CS-LISTEN
Equitable Computer Science in your School
Meeting 7

Weekly CPR Check In

Sharing Prompt of the Day:

◎ What was something really fun you did during the last month?

UC San Diego's
Consent & Assent forms

Are all your forms turned into your teacher?

Understanding the Problem

1. Choose a Research Question

2. Determine the methods

3. Design tools

4. Collect Data

5. Conduct Analysis

CS-LISTEN Student Co-Researchers (SCR) Cycle

You are here!

CS-LISTEN
CREATE EDS
National Science Foundation   UC San Diego

GOAL: Finalizing research tools

Week 6 Recap

- Congrats you started making your data collection tools.

- Finish those today. And make a step-by-step plan exactly how you'll use them.

Finalizing Research Tools

Continuing on with instrument construction…

★ Review the tools your Student Co-Research Team drafted last time.
★ Do you need to add more questions, compare the questions to the RQ, revise?
★ Make sure you look at the tips for creating good questions on slide 13.
★ Refine the questions you create against the "tips".
★ Look at all the drafted questions together.
● OPTION: Have students place a Star/Sticker/Post-it next to those that are definite keepers,
  ○ Place (a different kind of marker) next to questions that students are unsure about keeping. Does that question need to be refined/revised or dumped?

Tips: Good survey questions are

- ❖ **CLEAR** and specific
- ❖ **NOT TOO PERSONAL**
- ❖ Questions people will respond to **TRUTHFULLY**
- ❖ Questions people **KNOW** the answer to
- ❖ A **SINGLE** question, not "two questions in one"
- ❖ Avoid **BIASED** or leading language

Links to Slide Deck Support Videos and Hints to Help Teams Design for Different Methods

Survey Design Essentials Video – slide 15

Examples of Likert Scales – slide 16

Semi-structured Interviews Video – slide 17

Google Forms Best Practices: Top 7 Tips and Tricks – slide 18

Google Forms: How to directions – slides 19-24 (link goes to slide 19)

Optional: Rewatch all or part of the Tips for Creating **Good Survey** Questions

(4 minutes)

SURVEY DESIGN ESSENTIALS

Seven tips for good survey questions

KENNETH FERNANDEZ | Elon University

Examples of Likert Scales (5 point scale recommended)

Very Interested 5	Somewhat Interested 4	Neutral 3	Not Very Interested 2	Not at All Interested 1	
Very Much 5	Somewhat 4	Undecided 3	Not Really 2	Not at All 1	
Very Much Like Me 5	Somewhat Like Me 4	Neutral 3	Not Much Like Me 2	Not at All Like Me 1	
Very Happy 5	Somewhat Happy 4	Neutral 3	Not Very Happy 2	Not at All Happy 1	
Almost Always 5	Sometimes 4	Every Once In a While 3	Rarely 2	Never 1	

Response Set	1	2	3	4	5
Frequency	Never	Rarely	Sometimes	Often	Always
Quality	Very poor	Poor	Fair	Good	Excellent
Intensity	None	Very mild	Mild	Moderate	Severe
Agreement	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Approval	Strongly disapprove	Disapprove	Neutral	Approve	Strongly approve
Awareness	Not at all aware	Slightly aware	Moderately aware	Very aware	Extremely aware
Importance	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Familiarity	Not at all familiar	Slightly familiar	Moderately familiar	Very familiar	Extremely familiar
Satisfaction	Not at all satisfied	Slightly satisfied	Moderately satisfied	Very satisfied	Completely satisfied
Performance	Far below standards	Below standards	Meets standards	Above standards	Far above standards

Semi-structured interviews in 4 minutes

Review this if your team
decided to do interviews.

Google Forms Best Practices: Top 7 Tips & Tricks

- Explore types of questions
- Divide your questions into Sections
- Use skip Logic/Branch Questions
- Customize your survey!
- Piloting (check settings)
- Use bit.ly to shorten your loooong Google url
- Check responses immediately!
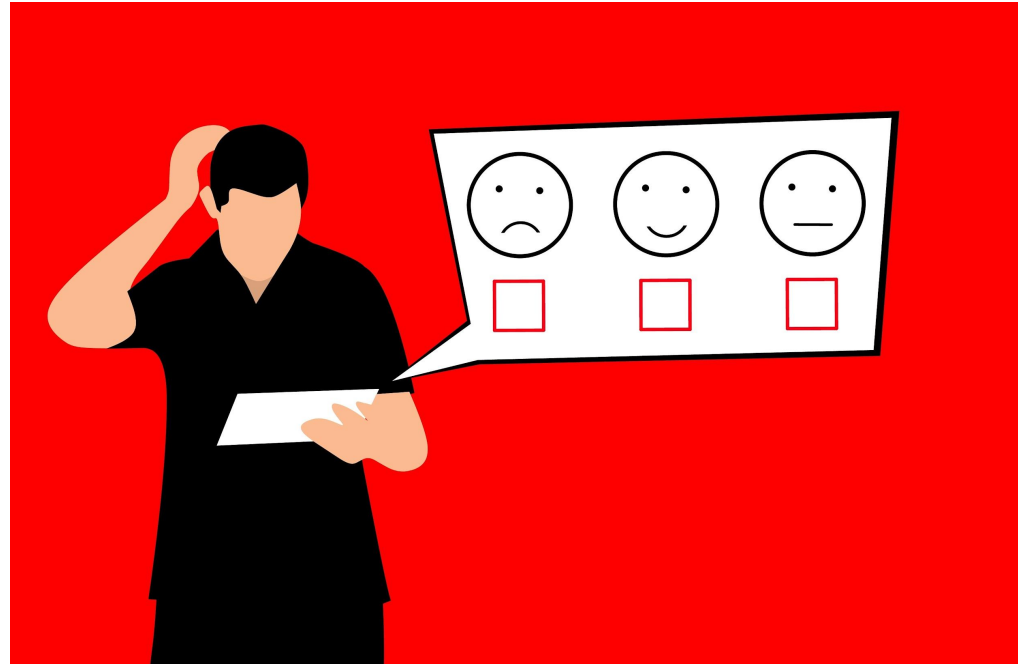
Explore different types of questions!

Divide your questions up into Sections

Asking a lot of questions can overwhelm your participants.

Dividing your questions into different sections can ease their survey-taking experience. Making Sections is important if you use Skip Logic questions (see next slide).

How to do Skip Logic Questions

Depending on the participant's answer, you can make the question skip to different sections.

This video shows how easily!
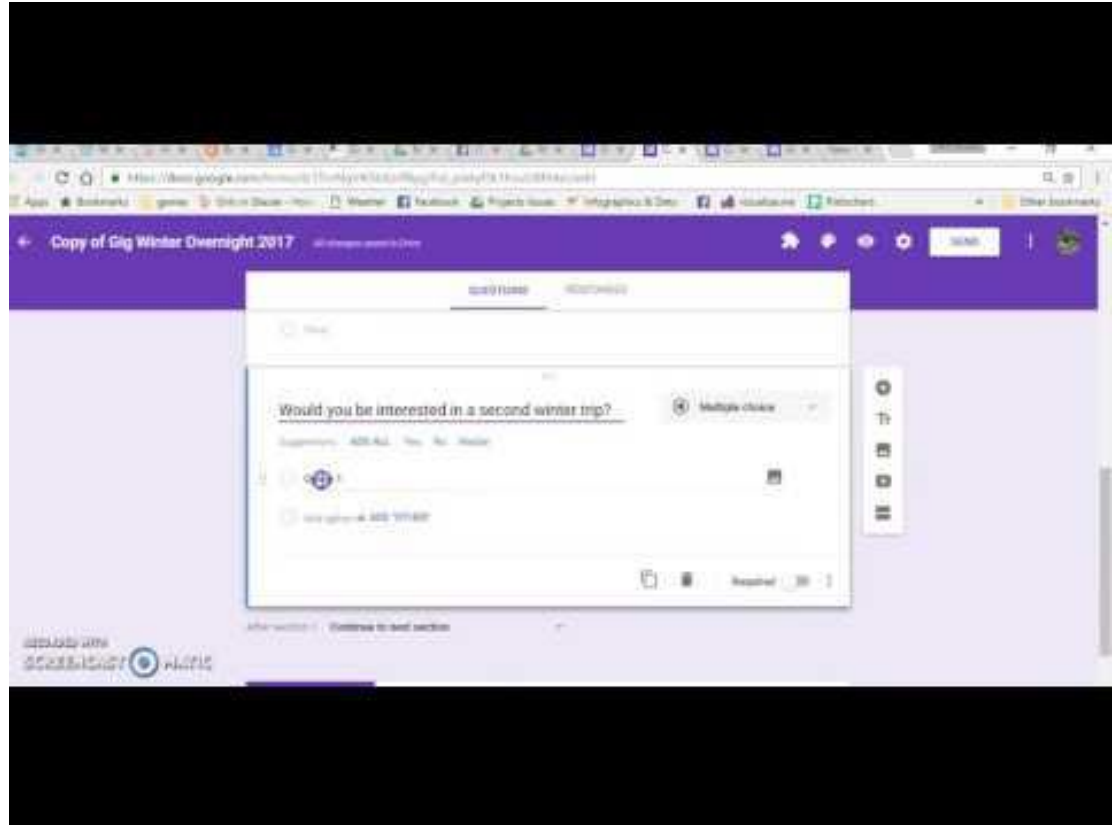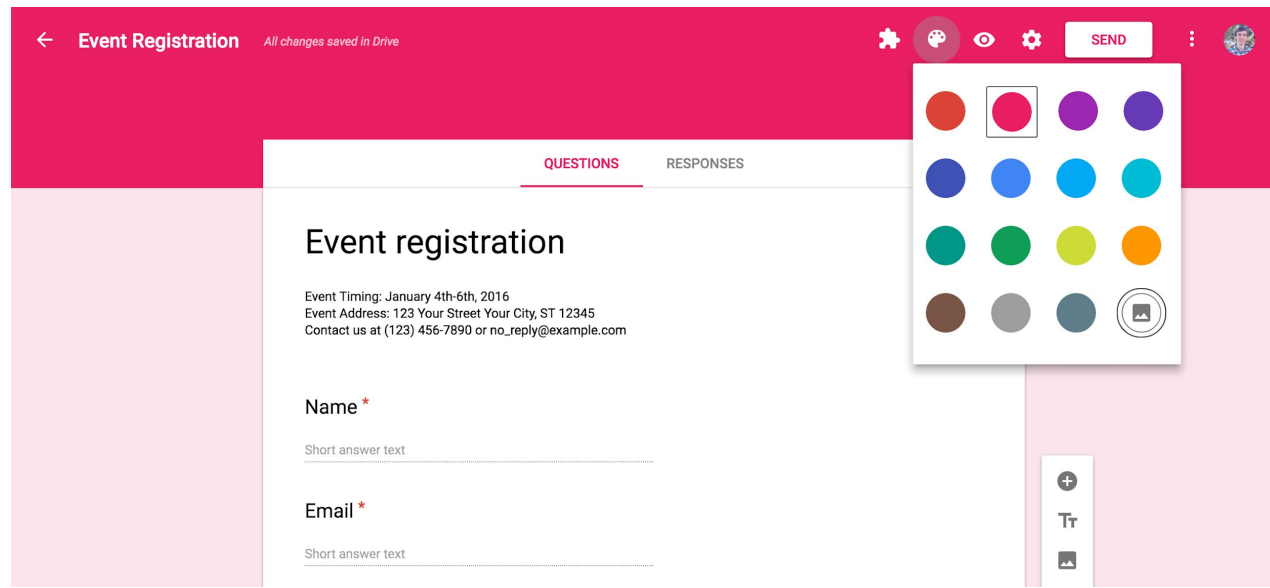
Customize your survey!
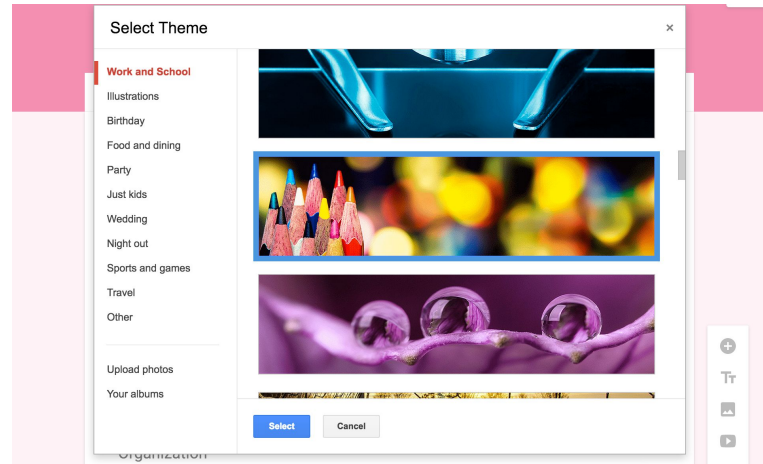
Edit the header and color of the form.

You pick a custom color.

Change the header image from Google Form library or use your own! (1600 x 400 px.)

Done? Pilot your Survey!

Check your settings.

Make sure no boxes are checked that restrict user access.

Make sure you use the "Send link"

Pro Tip: Never copy the link on your address bar. (Depending on your setting, users can edit your survey!)

Instead, use the link Google Form gives you when you click on the "Send" button at the top right corner.

Section 1 o

Sam

Target: we
the future.

After section

Send form
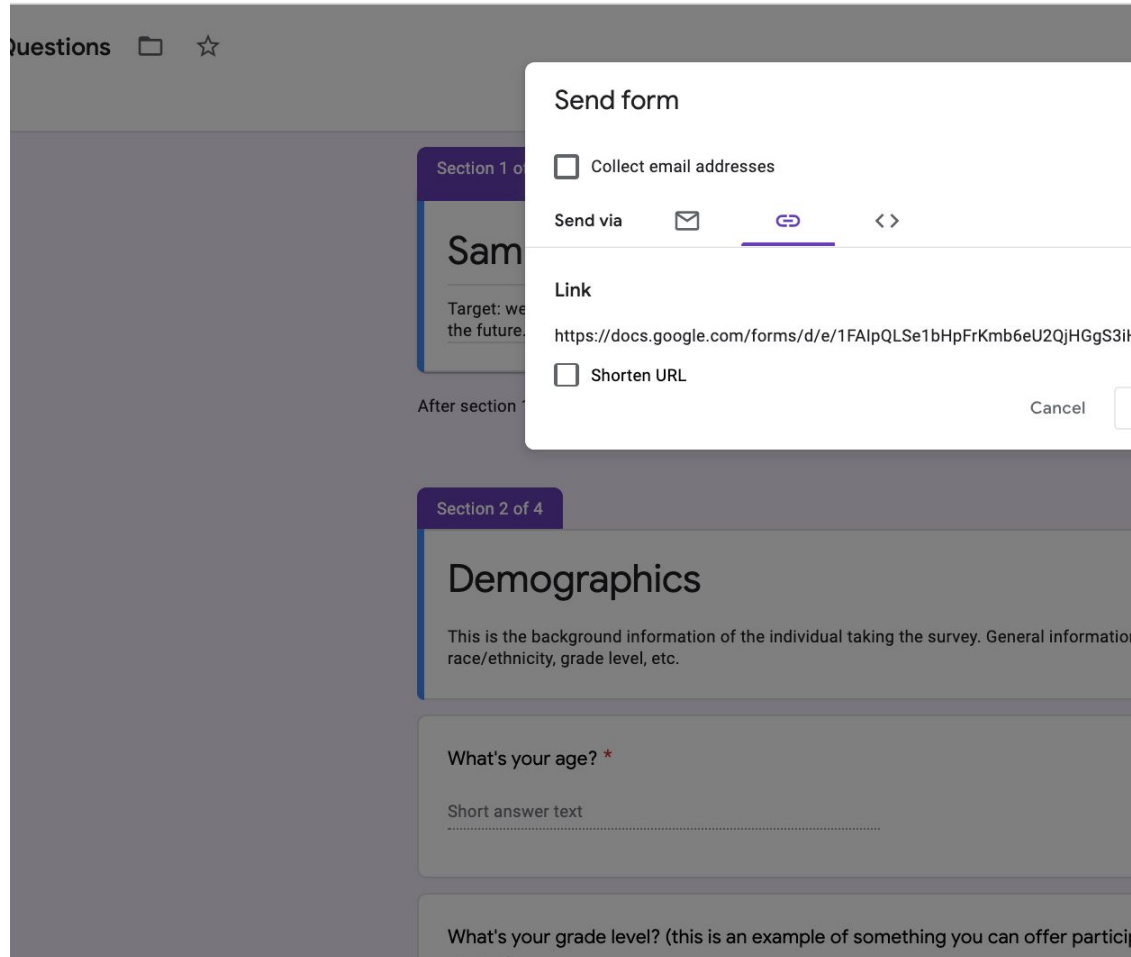
☐ Collect email addresses

Send via   ✉   🔗   < >

Link

https://docs.google.com/forms/d/e/1FAIpQLSe1bHpFrKmb6eU2QjHGgS3ih

☐ Shorten URL

Cancel

Section 2 of 4

Demographics

This is the background information of the individual taking the survey. General informatio
race/ethnicity, grade level, etc.

What's your age? *

Short answer text

What's your grade level? (this is an example of something you can offer partici

Wait! There's more!

Is your Google survey link too long? (Yes, always)

Use [bit.ly](bit.ly) to customize your link

You can also gather and track "click" analytics if you make a bit.ly account

Check Your Responses Immediately!

All data gathered are inputted into
Google Sheets (like Excel).
Click on the [Green Spreadsheet Button] to see!

Google Form also showcase snapshots visuals of your survey results
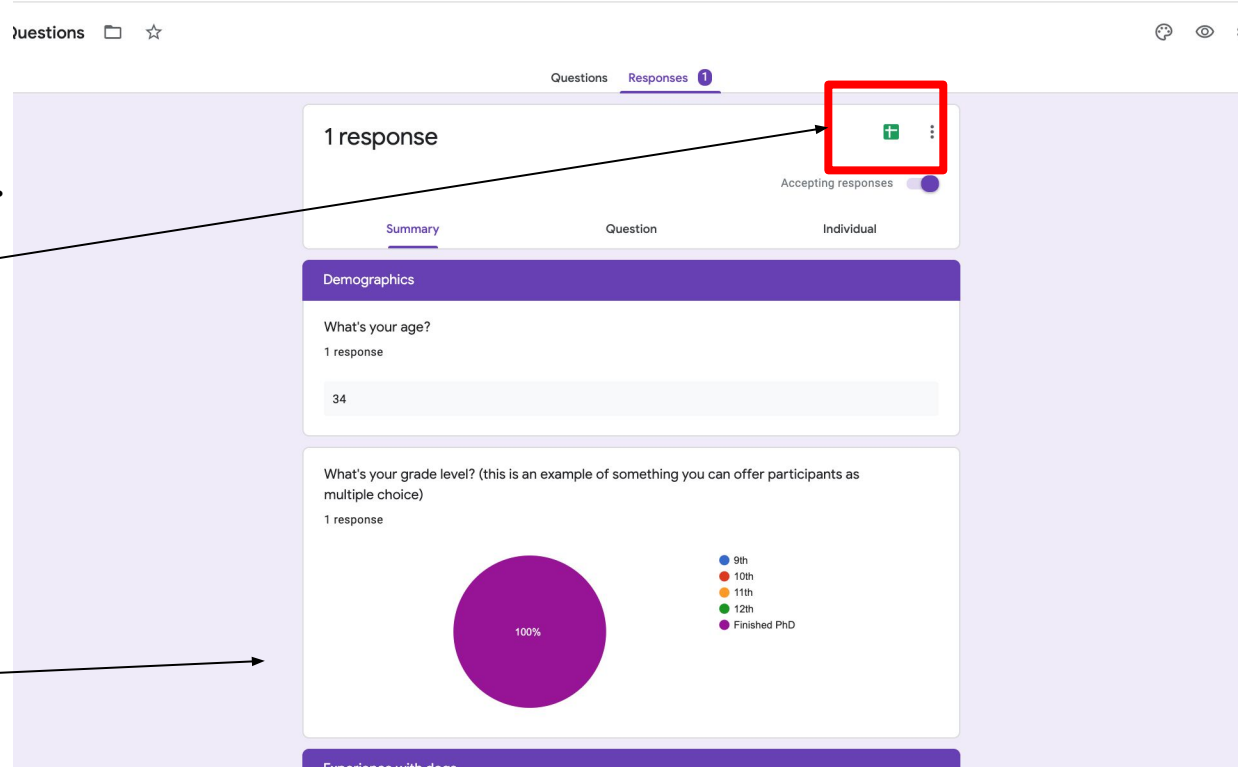
Data Collection Plan: Step-by-Step Timeline

Week 7-8

Collecting Data:
Implement action cycle and collect data

EXAMPLE: RQ is: *Why is computer science not talked about among 9th grade students?*

1. 03/04- SCR Teacher Lopez will send an email by Friday, March 4th to all 9th grade English teachers requesting that they give 10 minutes next week during their 9th grade English classes for the SCR team to give out a survey.
2. 03/08 – SCR teacher Lopez tells on March 8 the SCR team which teachers have agreed.
3. 03/09 – SCR team decided on March 9th which team members will go to which 9th grade English classes. Makes a schedule by name.
4. 03/10-03/11 – All SCRs who signed up to do so administer the survey in their assigned teachers' 9th grade English classes.

Good plans have **WHEN** (specific **DATES**) by when something happens; **WHO** is supposed to do it; **WHERE** it happens.

Data Collection Plan: Step-by-Step Timeline

Week 7-8

Collecting Data:
Implement action cycle and collect data

Team RQ is:

1.

2.

3.

4.

5.

6.

7.

Good plans have **WHEN** (specific **DATES**) by when something happens; **WHO** is supposed to do it; **WHERE** it happens.

Developing Question and Protocol:

What systemic boundaries exist at your school that create inequity and how do we address it?
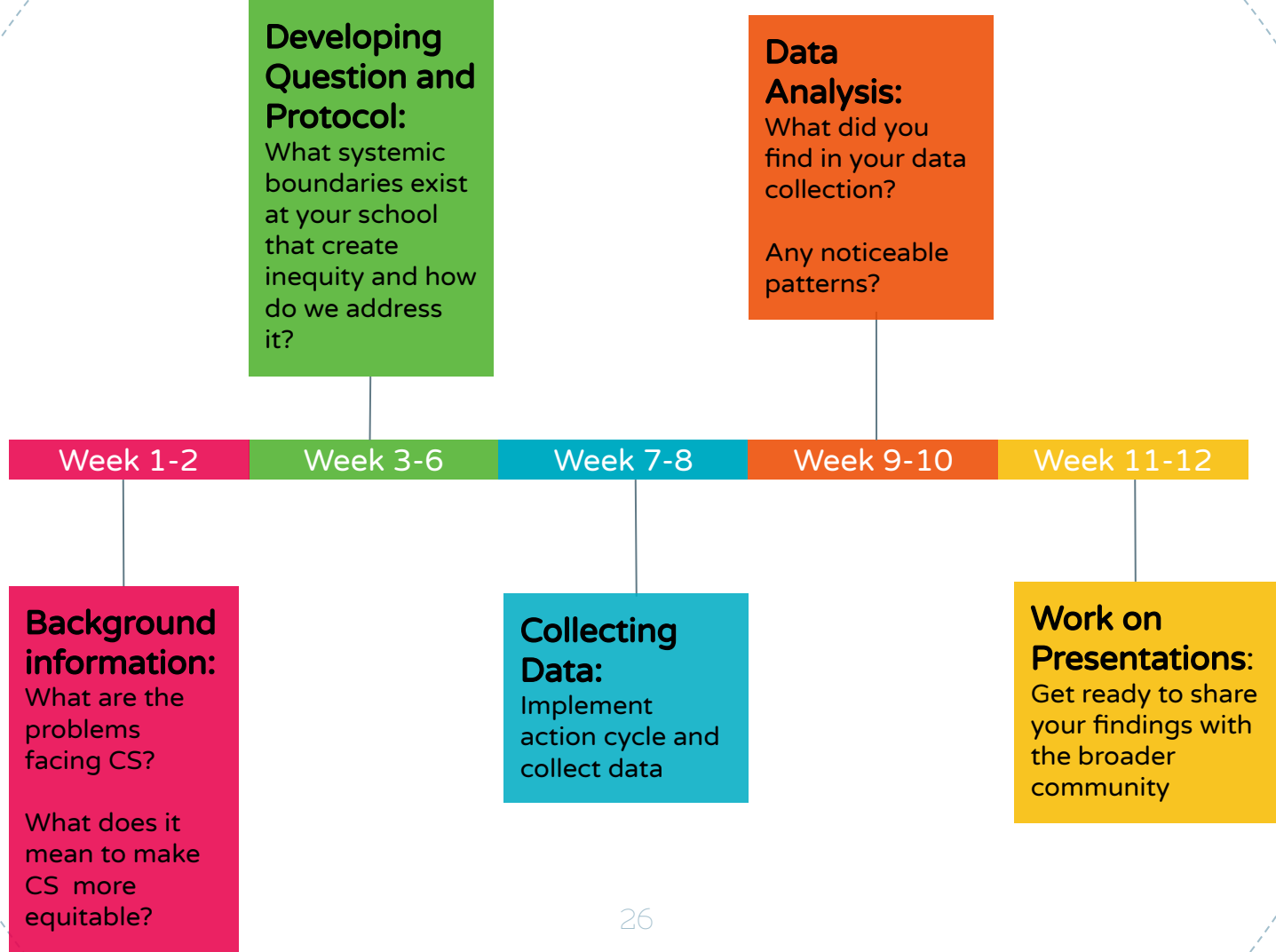
Data Analysis:

What did you find in your data collection?

Any noticeable patterns?

Week 1-2	Week 3-6	Week 7-8	Week 9-10	Week 11-12

Background information:

What are the problems facing CS?

What does it mean to make CS more equitable?

Collecting Data:

Implement action cycle and collect data

Work on Presentations:

Get ready to share your findings with the broader community

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SAVE THE DATE!

May 18th

CS LISTEN UP Conference

(Location TBD)

4:30 pm - 7:00 pm