

# STEM Institute March 2016 Agenda

[@wfryer](#) [@casadySTEM](#) [@STEMseeds](#)



*last updated 17 March 2016*

Use this QR code or link: <http://wfryer.me/brazilstem>



**[wfryer.me/brazilstem](http://wfryer.me/brazilstem)**

Access all STEM institute resources on  
<http://camp.stemseeds.org/home/march2016>

[Monday March 14, 2016](#)

[Tuesday March 15, 2016](#)

[iPad Apps](#)

[Engineering Design Projects](#)

[Presenter Contact Info](#)

[Additional Resources](#)

## Monday March 14, 2016

8:00 - 8:30am Gathering and Refreshments

8:30 - 8:45 Welcome, Introductions & Overview

1. [Participant Survey](#)
2. [Why STEM / STEAM? \(Haiku Deck\)](#)

8:45 - 9:45 [Engineering Design Project 1](#)

1. [Narrated Art/Photo](#) Project (whole group) - [our video on YouTube](#)

9:45 - 10:00 Break

10:00 - 10:15 STEM Project Management Strategy: Color Grouping Sheet (Handout) (actual: 10:10 - 10:30)

10:15 - 11:15 [Catapult Project](#) (actual: 10:30 - 11:30)

11:15 - 11:45 [Project Lead the Way](#) Skype Videoconference ([@PLTWorg](#)) (actual: 11:30-12)

11:45 - 1pm Lunch (actual: 12-1)

1 - 1:30 [Curiosity Links](#)

1:30 - 2:00 Continue [Catapult Project](#) building and testing

2:00 - 2:15 Catapult Launches! (actual: 2 - 2:40)

[Engineering Design Process](#) (EiE - PDF)



[Submit Launch Results!](#)

2:15 - 2:30 Break (actual: 2:40 - 3 pm)

2:30 - 3:45 Maker Studio (actual: 3-4 pm)

Introduction and Stations

1. 1 Day Stations
  - a. [Makey Makey](#)
  - b. [WeDo LEGO Kits](#)

3:45 - 4:00 Show and Share Time

4:00pm Dismissal



[Our STEM Institute Photos](#)



[STEM Institute Videos](#) (YouTube playlist)

## Tuesday March 15, 2016

8:00 - 8:30am Gathering and Refreshments

8:30 - 9:00 Reflections on Day 1 Learning

- [Discovering Useful Ideas as a Connected Educator](#) (Thoughts on being a creator and a maker - [website](#))

9:00 - 9:30 [Engineering Design Project 2](#)

Mola Structural Kit <https://www.catarse.me/mola>

[App Smashing to YouTube](#)

9:30 - 12 pm [Prosthetic Hand Project](#)

- [Engineering Design Process](#) (PDF - from EIE)
- [Solution Fluency | Global Digital Citizen Foundation](#) (via Lucy)
- [A Global Network Of Passionate Volunteers Using 3D Printing To Give The World A "Helping Hand."](#) (via Danielle Sherdan [@DrSherdan](#))
- [PBS Design Squad Stuff Spinner](#) (via Milly)

11:45 - 1pm Lunch

1 - 1:45 [Curiosity Links](#)

2:00 - 3:00 3D Design & Printing Intro with [TinkerCAD](#)

1. PLAYDATE About 3D Printing: <http://playdate.edcampokc.org/>
2. [STEMseeds13: 3D Printing, STEM/STEAM, & MinecraftEDU](#) (podcast & archived video)
3. [Google Presentation Slides](#)

2:00 - 2:15 Using Media to Reflect on and Share our Learning ([Radio Show](#))

2:15 - 2:30 Break

2:30 - 3:30 Maker Studio

1. [Green Screen Videos](#)
2. [Little Bits Circuits](#)
3. [VEX Robotics kit](#)
4. [Lego Stopmotion](#)

3:30 - 4:00 Show and Share Time

4:00pm Dismissal

## iPad Apps

These are links to these apps in the U.S. iTunes Store, links to the Brazil iTunes store will be added soon.

1. [i-Nigma](#) (free)
2. [Shadow Puppet EDU](#) (free)
3. [Voice Record Pro](#) (free)
4. [Lego Movie Maker](#) (free)
5. [Opinion](#) (free)
6. [Blockify](#) (\$4)
7. Maker Studio Apps
  - a. [Green Screen by Do Ink](#) (\$3)
  - b. [Osmo](#): [Tangram](#), [Newton](#), [Numbers](#) (free)
  - c. [Dash](#) & [Dot](#): [Go](#), [Wonder](#), [Blockly](#) (Free)

## Engineering Design Projects

1. [Marshmallow Challenge Official Instructions](#) ([Construction Design](#))
2. [Straw Structures](#)
3. [Paper Table](#)
4. [Pipe Cleaner Structures](#)
5. [Tennis Ball Lego Tower](#)
6. [Building Challenge](#)
7. [Cantilever Spans](#)

## Presenter Contact Info

[Wesley Fryer](#)



1. Twitter: [@wfryer](#)
2. STEM curriculum: [stem.wesfryer.com](#)
3. Show What What You Know with Media: [ShowWithMedia.com](#)
4. Professional blog: [speedofcreativity.org](#)
5. Books by Wes: [playingwithmedia.com/store](#)
6. iPad Media Camp: [www.ipadmediacamp.com](#)

7. Flipboard: [flipboard.com/@wfryer](https://flipboard.com/@wfryer)

## Additional Resources

1. [STEMseeds lesson resources & podcasts](#) (@stemseeds)
2. [Wes' Twitter list of STEM Teachers](#)
3. [Wes' Twitter list of STEM innovators](#)
4. [Discovering New Ideas as a Connected Educator](#) (workshop resources by Wes)
5. Algodoo <http://www.algodoo.com/> (free physics simulator) - [Tutorial Videos](#) (YouTube playlist)
6. Jitterbug Robots Lesson
  - a. [Jitterbug Dance Party](#) (Video from [Shelly Fryer's classroom](#))
  - b. [Jitterbug Robot Lesson Plan](#) (SF Exploratorium)
  - c. [Kithub](#) - electronics project kits for classroom makerspaces
7. [Tracker Video Analysis and Modeling Tool](#) (free - via Jack Kriss)
8. Great STEM teachers to follow:
  - a. Lucie deLaBruere ([@techsavvygirl](#))
  - b. Kevin Jarrett ([@kjarrett](#))
  - c. Brian Crosby ([@bcrosby](#))