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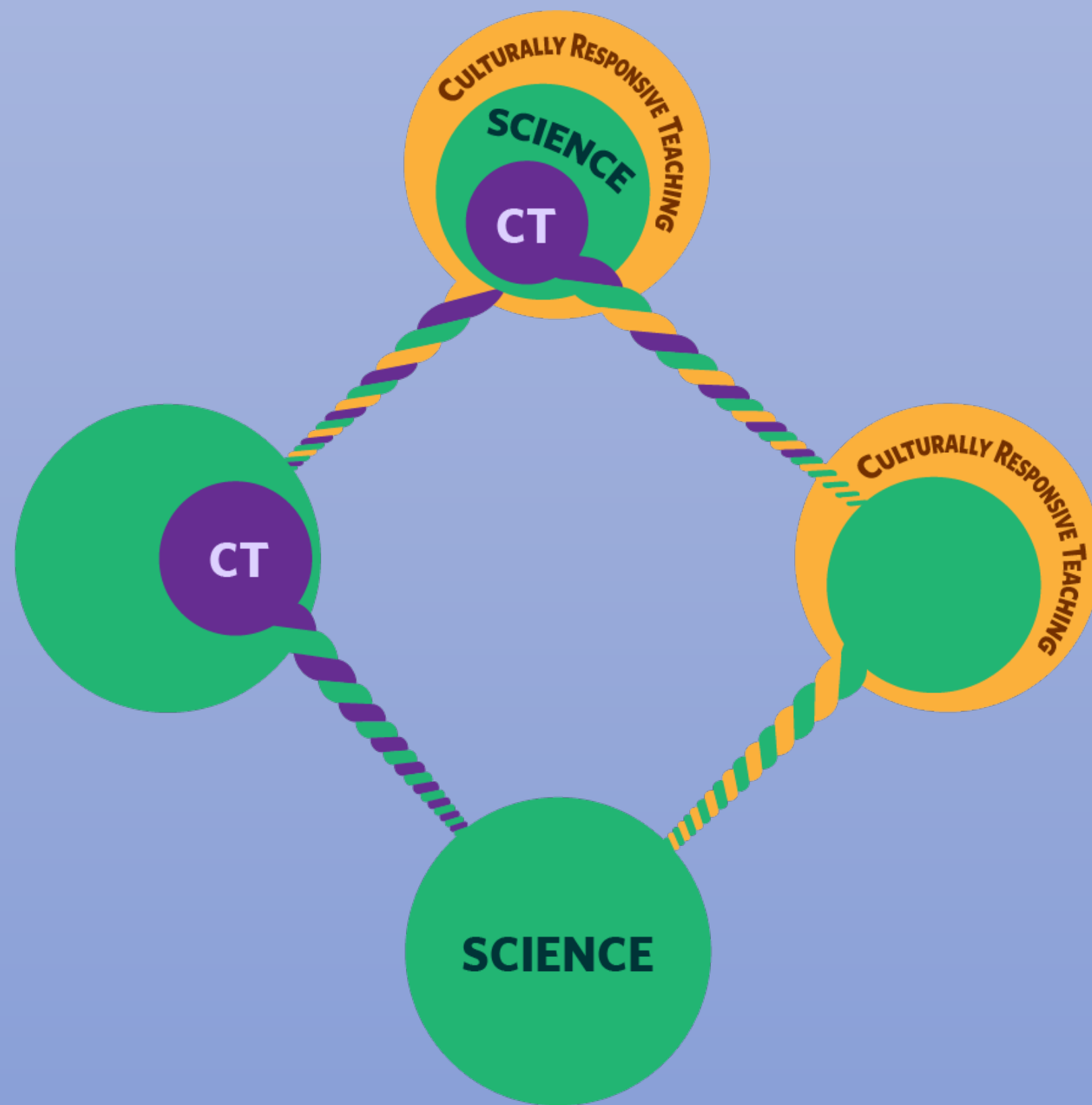
Project Overview

- Computational Thinking (CT) is ubiquitous in science⁵
- Yet opportunities to learn about CT are rare, often offered only at the high school level & to select students^{1, 7}
- This is especially a concern for groups underrepresented in STEM – women and Black, Hispanic/Latino/a/x, and Indigenous / Native American (BLNA)
- **Our project:** We are working with elementary science teachers to **integrate culturally responsive teaching (CRT)** and **computational thinking** into elementary science lessons.

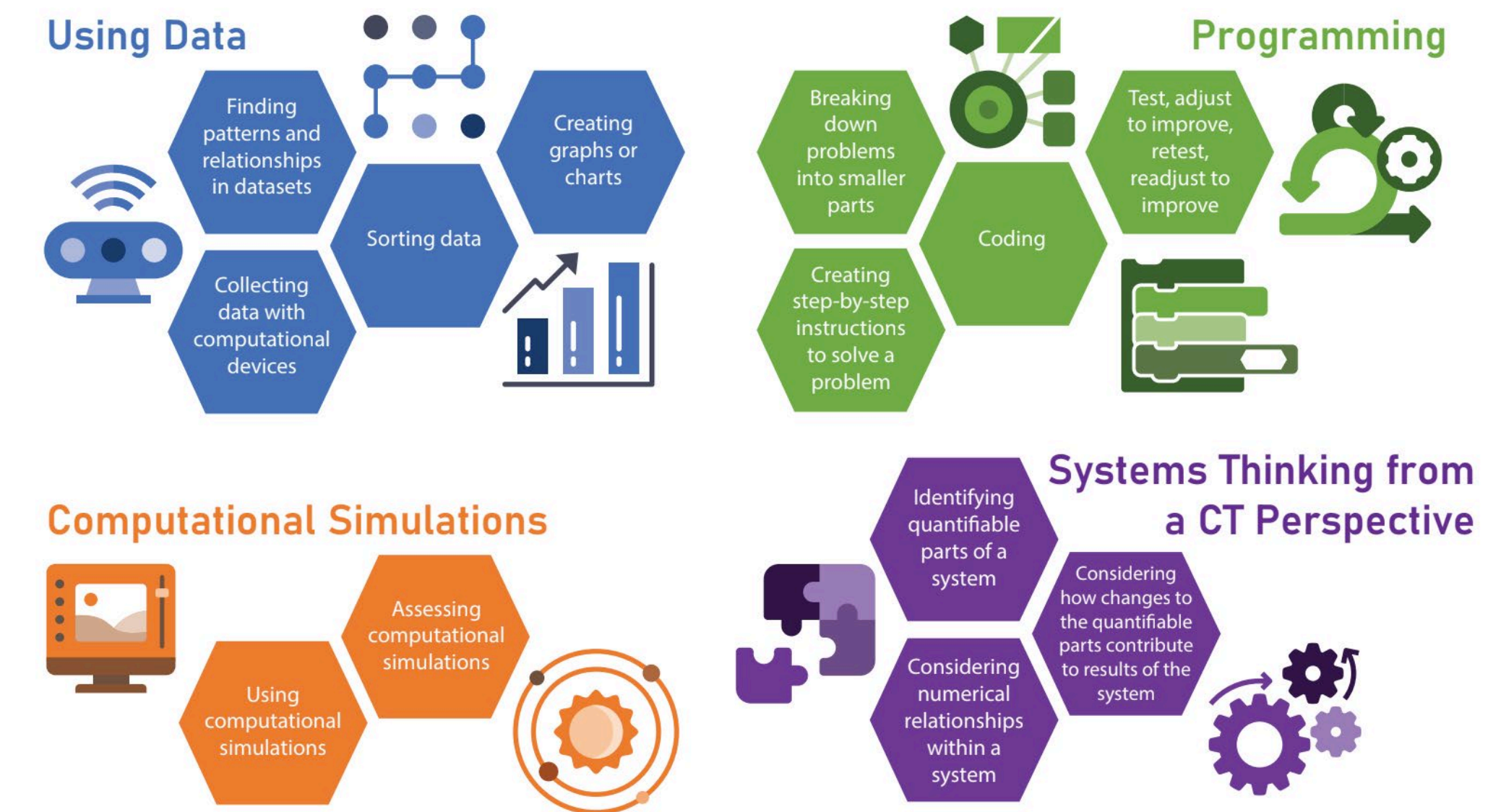
Developing Models

- To implement our PD successfully, we wanted to have coherent models for CT, CRT, and integration of CT and CRT into Science to guide our work with the teachers
- For CT, we used a model³ previously developed by in a prior grant with some of the same team members
- For CRT, we drew on several sources^{2, 4, 6} to operationalize
- For integration, we developed a model by starting with individual models for each team member, sorting them into different categories of models, and collectively pulling the shared key element together into a consensus model

Our Model for Integrating Computational Thinking, Culturally Responsive Teaching, and Science



Our Model for Computational Thinking³



Our Model for Culturally Responsive Teaching^{2, 4, 6}



Project To Date

Fall 2021	Spring 2022	Summer 2022	Fall 2022	Spring 2023	Summer 2023
<ul style="list-style-type: none"> - Initial team organization - Learning about CT, CRT, Science - Outlining PD & data collection plans 	<ul style="list-style-type: none"> - Developing model of CT, CRT, Sci integration - Designing year one PD 	<ul style="list-style-type: none"> - Implementing Round 1 PD with teachers in Southwest and Northeast school districts 	<ul style="list-style-type: none"> - Teachers implement lessons - Classroom observations - Ongoing support 	<ul style="list-style-type: none"> - Teachers implement lessons - Classroom observations - Ongoing support - Designing Round 2 PD 	<ul style="list-style-type: none"> - Implementing Round 2 PD with teachers in Southwest and Northeast school districts

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[Our Website](#)