

Teachers' Guide to: The Buzz about Bees

Dates : Thursday, November 4th

Thursday, November 18th

Times : 10 a.m. and 2 p.m. Eastern Time

(approx. 45 minutes in length)



**STREAMING
SCIENCE**

UF | IFAS
UNIVERSITY of FLORIDA



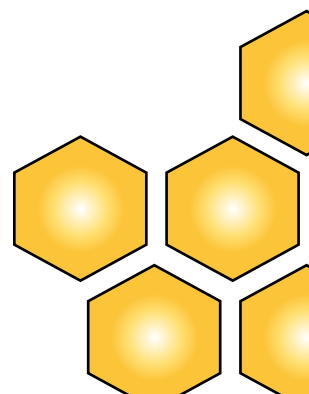
UF | IFAS CALS
UNIVERSITY of FLORIDA



**AGRICULTURAL
EDUCATION AND
COMMUNICATION**

Table of Contents

page 1	Introduction
page 2	Science Education Standards
page 3	Technology & Room Reservation
page 4	Supplemental Materials
page 5	Recommended Timeline
page 6	Contact the Streaming Science Team

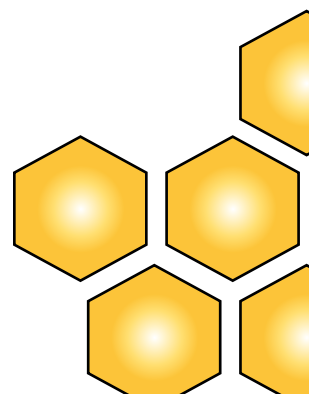


Introduction

Thank you for [registering](#) to participate in our electronic field trip (EFT)- *Streaming Science:The Buzz about Bees*. Join us on this EFT to meet University of Florida scientists who study these unique insects. *Streaming Science* is produced in partnership with graduate students and Dr. Jamie Loizzo in the [Department of Agricultural Education and Communication](#) (AEC) at the University of Florida and *The Buzz about Bees* is in partnership with scientists with the [Honey Bee Research and Extension Laboratory](#).

No need to schedule transportation, pack a lunch, or even leave your school when you visit us on an EFT. Our scientists interact with your students on a variety of food, energy, water, and people related topics through our live, interactive mobile web-streaming programs. Classes are designed to fit within your schedule, curriculum needs and are aligned with national science standards.

Please use this Teachers' Guide to help plan and prepare for implementing a successful *Streaming Science* LIVE interactive web-stream experience for your students!



Science Education Standards

The Buzz about Bees is intended for middle and high school students and to support the Next Generation Science Standards (NGSS) such as:

MS-LS2: Ecosystems: Interactions, Energy, and Dynamics
MS-LS4: Biology Evolution: Unity and Diversity
HS-LS2: Ecosystems: Interactions, Energy, and Dynamics
HS-ESS3: Earth and Human Activity

This program also intends to support Florida's Next Generation Sunshine State Standards for Science:

Big Idea 1: The Practice of Science
Big Idea 2: The Characteristics of Scientific Knowledge
Big Idea 4: Science and Society
Big Idea 15: Diversity and Evolution of Living Organisms
Big Idea 17: Interdependence

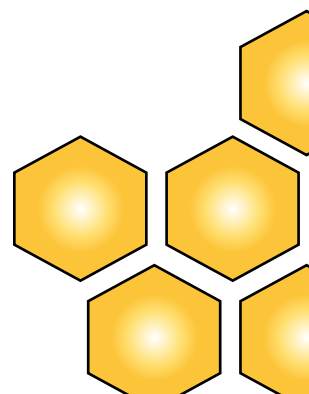
Scientific inquiry and nature of science standards are supported through an introduction to scientists, science careers, and real-world scientific field research.

Anticipated Content:

Segment 1: Background on Bees

Segment 2: Bee Informed

Segment 3: Be the Solution



Technology

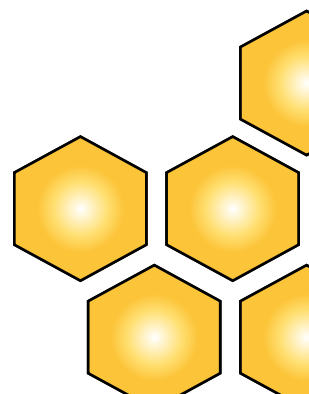
At least **two weeks before the LIVE web stream**, work with your school's technology specialist to test your web streaming connection. We will stream the program through an online video platform such as IBM Waatson or Zoom. We will reach out to you via the email you provide to us in your registration - prior to the EFT and share the link to the livestream.

Room Reservation

Ideally, you will adjust your daily schedule to participate in the LIVE webstream. Treat this like a real-life field trip event, build up the hype with your students, and take time out of the daily routine to meet university scientists through the magic of technology!

Reserve a large enough space for students to participate together. You will also want either:

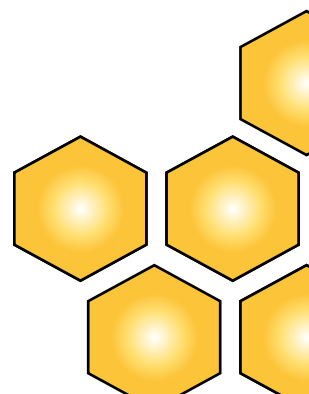
- a) a couple of laptops at the front or back of the room for students to submit their questions in the web stream window or
- b) laptops/tablets at each individual student's desk connected to the web stream



Supplemental Material

These materials are designed for classroom use before and/or after the LIVE webstream.

- Electronic Field Trip overview information:
 - ▶ <https://streamingscience.com/electronic-field-trips>
- Post a 2-minute FlipGrid video from your students and have them tell us what they know about bees:
 - ▶ <https://flipgrid.com/6de5b978>
- Honey Bee Research and Extension Laboratory History
 - ▶ <https://entnemdept.ufl.edu/honey-bee/about-us/history-of-hbrel/>
- Why bees are important:
 - ▶ <https://www.youtube.com/watch?v=2dHR6s34d3I>
- Lab social media: Twitter, Facebook, Youtube
- Research the participating 'The Buzz about Bees' scientists:
 - ▶ Dr. Jamie Ellis
 - ▶ Dr. Cameron Jack
 - ▶ Amy Vu
 - ▶ Chris Oster
- Follow our social media for more materials, tips, and interactivity:
 - ▶ Facebook: [@StreamingScience](http://www.facebook.com/StreamingScience)
 - ▶ Twitter: @Streaming_Sci
 - ▶ Instagram: studentstreamingscience



Recommended Timeline

The recommended timeline for using supplemental material are as follows:

DAY 1: SUPPLEMENTAL ACTIVITY 1

DAY 2: SUPPLEMENTAL ACTIVITY 2

DAY 3: LIVE web-stream word association handout

One week after the EFT: post-survey

—OR—

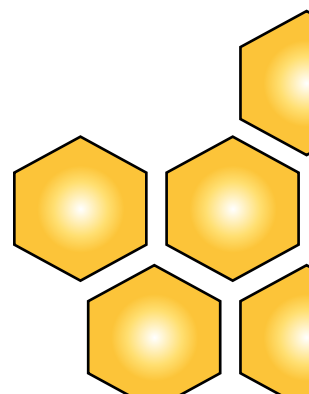
Back-load Approach

DAY 1: LIVE web-stream and word association handout

DAY 2: SUPPLEMENTAL ACTIVITY 1

DAY 3: SUPPLEMENTAL ACTIVITY 2

One week after the EFT: post-survey



Contact the Team

CONTACT THE STREAMING SCIENCE TEAM Before the LIVE webstream:

Dr. Jamie Loizzo

Assistant Professor of Agricultural Communication

Department of Agricultural Education and Communication

University of Florida

352-273-1663

jloizzo@ufl.edu | Bryant 121D

