



Budburst Community Science: Bringing Data to Life in the Classroom

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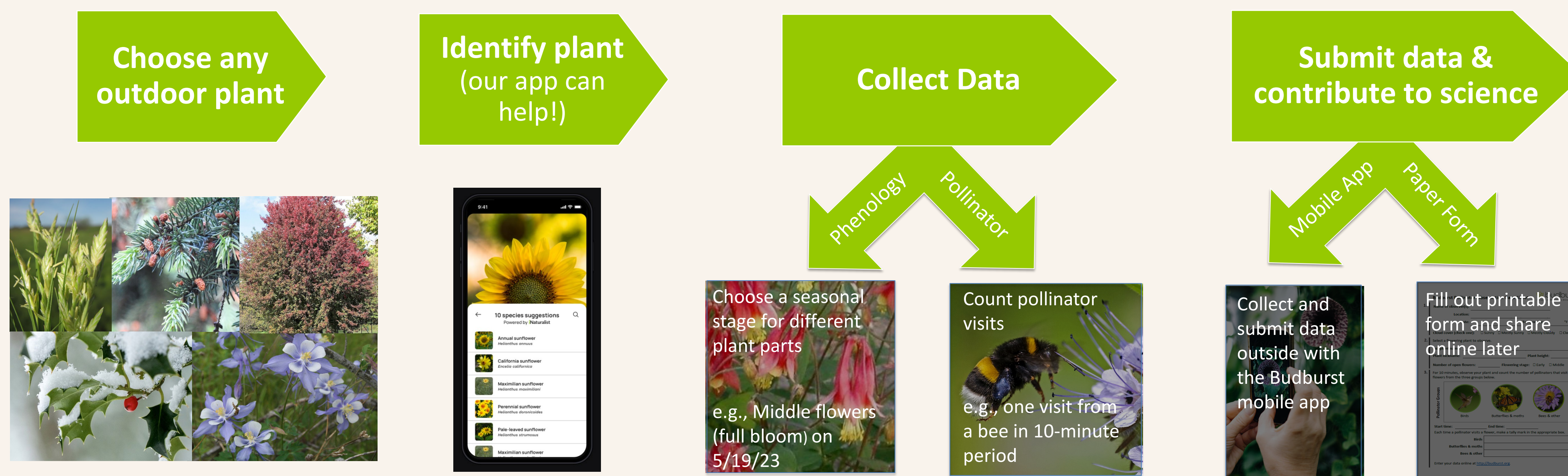
Community Science In the Classroom

- Community science (CS) = scientific research involving a collaboration between the public and professional scientists.
- CS engages students in authentic research and facilitates the use of **real-world data sets** in the classroom.
- Because CS projects aim to solve real world problems, they can provide a **sense of purpose** to data collection and analysis in the classroom.



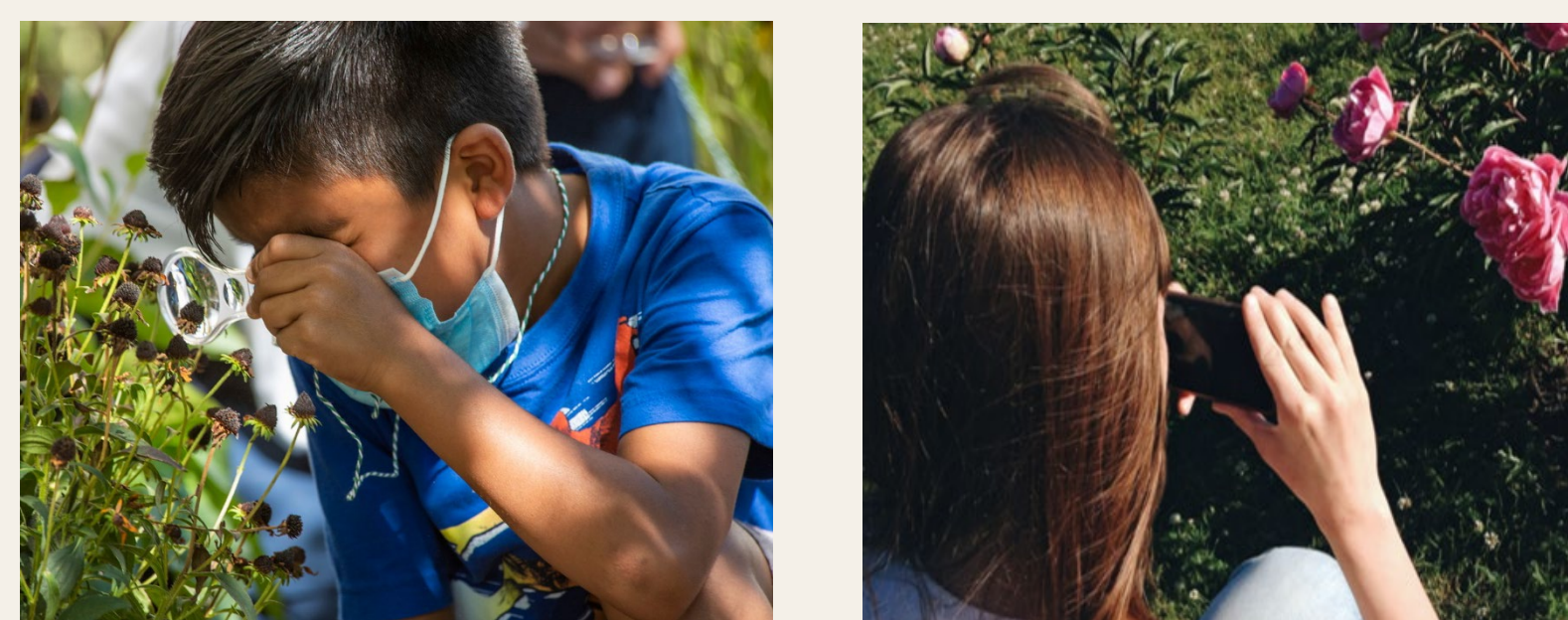
Collect Plant Data

- Students can submit data on **any plant, anywhere**.
- They can collect **different types of data**, including the timing of plant seasonal changes (phenology data) and the frequency of pollinator visits to flowers (pollinator data).
- You can set up a virtual **Budburst Group** to facilitate student data collection and manage class data.



Budburst: Built for Education

- Budburst is a plant-focused, nationwide CS program hosted at the Chicago Botanic Garden.
- Participants **collect data on plants and pollinators** to help researchers understand how climate change and human activity impact our ecosystems.



Your classroom can participate by:

- Collecting your own plant data** and/or
- Analyzing data**
 - Your class data
 - Data from our national database



Analyze Plant Data

About the Data

- Since 2007, nearly 30,000 participants have gathered over 270,000 data points.
- Data are opportunistically collected -> variable, patchy data sets.
- Different data types
 - Nominal (e.g., plant species)
 - Ordinal (e.g., seasonal stage)
 - Discrete (# of pollinators visiting)
 - Continuous (GPS coordinates)

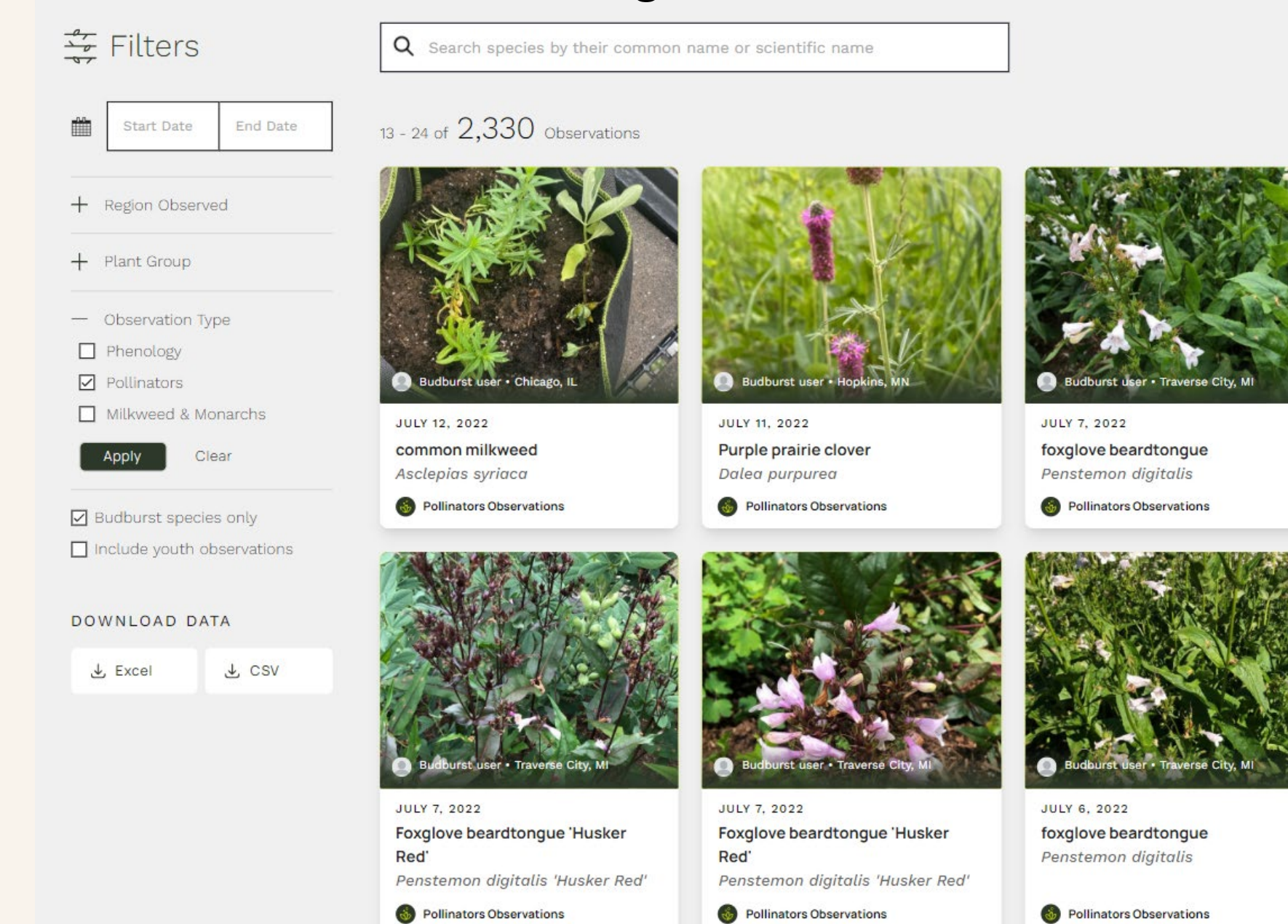
Accessing Data

- Raw data are searchable and downloadable (csv/excel) for anyone to use
- Filter data by plant species, location, date, etc.

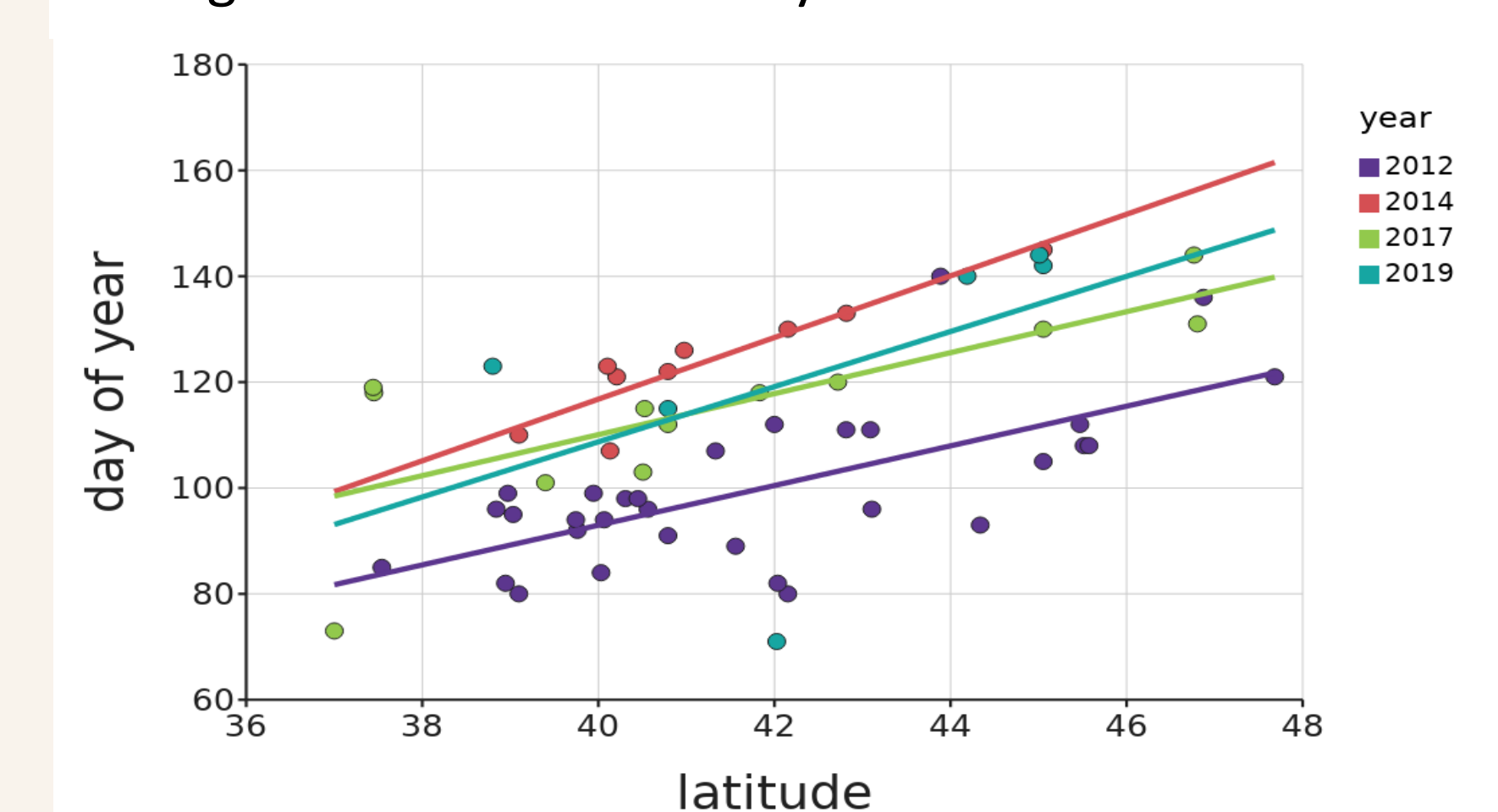
Analyze Data

- Analyze your class data or explore the national database
- Possible research questions:
 - Do lilacs bloom earlier in years with warmer winters?
 - When should we plan to go on a hike to view fall colors?
 - What plants will attract the most butterflies to our garden?

Access data at budburst.org/data



Example Graph: Timing of Lilac First Flower by Latitude Across 4 Years



Student Work

- Check out our **educational activities**, including lessons using curated Budburst datasets.

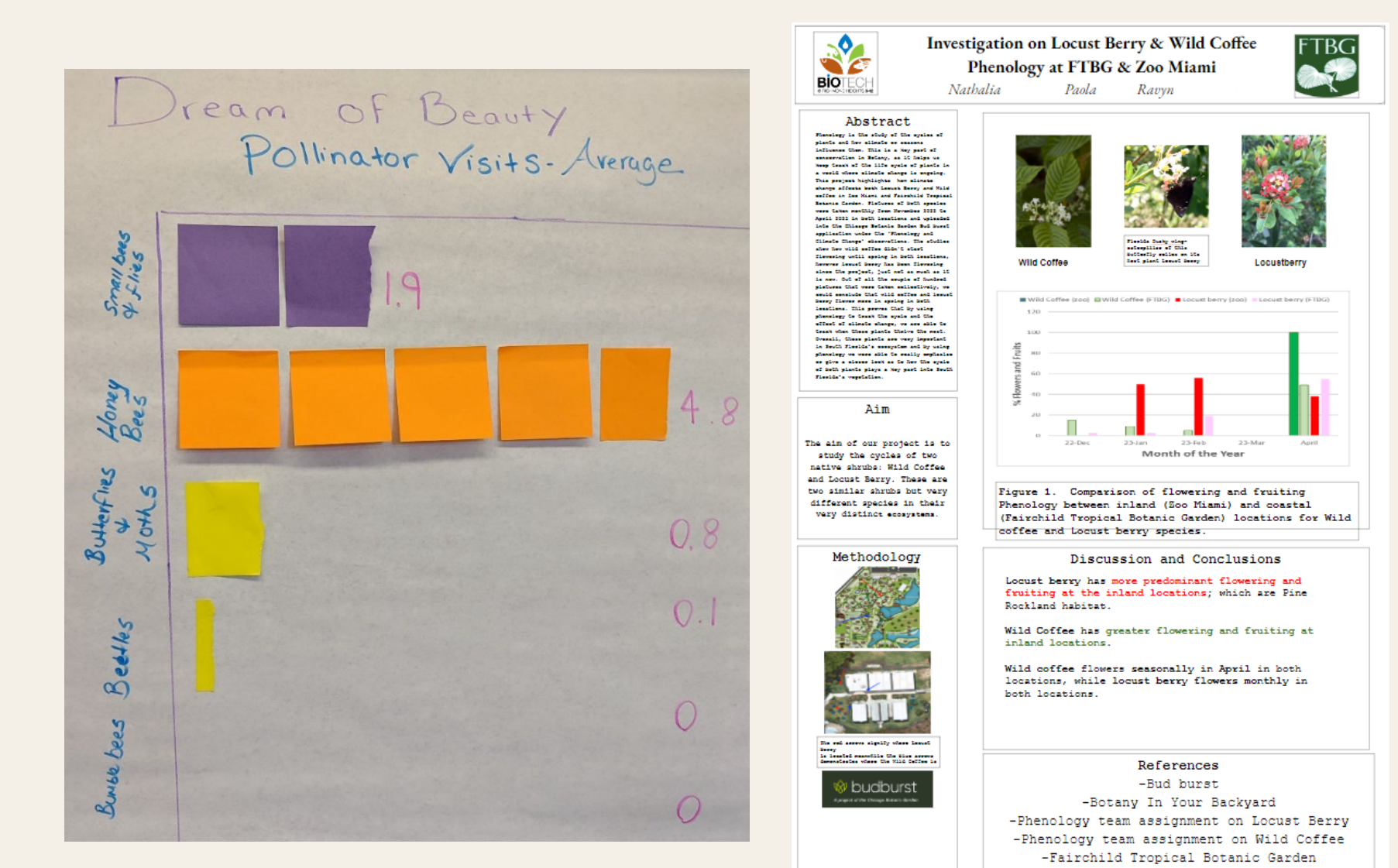


Activities
Budburst.org



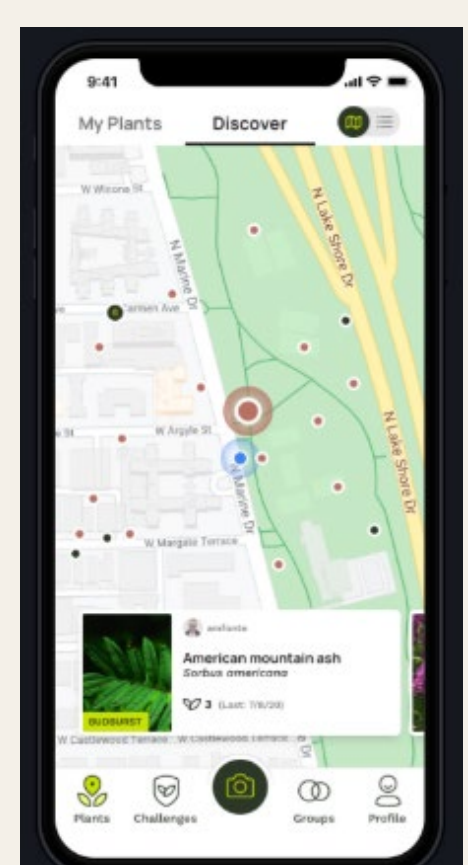
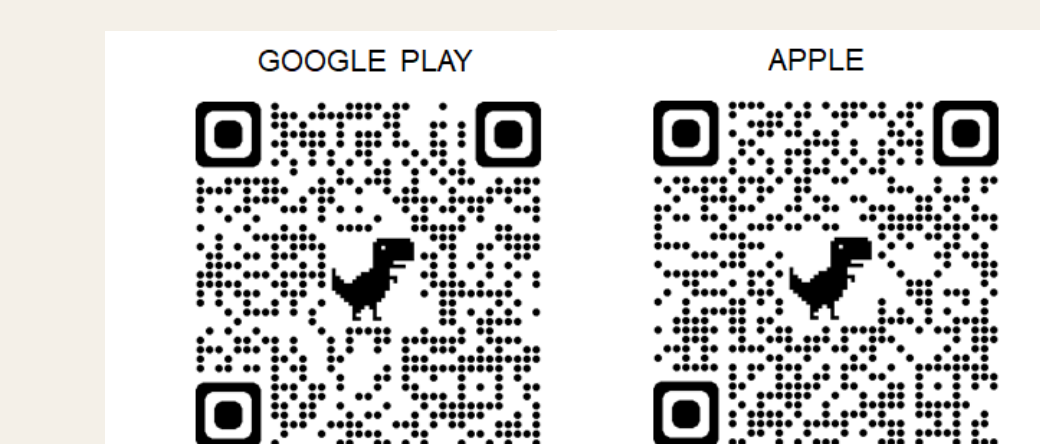
Data Activities
In prep

- Help students explore the data to ask and answer their own research questions.



Further Information

- See budburst.org for more information and resources
- Download our mobile app to begin making your own observations!



- Questions, comments, or ideas? Contact Sarah Jones at sjones@chicagobotanic.org or info@budburst.org.

Acknowledgements

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