

Everyday Settings & Family Activities

P-based Culturally Relevant Project Example



Project Summary

Title: The Many Functions of Walking

Website: The Many Functions of Walking

Subject Area/Grade Level: ELA/Math Middle School

How can we plan a profitable walk-a-thon to benefit a cause we care about?¹ In this project, students work together to plan a walk-a-thon to raise money for a cause or event that is important to their community. (As an alternative, you might consider having students partner with a walk-a-thon that is already happening.) Examples may include, but are not limited to, COVID-19 research, hurricane relief, cancer research, a school dance, or an eighth-grade graduation event. You also might want to consider discussing how students can plan a virtual walk-a-thon acknowledging current conditions of the world. While planning the walk-a-thon, each team of students engages in a series of activities that require them to use functions to model different types of sponsorships, predicted times based on walking rates, and per-person costs for running the event. Students create and maintain a blog as a method of advertising, soliciting sponsors, and explaining their work with functions to the community.

Learning Goals

KEY STANDARDS

Common Core State Standards—Mathematics

- 8.F.A.1 Understand that a function is a rule that assigns exactly one output to each input.
- 8.F.A.2 Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).
- 8.F.B.4 Construct a function to model a linear relationship between two quantities.

Common Core State Standards—ELA-Literacy

- W.8.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
- W.8.6 Use technology, including the internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others.
- W.8.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

(CCSS are listed for Grade 8, but this project can be applied in Grades 8–9.)

¹ The many functions of walking. (2020). MyPBLWorks. Retrieved August 22, 2020, from <https://my.pblworks.org/project/many-functions-walking>

Major Products

1. **Individual Products:** Blog post for class walk-a-thon blog that includes a mathematical analysis
2. **Team/Whole Class Products:** Walk-a-thon event to raise money for local cause
3. **Making It Public:** Class blog to share process of walk-a-thon development with community and walk-a-thon event in which the community will participate

Considerations

CONSIDER YOUR STUDENTS

- What, if any, fundraisers have your students engaged in in the past? Are there student leaders in your class who have organized fundraisers and could share their experiences with their peers?
- Are there any students in your class(es) who might have difficulty participating in the walk-a-thon? How can you make sure they are fully included in the project? What other kinds of “thons” might you organize if walking is not a good fit for your class?

CONSIDER THE CONTEXT

- What are some authentic needs in your community that students might be inspired to raise money for?
- Are there family members or local organizations who organize walk-a-thons or similar events? In what ways might you partner with these existing events?
- Are there local businesses that could sponsor participants in the walk-a-thon to reduce the financial strain on individuals and families?
- What is the technology situation at your school? Will every student be able to work on the blog or will you need to book computer lab time or partner students strategically?
- What support will you need from your technology team to set up the class blog and make sure every student has a log in?

CONSIDER THE CONTENT & SKILLS

- How familiar are your students with the concept of a function or with modeling real-life scenarios using variables? What additional support (or extensions) might be needed?
- How well do you know your students’ writing abilities and specific literacy needs? Is it possible to collaborate with their English teacher(s) to make sure they are supported/challenged?
- What technical skills are required to produce engaging multimedia blog posts? How can you support students in developing these skills? Is there someone in your school who can help students troubleshoot their blogs?
- What aspects of functions do your students typically struggle with? How can you leverage the walk-a-thon context to give students authentic experiences with these skills? What aspects might need additional examples or contexts to stretch student thinking?

Explore More: The Water Quality Project



VIDEO: The water quality project. (2020). PBLWorks. Retrieved August 21, 2020, from <https://www.pblworks.org/video-water-quality-project>