

ALWAYS FREE

THEATRE IS AWESOME!

# GUS GOES GREEN: A STEM ADVENTURE

BRIGHT STAR TOURING THEATRE

WWW.BRIGHTSTARTHEATRE.COM

## About our show!

Gus, or in this case our really big dog puppet is fascinated by the world around him. He whisks your audience on an around-the-world adventure that teaches valuable lessons about taking care of the earth through recycling, making smart choices with resources and other simple things that young people can do to make a big difference!

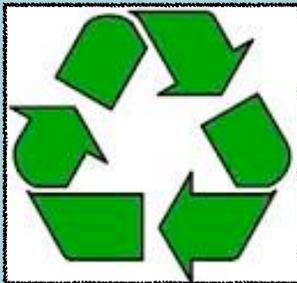
## STEM! USING SCIENCE, TECHNOLOGY, ENGINEERING AND MATH IN THE CLASSROOM

We wanted to utilize STEM education in our production to empower young audiences to innovate, solve problems and think critically about the world around them. Most of the fastest-growing careers around the world are STEM-related. Innovation in engineering and technology are some of the biggest factors influencing economic growth in our country. If we can encourage young people to use STEM in the classroom, who knows what amazing changes they can make!



### A STEM PROJECT!

1. Gather recyclable items (cans, plastic bottles, paper, etc).
2. Using **technology** (internet, online articles, etc), research how long these household items last if they are thrown in the ground instead of being recycled (i.e. a plastic bottle takes an average of 450 years to break down).
3. Using **math** add up the years these items will last in the ground if they are not recycled.
4. Have students guess (or hypothesize for older grades) how these items could effect plants and animals if there were released into the environment. That's **science!**
5. Have students imagine a machine or technology that could make it easier for people to recycle. Have fun with this! What would a recycle-bot look like? How could we use **engineering** to make recycling easier?
6. Follow up: Brainstorm how we can all use less stuff- grocery sacks, plastic water bottles, paper goods and more!



**RECYCLING:** Annually, Americans produce enough trash to circle the Earth 24 times. Did you know that recycling one can saves enough power to listen to a whole album on your iPod; 100 cans lights up your bedroom for two whole weeks.



**SAVING ELECTRICITY:** Stop and turn off electronics when you're done with them. CFL Light bulbs use 75% less electricity then traditional lights while lasting ten times longer! American schools spend \$6 billion in electricity each year.



**SAVING WATER:** A family of four uses around 400 gallons of water every day. a faucet that drips a drop of water every second will use 3,000 gallons of water over the course of a year.

# EARTH



## FACTS!

**Age:** 4.5 million years old

**Radius:** 3,959 miles

**Population:** Over 7 billion

**Distance to sun:**  
92,960,000 miles

**In our Line up:** We're the third planet from the sun.

**Did you know?** It's the fifth largest planet in our Solar System

**H2O:** The earth is 71% water. The Pacific Ocean alone covers 60 million square miles.

## Technology Ideas!

*Ways to present ideas depending on the resources at your school.*

Can your students create a short news broadcast about an environmental issue they see in their school environment? Can the broadcast be shown across the school or perhaps at a PTA Meeting? If the resources don't exist, can they create a blog entry about the problem and share it with social media friends? Or even present their ideas in front of the school or at a PTA meeting!

# Solving the Earth's Problems--one community at a time!



## LET'S EXPLORE A REAL WORLD PROBLEM

Weather clearly has a big role in our world--especially as climate change continues to shift the weather patterns. How can we use weather to help our world?

1. Maybe discovering ways to save water from rain would have a lasting effect in our immediate environment?
2. What are some ways that we could capture rain water and what are things we could do with it once we've captured it?
3. If you live in a cold area, what are some things we can do with snow? Snow is incredibly heavy and composed of water--do either of those things expand the possibilities we could use snow for?
4. Would we be able to use this invention year around--even when there's no snow available?
5. What tools are needed to create your rain/snow/ climate contraption and how could possible would it be to put this thing to use?

## MOVE MOUNTAINS!

Supply your students with a small sheet of wax paper and two graham crackers. Ask them to line them up side-by-side this represents two tectonic plates. By getting the edges wet and pushing these two crackers together the weakened area begins to buckle--just like how our mighty mountains were formed, when you're done building mountains--dig in and eat up!

## EIGHT CLASSROOM ACTIVITIES!

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\*Grab some bags and have the class help to clean up an area around the school or in a nearby park or driveway.

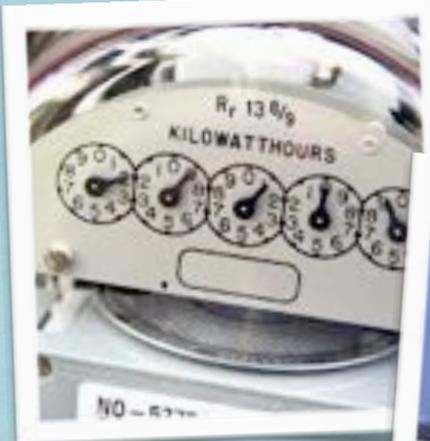
\*Plant a tree or landscaping at the school. We know of some schools that replaced all their landscaping with edible herbs and fruit/nut bearing trees over time. This helps to teach young people about growing seasons, local food, healthy eating and much more.

\*Have a classroom or school wide poster contest addressing ways young people can help save the planet.

\*Start a small herb or vegetable garden in your classroom.

\*For older grades challenge them to monitor the electric meters at their homes over the course of a week or a month. See who's using the most electricity in the house and come up with ways as a class that can help curb such usage.

# E \* N \* E \* R \* G \* Y



*Electric meters on our homes and buildings can provide a lot of information about the amount of energy we use.*



*What kind of power supply is feeding your communities needs? A coal plant? Nuclear? Are there things being done in your community to bring greener energy solutions?*

\*Lower the blinds when the sun is blasting into your classroom--this helps to maintain temperatures.

\* Have students help with recycling and making decisions about the environment and resources at the school. Consider having a "lights out" day, or even an hour! Have students figure out how much energy they are saving by making small changes.

\*Have your older students research various environmental disasters around the globe. How did some particular event change the landscape in that area--how's the area today? Are there still ramifications of this disaster? (Some ideas are the BP Oil Spill, Chernobyl, Exxon Valdez, etc).

## ENGINEERING SOLUTIONS



Have your students think about one of the problems talked about in the show. Then have them imagine a device that would work to solve this problem. Maybe something that removes plastic from our oceans or delivers cleaner energy to the planet.



Have your students problem solve which solutions would work best to grow plants. Using a range of products have them test on identical plants and see which get the best results from the plants.

### STEM PROJECT

#### For Older Grades

Your classroom is a small village that's desperately in need of food. What are the most effective things your villagers (students) would need to ensure healthy crops that could restore food security to your village? You can even provide a range of soils, seeds, containers, odds and ends and have them brainstorm the solution.



## YOU CAN DO THIS TOO!

**Where to start:** Our actors started out playing and telling stories when they were young -then they decided to study acting in school. Now they are pros! Here are some ways you can start doing theatre right away!

**In School!** Does your school have plays or musical performances? This is a great place to start.

**In Your Community!** Many towns have community theaters or local acting groups. See if you can try out!

**Start Something!** If your school doesn't have a drama club or a theatre club, talk to your favorite teacher about how you might be able to start one.

**At Home!** Get together with friends, cousins, brothers and sisters and make your own play. You can make up plays based on your favorite books and stories. Invite family and friends to see your performance.

### Be an Artist!

There are lots of jobs in the theatre besides acting. There are people who paint the sets, make costumes, write plays and more. So get the most from your art and English classes!

## Before, During and After the Play...



### BEFORE YOU SEE THE PLAY...

Attending the theatre is very different from watching TV or going to the movies. For one thing, the actors are real people who are performing right then and there. They can see and hear everything that happens in the audience. Because of this, YOU are an important part of the play and its important to do your job as an audience member well. Here are some tips before you see the play.

1. Please be quiet and respectful so everyone else around you can hear what's happening and so the actors can do their job.
2. If something is funny, it is okay to laugh!
3. The actors may ask you to participate. Don't be afraid to respond, ask a question or volunteer!
4. Keep your hands to yourself and your eyes up front.
5. If you like the play, be sure to clap at the end.
6. Have fun! Enjoy yourself!

## FUN FACTS ABOUT THEATRE!

After a play is over and everyone goes home, there is always a light left on backstage. It's called a ghost light!

The oldest play that is still around was written by an Ancient Greek named Aeschylus. It's almost 2500 years old!

The longest performance on stage ever was over 23 hours long! It happened in New Jersey in 2010.

William Shakespeare is a famous playwright. He wrote 37 plays and is still quoted by many people. There are 157 million google pages that mention him--the most of any famous person ever!

In theatre, it's considered bad luck to tell an actor, "Good luck" before a performance. Instead, you're supposed to say, "Break a leg!"

## After seeing the Play...

Write your own review of the play! A review is a way of telling your thoughts about a play, movie or book. Consider the following when you are writing your review.

*What was your favorite part? Who was your favorite character? Can you summarize the play in your own words? If you had written this play, would you have done anything different? Would you recommend this play to a friend? Name one new thing you learned from watching this play!*



# Everything about the Theatre!



**A mini-van is our hip and favored mode of transportation for touring the country!**

## THEATRE VOCABULARY!

**Actor:** The people on-stage performing the play.

**Backdrop:** The background for the play.

**Props:** Anything that an actor holds while on-stage--a cane, book or rubber chicken.

**Downstage:** the area closest to the audience a long time ago stage were built at angles.

**Upstage:** The area away from the audience, like the back wall of the a stage.

**Director:** The person who told the actors where to go while they were on-stage and helped them create the characters they played.

**Costumes:** The wigs, clothing and glasses that the actors wore to help flush out their characters .

## Facts about us!

1. Did you know we're owned by an Emmy winning actor?
2. Our actors average 1,000 miles a week traveling the country to entertain young audiences.
3. Our programs have been seen in almost every corner of the country and even around the world.
4. We watch over 1200 actors audition before we cast our season.
5. We offer dozens of different shows a season from Black History to anti-bullying and literary classics.
6. We toured Moscow with performances of our Aesop's Fables.
7. We're based in Asheville, NC.

## ABOUT US!

Founded in 2003, Bright Star Theatre tours the nation offering high quality, affordable programs to every imaginable venue. We've had countless engagements at the National Theatre, toured to Moscow and are so grateful to be in your very school today!



**Auditions:** How an actor gets a role is by auditioning. They may have to interview, pretend to be a character from the play or read something from it.

**Set Designer:** The person who decided what should be on the background and who painted or created it.

## The Process of a Play:

1. Actors audition
2. Directors cast the show (that means they choose actors)
3. The directors and actors rehearse the play (that means they practice it).
4. A team of people works on building the set, costumes and props.
5. The play opens (that means it is performed for the first time)!

Were there other terms that came from the experience of seeing the live play that you'd like to learn more about?



## BRIGHT STAR THEATRE

Bright Star Touring Theatre performs across the country from Boston to Burbank and many schools, museums, theaters and community events in between. Each season our shows run the gamut from Black History to anti-bullying, from literary classics to biographical shows. Our shows are available throughout the year for any event in any part of the world.

## GUS GOES GREEN

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Learn more about this show, this company & our whole Season:

[www.brightstartheatre.com](http://www.brightstartheatre.com)

## GUS GOES GREEN

Made its debut in September of 2014  
National Tour

We want every show to be special and remarkable for our audience. Please feel free to connect with us at anytime to tell us about your experience:

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