

## Workshop Presentations, Documents and Other Materials

**STEMAZing Workshop "Get to Know Your Sonoran Desert Ecosystem."** It ran for 3 days from 8am to 3pm starting **Monday June 29<sup>th</sup>** at Pima Prickly Park, 3500 W. River Road, Tucson, AZ.

The purpose of the Workshop was to engage the minds of the twenty-five participants. Inspiring them to Think like a Scientist or increasing their knowledge will impact student learning. The sponsoring organizations were the [Tucson Cactus and Succulent Society](#) and the [STEMAZing Project](#) at the office of the Pima County School Superintendent.

Listed below is the Workshop Agenda with links to most of the materials and presentations used by the various presenters. Some of the presentations were switched on a given day, the order below is the original plan. The material may be used for educational purposes only.

Note: Additional links to materials will be added as the items become available to TCSS (last updated **7/14/15**)

### **MONDAY, June 29, 2015**

**Welcome**, Agenda, Materials – Caryl Jones

[Agenda](#) [Cast of Characters](#)

[Earth Bracelet](#), [Connection Circles](#), Smithsonian Science, Science and Children, [Pre-test NGSS and CORE Integration](#), [NGSS Concepts](#)

#### **Meet Pima Prickly Park (PPP)**

Observations/Connections

Jessie Byrd (Pima County Native Plants Nursery Manager)

[PPP Map](#) [PPP Web Site](#)

#### **Build a Cactus Model**

Compare structures, Adaptations, Parts and Functions

Caryl Jones (TCSS) and Barry McCormick (TCSS)

[Cactus Model Building Instruction Sheet](#)

[Build a Cactus](#) [Build a Cactus Enrichment Graphics](#) [Build a Cactus Enhancements](#)

#### **KEYNOTE SPEAKER 1**

Dr. Cindy Moss

Discovery Education (podcast, not sure if this is available online)

#### **Areoles and Spines**

Joe Frannea (TCSS)

[Document](#)

#### **Barrel Fruit Math**

Joe Frannea (TCSS)

[Document](#)

#### **Think Like a Scientist**

Dr. Ted Fleming

[Think like a Scientist](#) [PowerPoint](#)

## **Habits of Systems Thinker**

Caryl Jones

[Systems Thinker Habits](#)

## **TUESDAY, June 30, 2015**

**Welcome**, Agenda, Materials

### **Field Guide to Cacti & Other Succulents of Arizona**

John Durham (TCSS)

Children's Lit – BOTG

[Information and Field Guide Facebook link](#)

### **Propagation Techniques at Pima Prickly Park**

Cathy Robson (TCSS and Master Gardener), Linda Heisley (TCSS)

### **Seeds and Cactus Care**

Jessie Byrd (Manager, PC Native Plants Nursery)

Contact Jessie for Field Trips to her Nursery, see Cast of Characters above for contact info

### **Our Sonoran Desert Ocean Sea of Cortez and Vaquita, the Endangered Species**

Annette Felix (CEDO)

[Presentation](#)

### **New Paths to the BAHIDAJT! Secrets of the Saguaro!**

William Peachey (TCSS)

[Secrets of the Saguaro](#)

### **Candy Model DNA Kids and DNA**

[DNA with candy POSTER](#) [Handout](#) [Candy Model](#) [Difference Plants and Animals](#) [How to Explain DNA to Kids](#)

### **DNA Sequencing Saguaro**

Dr. Dario Copetti (U of A)

[Presentation](#)

### **Saguaro Population Game**

Caryl Jones (TCSS), Barry McCormick (TCSS)

[Saguaro Population Game](#)

### **Some of My Best Friends have Spines!**

I Wonder, Question Books, Think Like a Scientist, Guess Who in the Desert

## **WEDNESDAY, July 1, 2015**

**Welcome**, Agenda, Materials, Flowering Seasons/SARSEF and Resources

### **KEYNOTE SPEAKER 2**

Admin Dr. Robert Ballard, Nautilus Explorer (cancelled)

## **Creating a STEM Garden**

Joe and Patsy Frannea (TCSS)

[Document](#)

## **Soil Science**

Dr. Rob Root (U of A)

[Presentation](#) [Soil Textural Triangle](#)

## **“Don’t Enter When Flooded” Soil Science in the Sonoran Desert**

Franklin Lane

## **Let’s Get Dirty!**

Franklin Lane, Caryl Jones

[Comparing Soils](#)

## **Botanical Drawing**

Margaret Pope (TCSS)

[Cacti of the Sonoran Desert Coloring Book](#)

[Sonoran Desert Florilegium Program - Web Site](#)

## **Some of My Best Friends have Spines!**

Certificates, pins, Post Test, Evaluation

Action Plan: journal, field trips, [TCSS School Grants](#), Literature Lessons

## **Other Materials and Links Presented at Pima Prickly Park STEMAZing Workshop**

[Weblinks STEMAZing Sonoran Desert Ecosystem](#) [Question Book](#) [Pollination Facts](#)

[Guess Who in the Sonoran Desert](#) [If-Then in the Sonoran Desert](#)

[Photosynthesis Discovery Kids](#) [Photosynthesis Modeling Activity](#)

[Field Guide Student – Grinnell](#) [Cactus - Barrel ASDM](#) [Cactus – Endangered Pima Pineapple](#)

[TCSS Compare Cactus Table](#) [TCSS Compare Cactus Table white](#) [TCSS Compare Cactus Table half sheet](#)

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## **Other Useful Links**

- TCSS [Web Site](#)
- TCSS [Pima Prickly Park Web Site](#) [Video About PPP](#)
- TCSS Web [Education Page](#)
- TCSS [School Grant Program](#)
- TCSS Prickly Pear Fruit [Processing and Punch Recipe](#)
- TCSS [Education Sheets](#) (word search, crossword puzzles, cootie catcher, etc)
- TCSS [Cactus Gloves](#)
- TCSS Cactus Postcard [Front](#), [Back](#)
- Doug Dawson’s [Growing Seeds using a Red Cup](#)