BASIS Team Leader Check In: Info Sharing & Listening Session

2020

Today's Agenda

Please go to:
http://www.crscience.org/volunteers/teamleaders

1. Shared goals!
2. Key info from CRS team
   - Pre/Post Lesson Logistics
   - Special Needs
   - English Learners
   - Meaning-making
3. Feedback session

Team Leader Webpage: www.crscience.org/volunteers/teamleaders

BASIS Goals for 2019-20: Inspiring the Next Gen!

- 550 Classroom Lessons
- Reaching 16,000 Kids

- Currently scheduled 216 Lessons
- 52 Active teams -- every lesson adds up!

BASIS Impact on Teachers & Children

I wanted to personally thank you for the care you put into the lessons! I appreciate how patient you all were with the kids and how much you connected. Science is a subject where all of my students are able to thrive and feel safe and it was great to have you all a part of it. -3rd Grade Teacher, OUSD

One of my favorite things is having my learners see women and people of color in science!! They reflect my classroom and that makes me happy & positive for our future! - BUSD, 5th Grade teacher

Being able to observe my students engaging with content, having scientific conversations, and interacting with the volunteers was truly incredibly helpful for my teaching practice. Thank you SO much!! -3rd Grade teacher

BASIS Impact on Teachers & Children

I was specifically impressed with the answer a volunteer gave to a student question. The student asked when the volunteers became scientists. The volunteer flipped the question and asked students when they started asking questions and searching for answers -- explaining we are all scientists. It was a truly beautiful moment.

This was a WONDERFUL experience for my students to talk to real scientists and they were beyond thrilled! I am always amazed at how the BASIS visits energize my class. My students are made to feel safe to explore and learn because the scientists make them feel so comfortable and confident.

Before Your BASIS Lesson

Connecting with the Teacher Before Your Lesson

- Teacher Email
- Lesson Logistics

Teacher Email

- Send email to teachers before your lesson
- Questions/Check In's:
  - Specific lesson needs (ex. Electricity, water, group divisions)
  - Classroom management techniques
  - Students with learning differences
  - English Language Learners

BASIS Lesson Logistics

- Arrive On Time! School schedules are tight!
- Transportation to Lessons
  - Thanks to teams that get transportation covered by their lab!
  - Check in with your PI to see if you can get reimbursed
  - We are able to reimburse rides, especially if you are able to reach classrooms that are hard to get to or teach back to back lessons

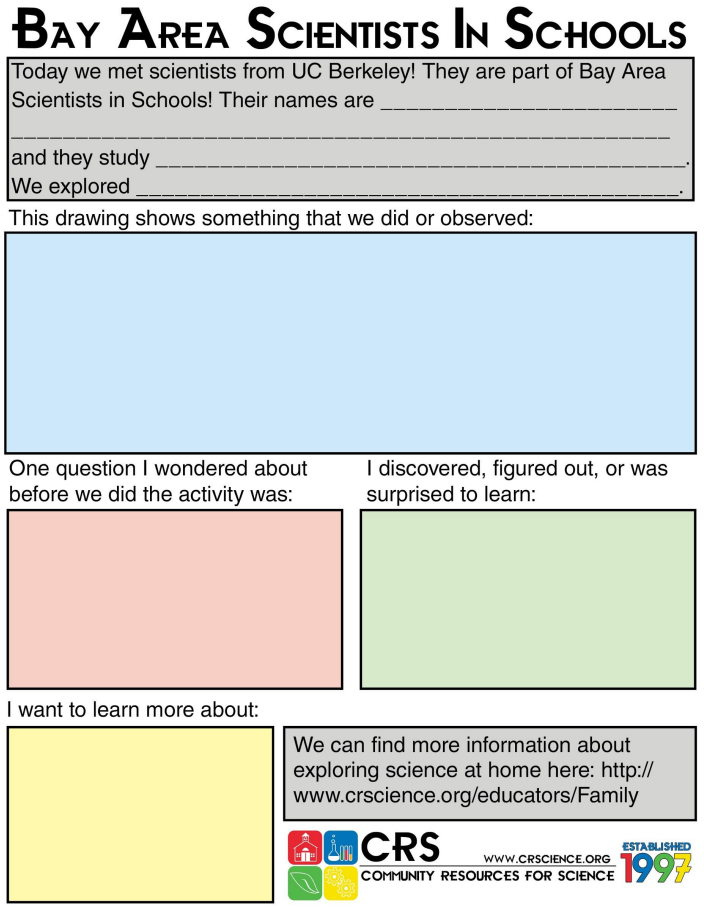
After Your BASIS Lesson

Engaging Classrooms After Your Lesson

- Take-Home Sheet
- Family Connection
- Color Me PhD

Take Home Sheet

- Continue the learning experience beyond the classroom visit
- Leave for students to fill out after the lesson
- Responses can be written or drawn and can be incorporated with science notebooks



Bay Area Scientists In Schools

Today we met scientists from UC Berkeley! They are part of Bay Area Scientists in Schools! Their names are _____
_____
and they study _____.
We explored _____.

This drawing shows something that we did or observed:

One question I wondered about before we did the activity was:

I discovered, figured out, or was surprised to learn:

I want to learn more about:

We can find more information about exploring science at home here: http://www.crscience.org/educators/Family

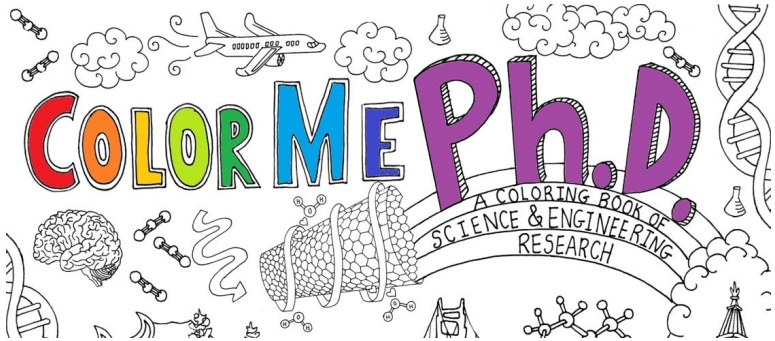
CRS Community Resources for Science www.crscience.org Established 1997

Family Connection: Adapt the leave-behind template

- What can you encourage students to do at home after your lesson to extend the learning?
- What phenomena can they wonder about?

Color Me PhD

- Created by Dr. Julie Rorrer, a BASIS volunteer in the Chemical Engineering Department
- Coloring book of PhD research highlighting the science story of scientists
- ColorMePhd.org



Chat with a partner about how you might use these pre and post lesson resources.

Special Education (SPED)

Understanding Learning Differences

- Learning Differences
- Class configurations
- Classroom Aides
- Accommodations & strategies

Learning Differences

- Almost every classroom includes children with various types of learning differences. Some are visible or apparent in student behavior, while others are not.
- Inclusive teaching strategies benefit all students!

Classroom Arrangements

- Special ed. arrangements vary across the districts
- Most special education students are fully included in the general education classrooms, so **BASIS teams need to be prepared to adapt!**
- Some classrooms may be exclusively made up of students with special needs; these classes may include multiple grades and/or students with a variety of learning needs
- **Conferring in advance with teacher is key to success for all**!

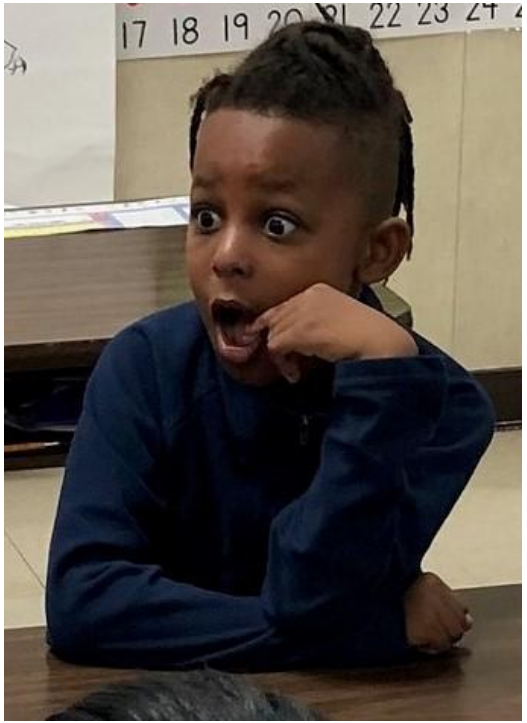
Classroom Aide/Paraprofessional Educator

- Some students may have a designated Classroom Aide, also known as a Paraprofessional Educator who is assigned to work with specific students with learning differences

- Check with teacher in advance to learn about any specific adaptations that may be needed to your BASIS lesson to ensure students can fully participate in the activity as appropriate

Specialized Teaching Strategies

- Students may have specific plans that include use of manipulatives, special seating, or modified material
- Be sure to “read the room” and check for understanding at key points in the lesson
- **Quick checks might include: thumbs up if you agree that.**



Chat with a partner about how your team can be prepared to engage students with special learning needs in your lesson presentation.

English Language Learners (ELL)

Strategies for English Language Learners

- Modes of Learning
- Checks for Understanding
- Partnered Learning

English Language Learners (ELLs)

- Students who speak a language other than English, and are working toward English language proficiency
- >50% children in Oakland and West Contra Costa schools come from homes where languages other than English are spoken (Children may speak two or more languages, in addition to learning English!)
- Some classes are “dual immersion” - with instruction in Spanish or Chinese and English

Engaging Multiple Modes of Learning

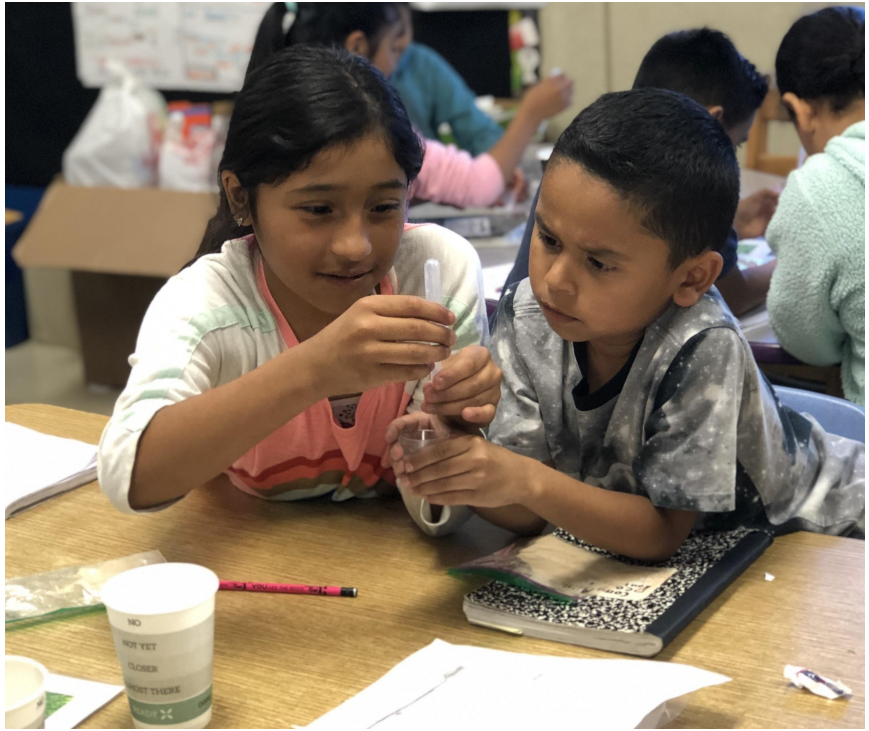
- Many different ways to communicate & receive information
  - **Visuals -- icons, charts, vocab**
  - **Spoken Word - rhymes**
  - **Rhythmic - chants, claps, snaps**
  - **Music - set to a familiar tune**
  - **Kinesthetic - movement, hand signals**
  - **Technology**
- Use multiple modes of communication to engage all learners

Checks for Understanding

- Use of visuals is key
  - Think of icons, simple pictures to go with words
- At each step, check for understanding
  - **Turn & Talk** with a partner
  - **Hand signals** (thumbs up)
  - **Sketch & Write** in Science notebook or worksheet, **draw ideas**!
  - Post **simple sentence frames** (if not already posted in classroom)
  - I think...because….; I noticed ... I wonder

Partnered Learning

- Teachers may have paired students using a “Buddy system” to support language learning
- Empowers students to stay engaged in the lesson in different ways
- Check-in with teacher if this structure exists



Chat with a partner about how your lesson can better accommodate English Language Learners.

Take 5 minutes to prep lessons for Spring

Next Generation Science Standards (NGSS)

How to incorporate NGSS into your lessons

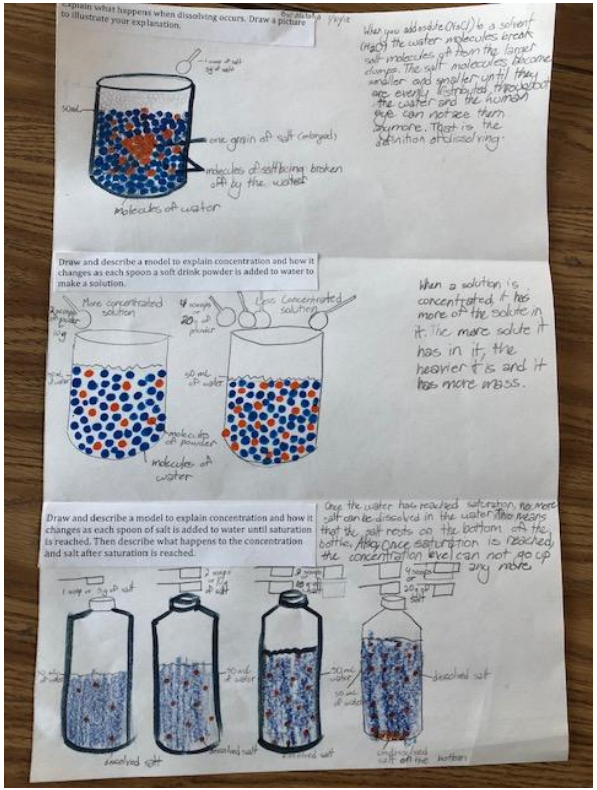
- Phenomena
- Using Data
- Structuring Academic Discussion (Crosscutting Concepts)

Start with Phenomena:
What Phenomena Anchors Your Lesson?

- Phenomena: observable events that use can use science to observe or predict
- Engage learners to using evidence they collect, engaging in to make and evaluate claims.
- Example: Condensation on a cup of ice water

Using Data, Computational Thinking, and Models

- Does your lesson include anything that can be measured, tallied, or quantified?
- Where is the data tracked?
- Student notebook, worksheet, class chart on whiteboard
- How can students use data collected to support a claim about the phenomena they are exploring?



Structuring Academic Discussion

- NGSS Crosscutting Concepts
  - **Scale, Proportion, & Quantity**
  - **Stability & Change**
  - **Energy & Matter**
  - **Patterns**
  - **Structure & Function**
  - **Cause & Effect**
  - **Systems & Models**
- Which one (or two) of these lenses can you look at your BASIS lesson through?

Chat with a partner about how your team can incorporate any of these NGSS concepts into your lesson.

Listening Session!

What’s working? What could be better?

- Please write down your responses on Post-It Notes

Team Feedback: What's Working? What Can we Do Better?

- What are your BASIS team's goals?
- What are some of your best BASIS experiences?
- What have been some of your most difficult challenges?
- How can CRS better serve your BASIS team?