Science in Sync

Professional Learning Experience for Maryland Teachers

About the Workshop:

The world around us is in constant flux: trees grow new leaves in spring and shed them in autumn, flowers bloom and wither, and our neighborhoods fill with the sounds of birds returning in spring. Phenology is the study of the timing and patterns of events like these in nature, and data collected by volunteer observers (often called citizen science) is essential to phenological research. During this workshop, participants will learn from researchers using citizen science data to study animal and plant phenology and understand how human activity is shifting seasonal patterns. Through both field and classroom experiences, teachers will develop questions, practice collecting their own observations, and learn how to use existing phenology datasets. We will explore how identity affects how we all do science, from the questions we ask to our experiences of safety and belonging in the field. Participants will create and implement a lesson for the 2025-2026 school year that engages students in phenological research.

Who is this workshop for?

This workshop is for middle and high school teachers in Maryland. While the research project will be bioscience based, teachers of all STEM disciplines are invited to apply.

When does this workshop take place?

Date	Time	Mode	Activity
June 2025	N/A	Asynch	~5 hours of asynchronous work
June 30 – July 2 2025	8:00 am - 3:30 pm	In-person	Summer workshop days
April 25, 2026	9:00 am - 12:00 pm	Virtual	Final workshop day

How do I apply?

1. Complete the Science in Sync Application Form
2. Have your principal complete the Principal Support Form

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Frequently Asked Questions

What is expected of participants during the 2025-2026 school year?

Participants will develop a Classroom Implementation Project (CIP) to apply what they learned during the workshop to their current teaching practices. The CIP will entail creating a new lesson or modifying an existing one that engages students in phenological research. Participants will be expected to implement the lesson in their classroom during the 2025-2026 school year and present the results of their implementation to their peers during the final workshop session.

Who are the program Facilitators?

Dr. Mary Stapleton (TU Center for STEM Excellence) in partnership with researchers from the University of Maryland Center for Environmental Science, Drs. Emily Cohen and Claire Nemes.

Will participants be compensated for their time?

In addition to gaining experience in authentic research and inclusive teaching strategies, participants will earn a **$500 stipend** and **3 CPD credits** and a pair of binoculars which will be theirs to keep.

Where will the workshop take place?

The summer portion of the workshop will take place at the Center for STEM Excellence (701 E. Pratt St., Baltimore, MD 21202) and at two local parks within Baltimore City. Parking will be provided.

Will there be outdoor fieldwork during the summer workshop days?

Yes, there will be an outdoor component on each day of the summer workshop that focuses on phenological data collection in the field. On Day 1, we will spend ~1 hour outside the Center for STEM Excellence. On Days 2 & 3, we will meet each morning from 8:00 am – 11:00 am at a local park (within 10 miles of the Center for STEM Excellence) for field work. Participants will then drive to the Center for STEM Excellence for the remainder of the day. Parking will be provided at all locations.

Are all sessions mandatory?

Yes, due to interactive nature of the program, all sessions are mandatory.

Do you have a question that wasn't answered here?

Email mkstapleton@towson.edu

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