's Turner Street entrance. A valid university parking permit, a validation from one of the retail tenants, or payment of the daily fee is required to park in the North End Center Garage.

Parking For Buses

Bus staging is located in the upper section of the Chicken Hill lot (Football Lot 5) on the Virginia Tech campus. The lot entrance is on Southgate Drive, opposite Sterrett Drive. Parking passes will not be required for buses. For more information about parking at Virginia Tech, please visit parking.vt.edu. Please note that buses are not permitted to park adjacent to the Moss Arts Center's Turner Street entrance.

WHAT TO KNOW BEFORE YOU GO, CONT.

Checking In

When you arrive at the center, please check in with Moss Arts Center staff to confirm that your party has arrived. Staff will be on site to assist seating your group, directing you to restrooms, and answering any questions you may have.

Pick Up

It is recommended that buses arrive back at the Moss Arts Center 15 minutes before the end of the performance. Following the performance, please remain in your seats; school groups will be dismissed by Moss Arts Center staff to ensure a smooth and speedy departure for all. Staff and volunteers will assist school groups in meeting their buses in the center's Alumni Mall driveway.

Feedback

Following the performance, you may receive an email requesting feedback on your group's experience. Please make time to respond, as doing so could significantly improve the Moss Arts Center's PK-12 programs for you and future visitors.

For More Information About Moss Arts Center Programs

Please subscribe to the Moss Arts Center's email list and join the list for school-day performances and PK-12 programs.