Data source title: got soil!
Specific link for the data: https://www.esf.edu/pubprog/brochure/soilph/soilph.htm

Lesson enhancement: Describe how the data enhances a topic that you currently teach or plan to teach. Include a 1 paragraph statement about your personal feelings regarding using data.
In order for the students to take ownership of their school garden and learn from it, they will have to understand the concept of gardening in-depth. Gardening starts with the presence of soil and if we don't have good soil, obviously the whole project will fall through. So, in order for the students to learn whether the soil, which is present in the school ground, is good or not they will have to conduct study and extract data to make informed decisions, which in our case is using the vinegar/baking soda experiment to test the soil from various parts of the school ground to find out it's pH level. New objectives that can be attained through the collected data will be to learn about acids and bases, and how the pH level affects the plants and the nutrients in it. We can also learn about the make-up of the soil and how not all soils differ from place to place. Obtaining the data will also change the perception for the students that any plant can grow as long as it has been planted in the soil. For optimal results, soil's pH level should be more neutral.

Using Data: What is your opinion about using data in the classroom, either collected by student-observation or from another source?
Using student collected data through experiment or another source in the classroom helps the students to study the topic/subject in-depth. In our case, we could just tell students to plant seeds or seedlings in the various parts of the school ground but they won't really learn anything from that exercise.

Visual Presentation: What is your rationale for the use of the data source?
Using the data source helps the students make comparison with the data they collected and study the difference between the them. In our case, using graphs to plot the data collected, students will be able to see which plants will grow best in the soil that they have in their school ground.

Clearly explain how the data can be used to integrate across STEM content areas.
Studying the pH level of the soil can easily be extended across the STEM content areas. Study of soil itself comes under earth science, and then collecting data on the pH balance of the soil and then putting it in the graph format will come under math. Geographically how soil is different from one place to another, comes under social studies.

Interdisciplinary context: How can the data be used to create interdisciplinary lessons, discussions or activities in your classroom. How can you connect to multiple content areas?
In math, we can do a lesson on creating charts or graphs using the data obtained from the experiment and analyze it. During social studies, same data can be used to study soils in different part of the country and the economical influence of farming in areas such as these. Expanding on the lesson of school garden, the students can be asked to engineer rainwater collection system and/or water irrigation system for automated watering of the garden.