

Computational Thinking Boosters: Data & Analysis in K-2

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[Link to recording](#)



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Introductions



Agenda

What: 30min CT Boosters(K-2)

Plan for today:

- 5 minutes: **Introduction & Vocabulary**
- 10 minutes: **Using Glyphs for Data Collection and Analysis**
- 10 minutes: **Seed Germination, Group Tree, Classroom Graphs (birthdays, word walls, etc.), When I was Young in the Mountains**
- 5 minutes: **Q & A**



Guiding Question:

How do we collect, analyze, and store data to understand relationships in primary grades?

- similar/different
- same
- compare
- contrast



Technology & Computer Science in KY



7 Big Ideas of Technology

- Global Collaborator
- Computational Thinker
- Creative Communicator
- Empowered Learner
- Digital Citizen
- Knowledge Constructor
- Innovative Designer

5 Key Concepts of CS

- Networks & the Internet
- Using Algorithms & Programming
- Data Analysis
- Computing Systems
- Impacts of Computing

Kentucky Academic Standards (KAS) for Technology

Computational Thinker



Standard:

CT1. Develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.

Learning Priority:

B. Collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision-making.

Indicator(s) for grades K-2:

1. Utilize an age-appropriate digital tool to collect, organize, and represent data (ex.: online surveys, spreadsheets, graphs, charts, etc); students will use this data to look for similarities and identify patterns and categories within the data set (ex.: simple data mining), with guidance and support.



Kentucky Academic Standards (KAS) for Computer Science



Data & Analysis

Storage

E-DA-01: Appropriately store and modify digital files.

Collection, Visualization & Transformation

E-DA-02: Standard 2: Collect and visually display data using appropriate applications.

Inference & Models

E-DA-03: Standard 3: Analyzing data for trends and relationships

Impacts of Computing

Safety, Law and Ethics

E-IC-04: Standard 4: Understand the importance of proper use of data and information in a computing society.



Primary

(K-2)

- How to teach data through your current teaching practices.
- How to integrate data and analysis into various content areas.





Vocabulary: Data & Analysis



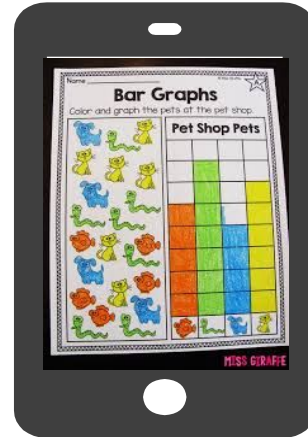
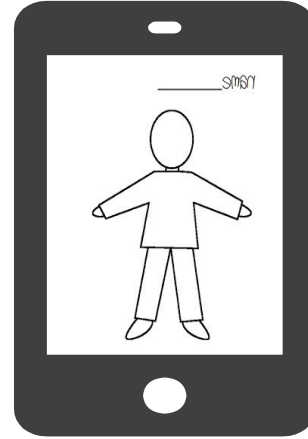
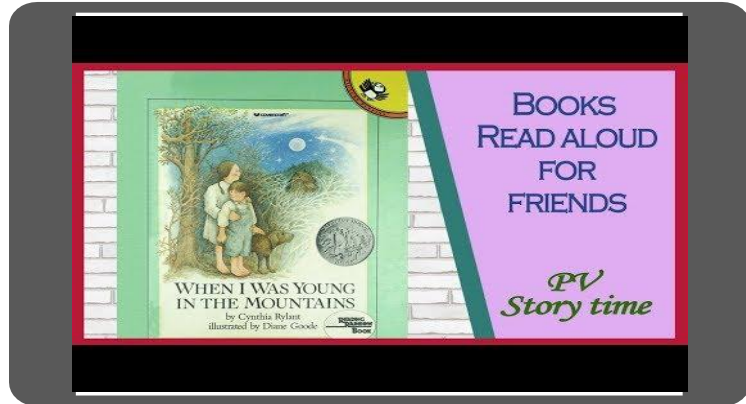
Using Glyphs for Data Collection and Analysis

Show and explain your web, app or software projects using these gadget templates.



When I was Young in the Mountains

Use a culture themed children's book to generate data. Glyphs, pictographs, bar graphs and Google Forms are all ways to collect and analyze data!



hi

How Are You?

How did you sleep last night?

1 2 3 4 5

Didn't Sleep At All ☐ ☐ ☐ ☐ ☐ Best Night's Sleep Ever

How was your breakfast or lunch?

1 2 3 4 5

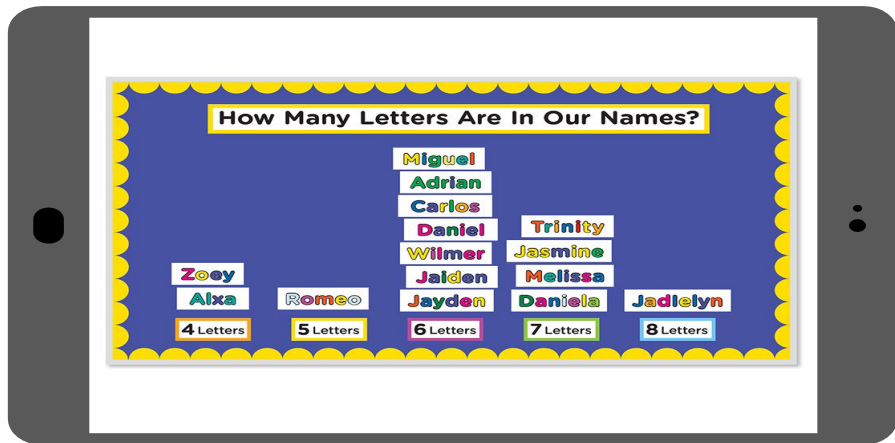
Skipped breakfast/lunch ☐ ☐ ☐ ☐ ☐ I'm Full

How are you today?

Classroom Graphs

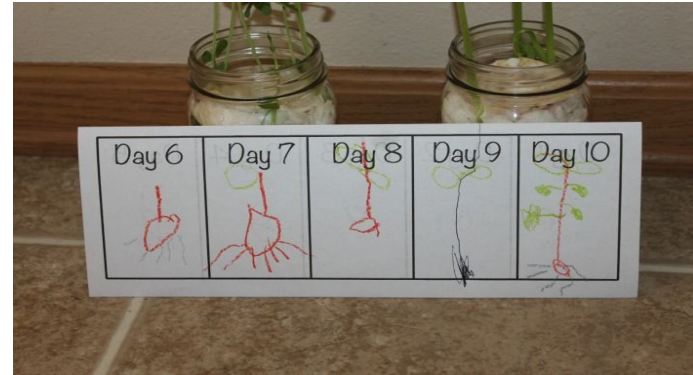
(birthdays, word walls, etc.)

Show and explain your web, app or software projects using these gadget templates.



Seed Germination

- Teacher example
- Individual Students
- At home
- At school



Group Tree

Draw a tree at various times during the year.

Students will observe the changes throughout the seasons.

