## Next in Data Visualization

#### @michelle\_borkin



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#### RadInstitute



RADCLIFFE INSTITUTE FOR ADVANCED STUDY HARVARD UNIVERSITY

#RadDataViz @alyssa\_a\_goodman





# Which apple did you like the best?

Granny Smith Apples

- 1. Jaiden
- 2. Victoria
- 3. Nahira
- 4. Arely
- 5. Anahi
- 6. Julian
- 7. Jose
- 8. Giovanni
- 9. Eliazar

Golden Apples

- 1. Jimena
- 2. Paige
- 3. Alan

Red Delicious Apples

- 1. Gurkirat
- 2. Alex
- 3. Steve
- 4. Isabela
- 5. Andrea
- 6. Neha
- 7. Kristian
- 8. Ms. Alma
- 9. Ms. Maria





skin



Plesh



core

eds

The most: green
The least: yellow

# My favorite kind of apple is.







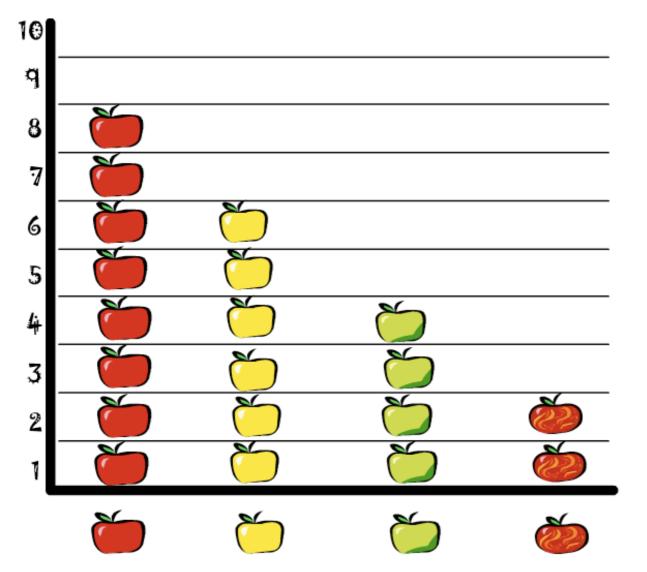


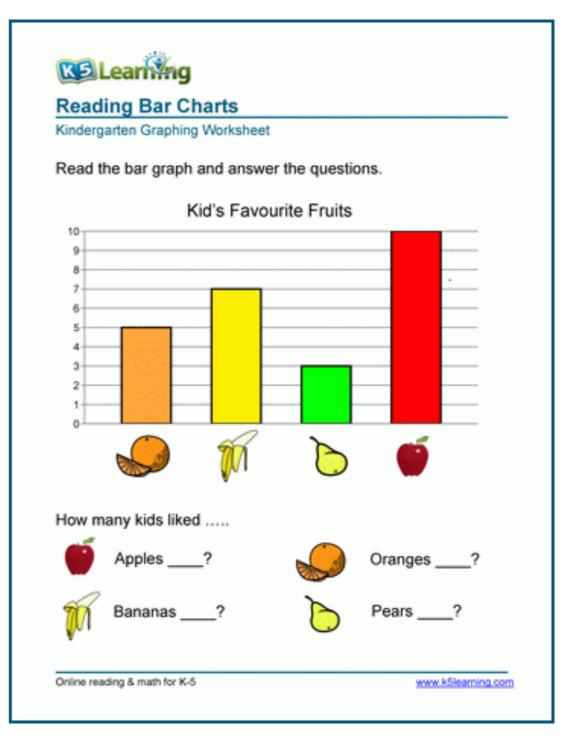


#### Our Favorite Apples

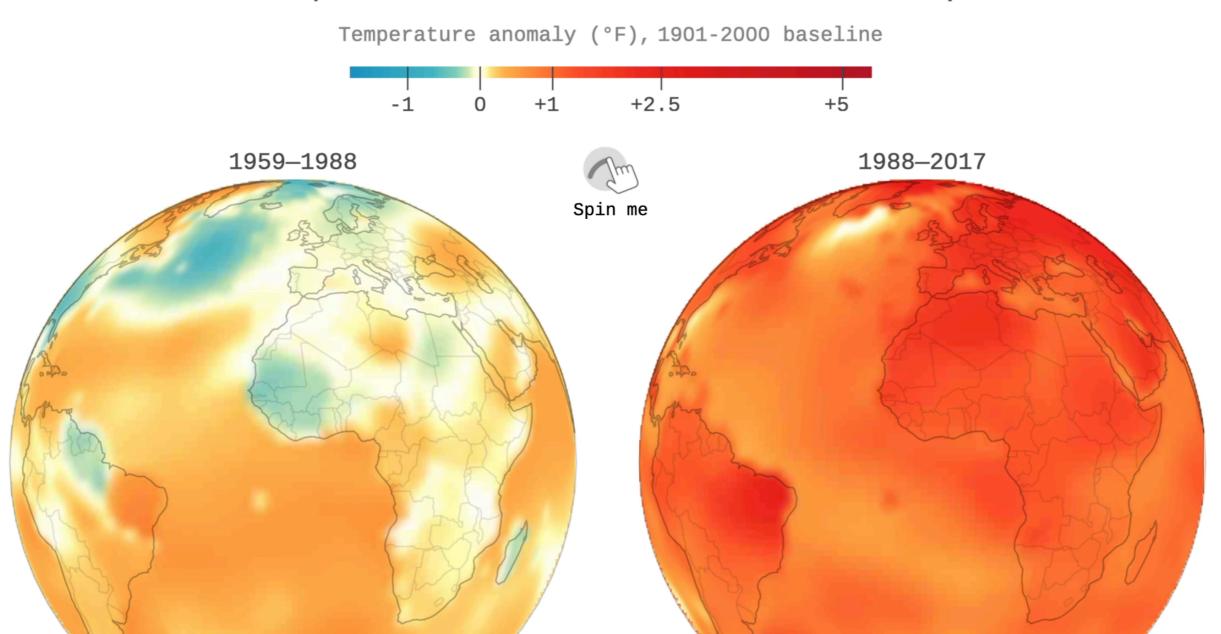


Directions: Make a graph by dragging the apples:





#### Temperatures before and after Hansen's Senate testimony



Data: NASA's Goddard Institute for Space Studies; Graphic: Harry Stevens/Axios



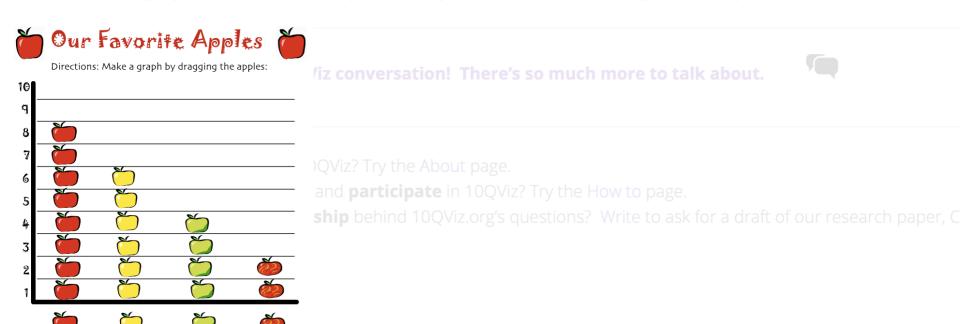


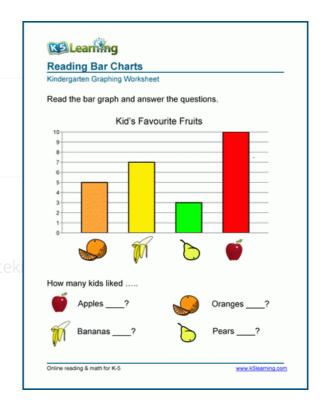
#### TEN QUESTIONS TO ASK WHEN CREATING A VISUALIZATION



#### The 10 Questions

- 1. **Who** | Who is your audience? How expert will they be about the subject and/or display conventions?
- 2. **Explore-Explain** | Is your goal to explore, document, or explain your data or ideas, or a combination of these?
- 3. Categories | Do you want to show or explore pre-existing, known, human-interpretable, categories?
- 4. **Patterns** | Do you want to identify new, previously unknown or undefined patterns?
- 5. **Predictions & Uncertainty** | Are you making a comparison between data and/or predictions? Is representing uncertainty a concern?
- 6. **Dimensions** | What is the intrinsic number of dimensions (not necessarily spatial) in your data, and how many do you want to show at once?
- 7. **Abstraction & Accuracy** | Do you need to show all the data, or is summary or abstraction OK?
- 8. **Context & Scale** | Can you, and do you want to, put the data into a standard frame of reference, coordinate system, or show scale(s)?
- 9. **Metadata** | Do you need to display or link to non-quantitative metadata? (including captions, labels, etc.)
- 10. **Display Modes** | What display modes might be used in experiencing your display?







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Curious about the **origins** of 10QViz? Try the About page.

Want to learn how best to use and participate in 10QViz? Try the How to page.

Want to read about the **scholarship** behind 10QViz.org's questions? Write to ask for a draft of our research paper, Coltekin & Goodman 2019.

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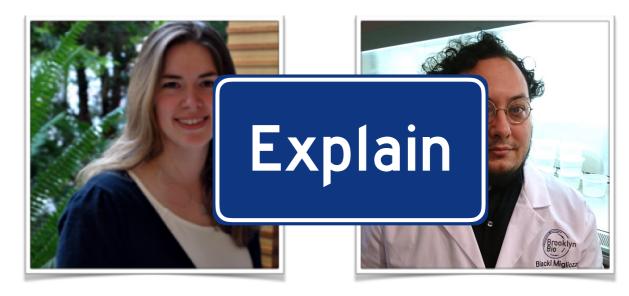


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# Explore This afternoon's discussion... Explain