



Teaching From The Grave

An Interdisciplinary Lesson Plan for Middle School Students

The following lesson plans were created by Paul Wilgenkamp, a middle school teacher at Minnesauke Elementary School in East Setauket, NY, in collaboration with Dr. Frank Turano of the Three Village Historical Society. The *Teaching From the Grave* projects, described below, help students develop their research and critical analysis skills by recording, organizing and interpreting gravestone information from their town's past. The lesson plans are intended to provide blueprints for schools interested in creating similar projects in their local communities throughout New York State. Clearly linked to New York State Standards, this project is a wonderful example of an innovative lesson plan which challenges and excites students both inside and outside the classroom. Together with **Cablevision's Power to Learn, The History Channel®** is proud to endorse the *Teaching From the Grave* project, a winner of one of the network's *Save Our History®* awards. The *Save Our History* awards recognize outstanding community-based projects and activities which encourage students to learn more about historic preservation and their local history. **The History Channel** and **Cablevision's Power to Learn** are pleased to present these lesson plans in their entirety and hope other schools will adopt *Teaching From the Grave* or similar projects which bring history into the lives of young people in new and exciting ways.



Foreword



Cemeteries are accessible primary sources that exist in virtually every community. They reflect the hopes and disappointments of the former residents as well as their successes and shortcomings. To a student of history they provide specific information that can be collated and analyzed to uncover the life patterns of residents at specific times. This unit is a guide to the use of the cemetery resources for middle school students. Students should do preliminary historic research on the development of their community. The visit to the graveyard should be used to generate enthusiasm among the students. The preliminary research will alert the youngsters to the past members of the community and some of their stories. The succeeding lessons will carry the researchers through the analysis process and hopefully generate specific questions about the community. The data can then be grouped to answer these questions. Through this process new insights into the community's past can be developed.

Dr. Frank Turano

*Three Village Historical Society
and State University of New York –
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Educator Introduction

In embarking on this historical journey, students in your class will discover information that makes their community unique. They may uncover patterns of immigration, emigration, or realize the major impacts of disease on society through this “backwards” investigation. Once a trend in the data is discovered, the investigation begins to try and explain “why?” Perhaps the cause was the influenza pandemic of 1918 or a natural catastrophe specific to your community. Whatever the case may be, you will light the spark of natural inquiry within your students when you ask them to use the information the graveyard provides in piecing together the past.

A wide array of New York State and National Learning Standards are covered within these activities. This unit is divided into six separate activities that can be completed individually throughout the school year or taught as a combined unit. You will have many opportunities to modify these suggested lessons to make the learning experience relevant to your specific community and area of study.

Activity 1 is a field trip to gather the information from the headstones at the cemetery. While some communities may already have a database of this information, it is suggested that you include this portion of the project as a means of maximizing student engagement with primary resources. For many students this will be their first opportunity to record actual research data. Much care should be given to ensure this is done carefully as the remainder of this unit depends upon this data.

Activity 2 is the data entry section of this unit. While this section is listed as its own activity, no actual group class time needs to be devoted to this lesson. Instead, pairs can take turns entering their data in the spreadsheet if you prefer.

In **Activity 3** the real detective work begins to analyze data and identify trends. This activity will require students to use many mathematics skills such as: mean, median, mode, range, graphing and percentage, to mention a few. But first, it is important that the young historians make some choices about how they should group the raw data.

The next section of this unit, **Activity 4**, offers a real challenge to the students’ critical thinking and inquiry abilities. This interdisciplinary activity has students utilizing historical texts, graphs, and data in an effort to substantiate their findings.

This activity will help transform learner into teacher. Creating student-generated, data-based questions in **Activity 5** is a great way for students to reflect upon the connections they have realized throughout this unit. Developing these unique data-based questions reflective of the local community is a motivating way to demonstrate student knowledge. Moreover, connecting this data with historical documents and texts solidifies students’ knowledge of their past. This information can then be used to enrich curriculum for younger students.

The true highlight of this unit is being able to share the information students collected and interpreted. The presentation of **Activity 6** will demonstrate the unique knowledge these students have acquired. They will leave this historical journey as more passionate and educated lovers of history.

Paul Wilgenkamp

*Educator
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New York State Standards

This subsequent unit satisfies the following New York State Standards. For a complete list of these standards visit: www.emsc.nysed.gov/nysatl/standards.html

Social Studies

- **Standard 1: History of the United States and New York** – Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in the history of the United States and New York.
- **Standard 2: World History** – Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in world history and examine the broad sweep of history from a variety of perspectives.
- **Standard 3: Geography** – Students will use a variety of intellectual skills to demonstrate their understanding of the geography of the interdependent world in which we live – local, national, and global – including the distribution of people, places, and environments over the Earth's surface.

Mathematics, Science, and Technology

- **Standard 1: Analysis, Inquiry, and Design** – Students will use mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.
- **Standard 2: Information Systems** – Students will access, generate, process, and transfer information using appropriate technologies.
- **Standard 3: Mathematics** – Students will understand mathematics and become mathematically confident by communicating and reasoning mathematically, by applying mathematics in real-world settings, and by solving problems through the integrated study of number systems, geometry, algebra, data analysis, probability, and trigonometry.
- **Standard 4: Science** – Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.
- **Standard 5: Technology** – Students will apply technological knowledge and skills to design, construct, use, and evaluate products and systems to satisfy human and environmental needs.
- **Standard 6: Interconnectedness: Common Themes** – Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.
- **Standard 7: Interdisciplinary Problem Solving** – Students will apply the knowledge and thinking skills of mathematics, science, and technology to address real-life problems and make informed decisions.

English Language Arts

- **Standard 1: Language for Information and Understanding**

Students will listen, speak, read, and write for information and understanding. As listeners and readers, students will collect data, facts, and ideas; discover relationships, concepts, and generalizations; and use knowledge generated from oral, written, and electronically produced texts. As speakers and writers, they will use oral and written language that follows the accepted conventions of the English language to acquire, interpret, apply, and transmit information.

- **Standard 3: Language for Critical Analysis and Evaluation**

Students will listen, speak, read, and write for critical analysis and evaluation. As listeners and readers, students will analyze experiences, ideas, information, and issues presented by others using a variety of established criteria. As speakers and writers, they will use oral and written language that follows the accepted conventions of the English language to present, from a variety of perspectives, their opinions and judgments on experiences, ideas, information and issues.

- **Standard 4: Language for Social Interaction** – Students will listen, speak, read, and write for social interaction. Students will use oral and written language that follows the accepted conventions of the English language for effective social communication with a wide variety of people. As readers and listeners, they will use the social communications of others to enrich their understanding of people and their views.

To view a list of alternative social studies standards for special learners visit:

www.emsc.nysed.gov/ciai/socst/socstands/socstand.html



Activity One: Graveyard Sleuth

Academic Level: Grades 5-8

Time Required: 3-4 hours

Goal: To gather and record historical data from headstones.

To the Teacher: Prior to collecting the data, inquire as to whether there is a database of this information already available from the cemetery. If not, contact your local historical society and invite them to collaborate in collecting this information. Next, schedule a field trip to gather this information. Depending upon the size of the cemetery and your class size, more than one trip may be needed. On average, each pair of students can collect between 15-25 entries per hour.

Helpful Hints: Prior to the trip, use gravestone rubbings or pictures to practice from in class. In particular, review date, month and year data collection (i.e. October is month 10). Divide the cemetery by sections and assign each pair of students a section.

Curriculum Links: This activity would be useful for history, science, and mathematics.

Materials Needed: Data collection sheets (see data collection worksheet), bags of pebbles, clipboards, pens & pencils, gravestone pictures or rubbings (optional).

Procedures:

- Partner students and assign each pair a section of the graveyard to investigate
- Give each pair of students a bag of pebbles to use in indicating gravestone information has been collected
- Begin collecting data (remind students to leave a pebble atop the headstone once they have collected the information)
- Have the students recheck their information and calculate the age of each individual

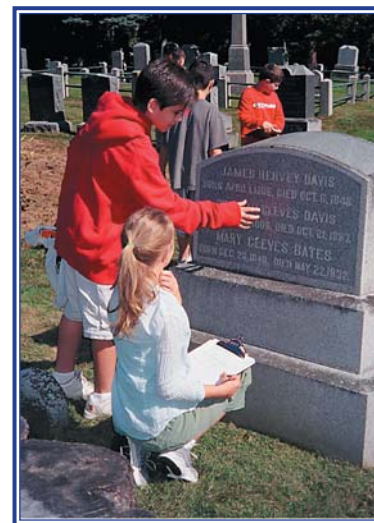
Adaptations for Special Learners:

- Take digital photos of gravestones and allow students to record part or all of the data in class

Extension Activities:

- Using grids, have students create a site map and digital picture catalog of the entire cemetery and make this available to the public via your local historical society or house of worship. Be sure to include an extra column to serve as a reference number for each gravestone
- Publish your information on the Internet
- Have students select a family name from a gravestone to research independently

See accompanying form on next page.



Activity Two: Data Entry & Sort

Academic Level: Grades 5-8

Time Required: 1-2 class periods

Goal: Use technology to record and organize data.

To the Teacher: Have students continue to work in pairs in the data entry to ensure accuracy.

Helpful Hints: It is recommended that you create one spreadsheet for recording data as joining spreadsheets can be difficult. Have students take turns entering their group's information on the spreadsheet. Have each group save the updated version under a new file name (i.e., "spreadsheet data 1," "spreadsheet data 2") as a precaution to avoid losing data. If your school's computer system uses passwords, be sure to save this information to a portable storage device such as a floppy disc for easy retrieval.

Curriculum Links: This activity would be useful for history, technology, and mathematics.

Materials Needed: Computer access to a spreadsheet program such as Microsoft's Excel.

Procedures:

- Create a spreadsheet with the appropriate categories
- Enter data on spreadsheet. Be sure to have students check off each entry as it is stored to avoid entering data incorrectly
- Using the program's options, organize the data in columns in ascending order and print at least one copy of each. For instance, names in alphabetical order, year of death in numerical order, etc. To do this, highlight only the information in the column you wish to correlate, then use the "Sort Ascending" option. (See examples below.) This will correlate all of the information in your spreadsheet accordingly
- Using the "Save As" option, save each sort by category. For instance: Last Name, Death Year, etc. Each of these documents will be utilized by students in generating patterns

Adaptations for Special Learners:

- Allow students to perform as much of the data entry as they are capable of completing. Have student partners or classroom aids modify these tasks

Extension Activities:

- If completing the extension activity from **Activity 1**, be sure to include an extra column in your spreadsheet for reference numbers of each gravestone

See accompanying spreadsheet sample on next page.

- * Don't forget to have each pair of students save their updated data entry to a new file name as an extra precaution.



Activity Two: Data Entry & Sort

Sample Data Entry (no alteration)

ID#	Last	First	M/F	Birth Month	Birth Year	Death Month	Death Year	Age
1203	Berns	Diana	2	11	1800	9	1865	64
1234	Volare	Jack	1	5	1876	5	1901	15
1251	Frank	Karen	2	9	1899	7	1923	23
1167	Wilson	Paul	1	10	1882	7	1945	62
1234	Smith	William	1	2	1765	8	1811	46

To sort, on your spreadsheet highlight the column you want to sort and select the “sort ascend” option. Your information will then reappear configured as below. Don’t forget to save this new copy by choosing “Save As” and storing it under a new file name such as “Graveyard Info Last Name.”

Sample Data Entry (sorted by Last Name)

ID#	Last	First	M/F	Birth Month	Birth Year	Death Month	Death Year	Age
1203	Berns	Diana	2	11	1800	9	1865	64
1988	Frank	Karen	2	9	1899	7	1923	24
1234	Smith	William	1	2	1765	8	1811	46
1234	Volare	Jack	1	5	1876	5	1901	15
1167	Wilson	Paul	1	10	1982	7	1945	63

Here is how the information will look when sorted by the “death year.”

Sample Data Entry (sorted by Death Year)

ID#	Last	First	M/F	Birth Month	Birth Year	Death Month	Death Year	Age
1234	Smith	William	1	2	1765	8	1811	46
1203	Berns	Diana	2	11	1800	9	1865	64
1239	Volare	Jack	1	5	1876	5	1901	15
1251	Frank	Karen	2	9	1899	7	1923	23
1167	Wilson	Paul	1	10	1982	7	1945	62

Activity Three: Correlate Data & Graph

Academic Level: Grades 5-8

Time Required: 2-3 class periods

Goal: To examine and interpret data.

To the Teacher: To accomplish this activity it is helpful to discuss events in history that may be represented by trends. This will help the students decide how they will approach their data inquiry. Not all data will display a trend; in this case, ask students to re-analyze their data in a different way.

Helpful Hints: Have students work in small groups with one category (i.e., death year). Prior to this investigation offer suggestions on the different ways they can separate their results. For instance, when working with death year it may be helpful to have students create two data sets – one before 1940 and one after 1940 – to study the influence of antibiotics on longevity. Discuss other significant events in world history such as the influenza pandemic of 1918, world wars, or natural disasters reflected in your local community.

Curriculum Links: This activity would be useful for history, science, language arts, and mathematics.

Materials Needed: Calculators, pencils and pens, graph paper.

Procedures:

- Determine which events in history to consider as you analyze your data. This will help determine how you will examine and organize your findings. For instance, should students group “death months” by seasons or leave them as individual months? Should all of your data be separated into two groups (before and after 1940) to understand how antibiotics impacted society?
- Put students together in groups to begin analyzing the data sheets created on the spreadsheet program. Each group should analyze one specific topic (i.e., death year, death month, etc.)
- Have students create rough drafts of analyzed data and graphs
- Have students create computer-generated graphs

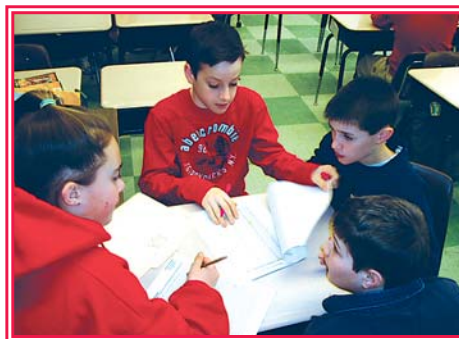
Adaptations for Special Learners:

- Work in groups or with the assistance of an aid

Extension Activities:

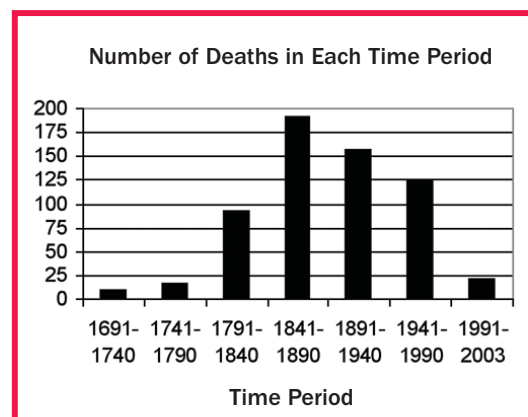
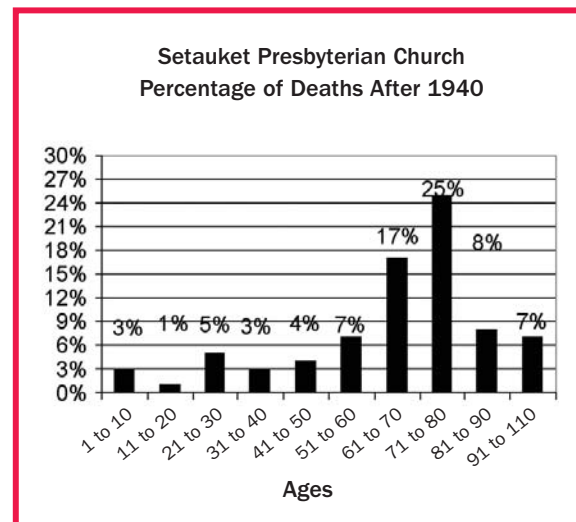
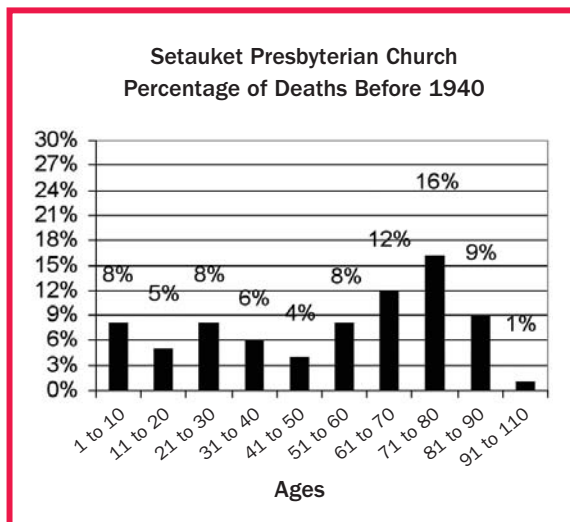
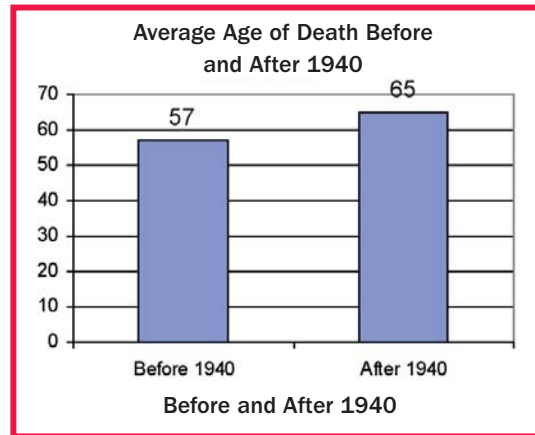
- Have students create a family genealogy of the data they have recorded

See accompanying sample graphs on next page.



Activity Three: Correlate Data & Graph

Sample Charts



Activity Four: Interpreting Data

Required Time: 2-4 class periods (to optimize instruction, the reading portion may be assigned as homework)

Academic Level: Grades 5-8

Goal: To analyze data and connect findings to historical texts and past events in history.

To the Teacher: Once the students have analyzed the data, they should begin to hypothesize, theorize, and connect results with past events.

Helpful Hints: Not every pattern in data will be explainable. Pre-read texts to help students locate sources that may offer connections to their data. For younger students you may suggest specific paragraphs, while more advanced students can navigate this information independently. Have each group share their hypothesis with other groups and create a list for the class. Suggest that as students read they locate information helpful to all the groups' investigations – not just their own.

Curriculum Links: This activity would be useful for history, science, mathematics, and language arts.

Materials Needed: Historical texts, access to the Internet.

Procedures:

- Ask students to pretend they are in the year 2300 investigating cemeteries in their local community. Ask them to suggest events from their actual lifetimes that may be uncovered by studying graveyards and connecting deaths with textbooks about history. For instance, the pandemic of AIDS in the late 20th century may correlate to a spike in deaths in their community. Perhaps a natural disaster such as a hurricane or man-made disaster may be demonstrated by a larger than average percent of deaths in a given year. Once the students have made these connections, ask them to consider what historical events may have occurred that are represented in the data they have collected from the past
- Have the students create a list of trends uncovered through their data analysis and create a master list to share with peers
- Begin researching past historical events in explaining these trends
- Share and record any useful explanations (be sure to have students cite their resources as they gather information – these sources will be used in creating the final product)



Adaptations for Special Learners:

- Assist these students in locating useful passages. Locate books that are written at appropriate reading levels for special learners

Extension Activities:

- Invite your local historical society to join in the process of explaining trends in your data
- Compare and contrast older data with current day statistics

Activity Five: Creating Data-Based Questions

Required Time: 2-3 class periods

Academic Level: Grades 5-8

Goal: To display research results using student-created, data-based documents.

To the Teacher: Creating data-based documents is just one way to share results. Other suggestions include creating a website or PowerPoint presentation.

Helpful Hints: Model several examples for students. If your students will be creating curriculum for younger students to utilize, remind them to consider age-appropriate vocabulary when creating questions.

Curriculum Links: This activity would be useful for history, science, mathematics, and language arts.

Materials Needed: Computer access.

Procedures:

- Have students join historical passages with accompanying graphs. Remind students that it is important to cite the sources they used
- Have the students create questions that correspond to this information
- Have each group create a finished product (see examples below)

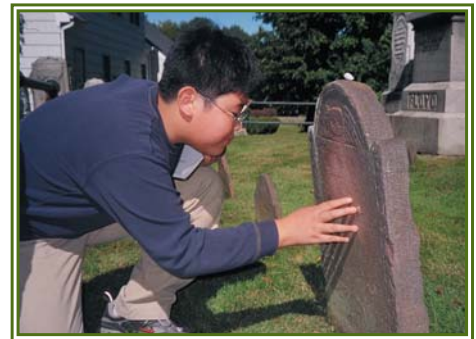
Adaptations for Special Learners:

- Supply students with examples of finished products as a guide

Extension Activities:

- Create packets of the data-based questions for younger students in your district to use in studying local history

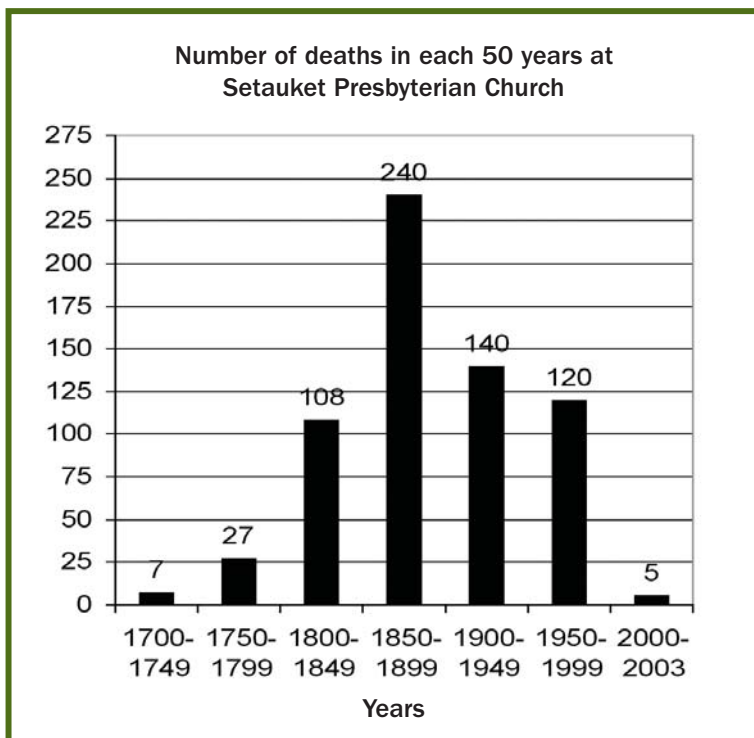
See accompanying data-based question sample on next page.



Activity Five: Creating Data-Based Questions

Example 1

Setauket Presbyterian Church
Data-Based Questions - Group 3 Sheet 1



1. According to the data how many people died from 1700-1749? _____

Read the following passage before answering question 2.

Setauket became a garrison town. The British converted the Presbyterian Church into a fort, and stationed more than two hundred and fifty troops there. Many of these were quartered in private homes in the village. The Redcoats were probably Queens County militia, commanded by Colonel Richard Hewlett. The fort mounted four swivel guns, and breastworks (a wall thrown together to defend in battle) were raised, partly constructed with stones (gravestones) from the church cemetery.

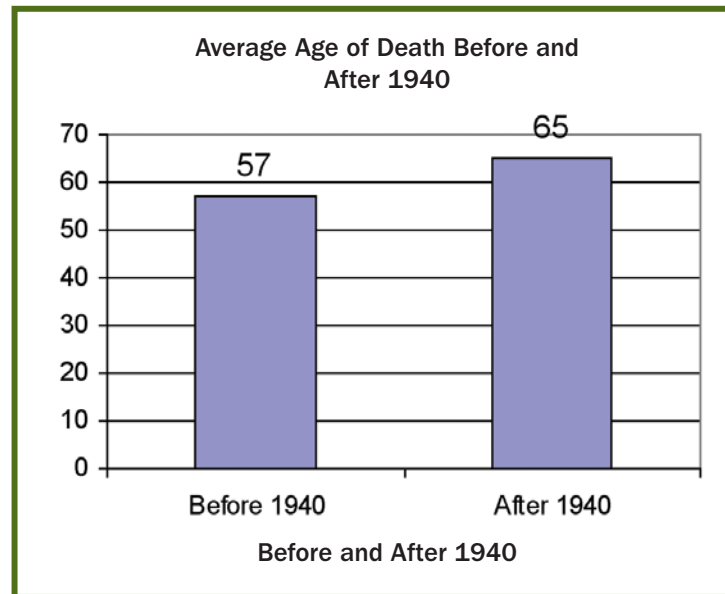
(Excerpt taken from *Setauket: The First Three Hundred Years* by Edwin P. Adkins)

2. After reading the passage, why do you think there were only seven gravestones counted from 1700-1749?

Activity Five: Creating Data-Based Questions

Example 2

Setauket Presbyterian Church
Data-Based Questions - Group 3 Sheet 2



1. By how many years did the average age increase after 1940? _____

Read the following passage before answering the following question:

Definition: Antibiotics are a medicine or chemical that can destroy harmful bacteria in the body or limit their growth. They are useful for fighting infections caused by lacerations or disease.

Scientists began working to develop drugs that could destroy pathogenic microbes, but the substances they produced proved either dangerous or ineffective. A historical breakthrough came in 1928, when they started to make antibiotics. They finished making them and testing them. By 1940 they started to sell them.

(Excerpt taken from *World Book 2002 A1* by Mary Alice Anderson - simplified)

2. Why do you think the average age of people increased after 1940?

Activity Six: Presentation

Required Time: 1-2 class periods

Academic Level: Grades 5-8

Goal: To share historical conclusions with others.

To the Teacher: Invite members of the community to your presentation. Use one class period to rehearse your presentation. Perhaps you can invite another class to serve as your practice audience.

Helpful Hints: Create handouts of your findings to accompany whatever presentation you have decided upon. Creating poster-sized reproductions of the data-based questions or incorporating these files in a PowerPoint display will add to your presentation.

Curriculum Links: This activity would be useful for history, science, mathematics, and language arts.

Materials Needed: Copies of students' final product, computer access (optional), and poster maker (optional).

Procedures:

- Have each group prepare a presentation station or PowerPoint slide to explain their findings

Adaptations for Special Learners:

- Select a specific part of the presentation for students to focus on. If public speaking is difficult, have these students help in *creating* the presentation

Extension Activities:

- Create a video of student presentations

See accompanying pictures to the right.

