



# STEM4KIDZ

Promotes hands-on, inquiry based experiences for young children

## Welcome Self...

My name is Whitney Jenkins

Graduate of Shawnee High School (future teaching), class of 2015.  
After graduation, Whitney immediately began her career in education with a teaching license in Kansas.  
Background includes working many private and public schools, including Shawnee High School, and currently working as a teacher at Shawnee High School. Whitney is currently working on her Master's degree in Education at Shawnee High School.

## My story...

STEM4KIDZ

Created the organization for working with students in grades K-5.  
Planning to start a STEM4KIDZ chapter in Shawnee High School.

## STEM Urgency

US Department of Commerce reports: STEM jobs will increase by 17% in 2018.

Georgetown University published a study that shows over 10 million baby boomers will leave the workforce by 2018, leaving a gap of 51 million workers to replace them.

Center for American Progress and Center for the Next Generation published a joint report stating that 100 of 100 top secondary schools will drop out and create a degree.

United States Pentagon reported nearly 75% of people ages 15-24 are not in the workforce to join the United States Military.

## STEM Urgency

US Department of Education reports only 10% of high school seniors are ready for college level, 40% of students are not ready for college level, 40% of students are not ready for college level.

40% of teachers say they have seen a decline in student achievement.

40% of traditional jobs for STEM are projected to disappear in the next 10 years.

## STEM4KIDZ Kick-Off

Established a partnership with Shawnee State University to host Super STEM Saturday on their campus as a pre-college experience for students in grades K-5.



SSU Clark Planetarium offered for FREE show.

## Why STEM4KIDZ?

Research shows early STEM exposure helps develop creativity and problem solving in young children.

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## Marketing Plan

- Flyers were created and delivered to all schools in Sedo County
- Yard signs were created and placed strategically in high traffic areas
- Radio and newspaper interviews were held to promote the event
- Google was used to manage free registrations
- Facebook & Instagram were used to advertise

## Bringing it Together



## Super STEM Saturday



## Event Preparation

Organized the materials:

- 124 STEM Stations
- Grade Bands: K-1; 2-3; and 4-5

Assigned volunteers to stations

Sent reminders to all the volunteers about start time

Decorated the ballroom the night before the event



Met with volunteers to explain the science behind the activity to guide station discussions

## Sustainability Efforts

Hosted a booth at the Sedo County Fair and spoke with over 1,000 people about STEM4KIDZ.

Created links to online STEM resources off the NHS website.

Created a Google+ page to share information about STEM4KIDZ.

Expanding on the STEM4KIDZ program to include more activities.

## So, I wonder...

If it is predicted that STEM jobs are to increase to over a million by 2020, what are we going to do to get people the skills and knowledge needed to help our country remain an innovation leader?

## INVITATION

Appalachian STEM4KIDZ Challenge on Dr. Seuss' Birthday March 2, 2017

Ask your local elementary school(s) to hold a STEM4KIDZ Day by reading a piece of children's literature from Dr. Seuss & complete a STEM activity aligned to the book.

Please post permissible pictures to Instagram at:

#STEM4KIDZ





# STEM4KIDZ

Promotes hands-on, inquiry based experiences for young children

## Welcome Self...

My name is Whitney Jenkins

Graduate of Shawnee High School (Shawnee, Kansas) class of 2016.  
Here to discuss STEM community in early childhood science with a focus on STEM4KIDZ.

- Background includes studying many preschool experiences at Shawnee, Northland, Killebrew and Shawnee State University using science in various activities as well as volunteer work at Shawnee in working with kids to explore the wonders of science.
- What I have learned from this experience and before STEM4KIDZ.

## My story...

STEM4KIDZ

Created STEM4KIDZ in 2016 as a way to promote STEM in grades K-5.  
Planning to bring STEM4KIDZ to Shawnee State University in 2017.

## STEM Urgency

US Department of Commerce reports STEM jobs will increase by 47% in 2018.

Georgetown University published a study that shows over 10 million baby boomers will experience with only 51 million work in groups to replace them.

Center for American Progress and Center for the Best Generation published a report stating nearly 100 million baby boomers will be in college and drop out and not receive a degree.

United States Pentagon reported nearly 75% of people ages 17-24 are not in the military.

## STEM Urgency

US Department of Education reports only 44% of high school seniors are ready for college level STEM studies.

44% of high school seniors are not ready for college level STEM studies.

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## STEM4KIDZ Kick-Off

Established a partnership with Shawnee State University to host Super STEM Saturday on their campus as a pre-college experience for students in grades K-5.



SSU Clark Planetarium offered for FREE shows!

## Why STEM4KIDZ?

Research shows early STEM exposure helps develop critical thinking skills in young children.

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## Bringing it Together



## Super STEM Saturday



## Event Preparation

Organized the materials:

- (24) STEM Stations
- Grade Bands: K-1; 2-3; and 4-5

Assigned volunteers to stations

Sent reminders to all the volunteers about start time

Decorated the ballroom the night before the event



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## Sustainability Efforts

Hosted a booth at the Sedo County Fair and spoke with over 1,000 people about STEM4KIDZ.

Created links to online STEM resources off the SHS website.

Created a GoFundMe to attempt to raise money for STEM4KIDZ.

Engineering, copyright and publishing through STEM4KIDZ as educational materials.

## So, I wonder...

If it is predicted that STEM jobs are to increase to over a million by 2020, what are we going to do to get people the skills and knowledge needed to help our country remain an innovation leader?

## INVITATION

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# Welcome Self...



My name is **Whitney Jenkins**

Graduate of Northwest High School (Scioto County), Class of 2016

Plan to attend Miami University to study biological science with a  
co major in pre-medicine

- Background includes attending many pre-college experiences at Miami, Northwestern, Purdue and Shawnee State Universities taking science courses not available at my school - *which due to finances, is something many kids in my area **do not get to do because of access***

What I have learned from these experiences and believe:  
**STEM is for all kids!**





## Demographics

- District spans 186 square miles
- Buses run 3,000 miles a day
- Above 70% Economically Disadvantaged
- Enrollment is 1,662
- 2nd in Scioto County w/FASFA completion
- Top 20 ACT Club





My story...



# STEM4KIDZ

Create STEM opportunities for young,  
rural students in grades K-5

Expose young children students to  
STEM thinking with the hope they  
**believe** STEM jobs are attainable





# STEM Urgency

**US Department of Commerce** reports **STEM jobs** will increase by **17% in 2018**

JD Chesloff, STEM Education Must Start in EARLY Childhood. Education Week. March 5, 2013. Web. April 5, 2015.

**Georgetown University** published a study that shows over 76 million **baby boomers** will soon retire with only **51 million** working people to **replace** them.

**Center for American Progress** and **Center for the Next Generation** published a joint report stating **more 1/2** of US Post secondary students (college) will **drop out** and not receive a degree

**United States Pentagon** reported nearly 75% of people ages 17-24 do not meet the requirements to join the United States Military

# STEM Urgency

**US Department of Education** reports only **16%** of high school seniors are ready for **college level**, STEM related **math** courses & only **30%** are ready for college level, STEM related **science** courses

**63% of teenagers** say they have **never** considered a STEM career

United States **elementary students** are reported to receive **less than (3) hours** a week of science education

**92%** of **traditional jobs** (by 2018) are projected to require **some type of post secondary** training

STEM Education Coalition. n.d. Web. April 5, 2015.

# Why STEM4KIDZ?

Research shows **early STEM exposure** helps develop creativity & problem solving in young children

Joshua M. Sneidma. Engaging Children in STEM Education Early! Natural Start Alliance. December 2014. Web. April 5, 2015.

## Young children are naturally inquisitive

Young kids ask lots and lots of **"Why"** questions as a way to make sense of their own learning

## Carnegie Foundation Commission

Believes we must have a **strong foundation of math and science thinking** in order for our nation to stay competitive as an innovation leader in a global workforce

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# STEM4KIDZ Kick-Off

Established a partnership with  
**Shawnee State University**  
to host **Super STEM Saturday** on  
their campus as a pre-college  
experience for students in grades K-5



**SSU Clark Planetarium** offered for  
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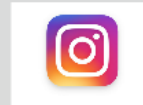


Shawnee State  
UNIVERSITY



# Marketing Plan

- **Flyers** were created and delivered to all schools in Scioto County
- **Yard signs** were created and placed strategically in high traffic areas
- **Radio** and **newspaper** interviews were held to promote the event
- **Google** was used to manage free registrations
- **Facebook & Instagram** were used to advertise

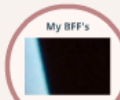


Instagram

# Bringing it Together

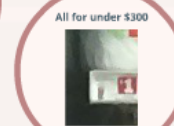
## Recruited Volunteers

Friends, family, teachers and students from other schools all agreed to help



## STEM Activities

Researched online for STEM activities which aligned to **children's literature** by Dr. Seuss and shopped for materials bought with my own money



## Costumes & Props

Shopped for costumes,  
Sketched characters,  
Made life size Truffla Trees  
Ordered table covering



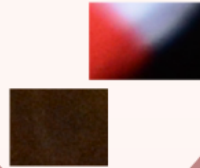
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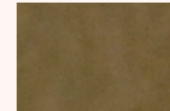
Family of Friends



Biggest Kids of All



Teacher & 4-H Advisor



My BFF's



Scioto County School Volunteers



Portsmouth River Days Festival Candidates and Court Members

**Costumes & P**

Shopped for cos



# Family of Friends



# My BFF's



# Biggest Kids of All



# Teacher & 4-H Advisor

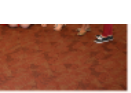




# Scioto County School Volunteers



Portsmouth River Days Festival Candidates  
and Court Members



Festival Candidates  
Members

# Costumes & Props

Shopped for costumes,  
Sketched characters,  
Made life size Truffla Trees  
Ordered table covering

Truffla Tree  
Construction



Truffla Tree Forest  
Wildlife



Truffla Tree Trunks





# Truffla Tree Construction



# Truffla Tree Trunks

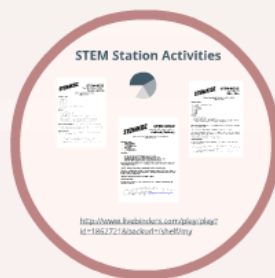


# Truffla Tree Forest Wildlife



# STEM Activities

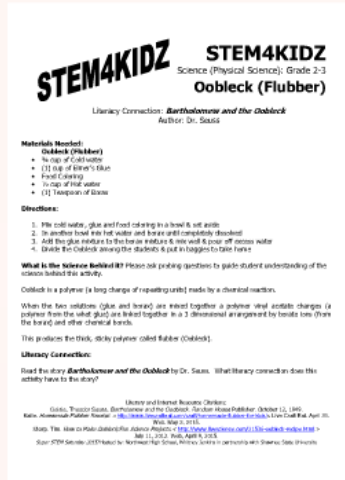
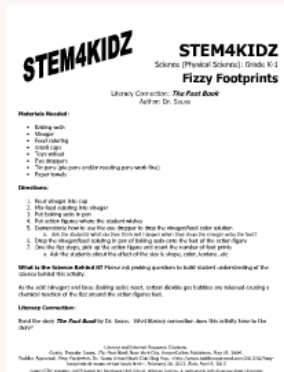
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**All for under \$300**



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<http://www.livebinders.com/play/play?id=1862721&backurl=/shelf/my>



# All for under \$300





# Event Preparation

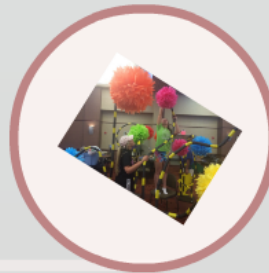
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- (24) STEM Stations
- Grade Bands: K-1; 2-3; and 4-5

**Assigned** volunteers to stations

**Sent reminders** to all the volunteers about start time

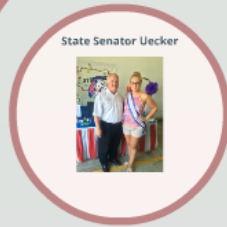
**Decorated** the ballroom the night before the event



**Met with volunteers** to explain the science behind the activity to guide station discussions



# Sustainability Efforts



**Hosted a booth** at the Scioto County Fair and spoke with over 1,500 people about STEM4KIDZ



**Created links to online STEM resources** off the NHS website

[http://www.northwest.k12.oh.us/index.php?option=com\\_content&view=article&id=3127&Itemid=844](http://www.northwest.k12.oh.us/index.php?option=com_content&view=article&id=3127&Itemid=844)

[http://www.northwest.k12.oh.us/index.php?option=com\\_content&view=article&id=3128&Itemid=845](http://www.northwest.k12.oh.us/index.php?option=com_content&view=article&id=3128&Itemid=845)

**Created a GoFundMe** to attempt raise money for STEM4KIDZ that would: <http://www.gofundme.com/stem4kidz>

- Expand by giving (2) free summer K-5 scholarships to each county school SSU's for Kids On Campus Program
- Secure funding to continue Super STEM Saturday

**Exploring copyright and publishing** through STEM4KIDZ as educational materials

*So, if you can help me, please see me after this presentation!*

## State Senator Uecker



# Scioto County Fair



# So, I wonder...

If it is predicted that **STEM jobs** are to **increase** to **over a million** by **2020**, **what are we going to do** to get people the skills and knowledge needed to help our country remain an innovation leader?

DS Examiner. The Ultimate STEM Guide for Kids: 239 Cool Sites About Science, Technology, Engineering and Math. July 14, 2014. Web. April 5, 2015.

UNLESS, someone like YOU cares a whole awful lot,  
NOTHING is going to get better. It's NOT." ~ Dr. Seuss





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April 5, 2015.

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USS

# INVITATION

**Appalachian STEM4KIDZ Challenge**  
on  
**Dr. Seuss' Birthday**  
**March 2, 2017**

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STEM4KIDZ Day by reading a piece of children's  
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Please post permissible pictures to Instagram at:

## #STEM4KIDZ

STEM4KIDZ You Tube Clip



<http://gofundme.com/stem4kidz>

Remember: #STEM4KIDZ

Appalachian STEM4KIDZ Challenge  
Dr. Seuss' STEM Birthday Party

# STEM4KIDZ You Tube Clip



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Remember: **#STEM4KIDZ**

Appalachian STEM4KIDZ Challenge

*Dr. Seuss: STEM Birthday Party*

March 2, 2017