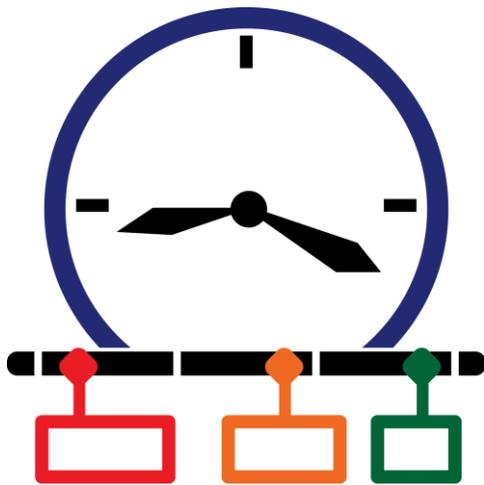# TECHNO Timeline
Teacher Guide

Lessons for Middle & High School Students: Grades 6 - 9

Technology Project using

Google Slides

Explain significance of events.

In this project, students create a timeline that summarizes significant events. The graphic organizer will consist of information organized in chronological order. Each event will be analyzed to gain an understanding of its historical importance on people and future events.

To start, students study sample timelines for inspiration. Next, they research a topic and record findings using an organizer. Once the important moments have been pinpointed, Google Slides is used to create a graphic display. Upon completion, the sequence of events is shared with others.

TECHNOKids

Table of Contents

TechnoTimeline Overview

Purpose: Create a timeline that forms connections between people and events.

Objectives: *(see Appendix A: Skill Summary)*

- understand the purpose of a timeline
- research important historical events
- analyze relative importance of key events
- organize events using a timeline
- explain the significance of events
- customize slide size and layout
- format slide background
- insert and format word art
- draw shapes and text boxes
- format fill and border of slide objects
- scale, move, align, and group slide objects
- copy and paste slide objects
- join shapes using connectors
- critically review a timeline to offer feedback
- post and read comments

Preparation: *(see Preparing to Teach)*

- Sign up for a Google Account
- Install Adobe Reader or another PDF app
- Share Timeline folder with students
- Download and print Flashcards and Tool Summary from [TechnoHub](#) (optional)

Materials: (see *Appendix B:* for a complete list)

- Sample Timelines:
  Biography, Expedition, Milestones
- Research Organizer Template (optional)
- Workbook Files
- Parent Letter and Certificate (optional)
- Timeline Checklist
- Timeline Marking Sheet
- Timeline Skill Summary
- Flashcards and Tool Summary (optional)

Summary of Activities:

- Gain an understanding of the purpose of a timeline. View samples.
- Review a list of timeline types. Select a topic.
- Research an important person or event in history. Summarize findings in an organizer.
- Use Google Slides to create a Timeline bar using shapes.
- Use Google Slides to add text boxes describing events. Join the events to the timeline.
- Review a timeline using a checklist. Make revisions.
- Peer edit a timeline and offer helpful comments.
- Share timeline as a presentation, link, or printed document.

Extension Activities:

- Consider what makes an event significant.
- Use Google Docs Explore feature to gather data.
- Develop graphic skills in a Drawing Workshop.

Assessment:

- Self-Evaluation (Timeline Checklist – Assignment 6)
- Peer-Evaluation (Timeline Checklist and commenting activity – Assignment 7)
- Teacher Evaluation (Timeline Marking Sheet, Timeline Skill Summary)

Notes:

- If you are a classroom teacher have students build a timeline about a topic they are studying.
- If you are a computer teacher have students build a timeline about themselves, family, person they admire, or topic of personal interest.

Technology Integration Ideas

TechnoTimeline integrates into curriculum. This project can be used to identify significant events, develop an understanding of a historical period, study changes over time, or analyze causal relationships. Students can create a timeline on a wide range of topics. You may wish to include project activities as part of a history, social studies, or language arts unit. Below are some suggestions:

- *Autobiography Timeline:* Tell about yourself. What makes you special? Share milestones or achievements in your life. Explain why each event is important to who you are today. This timeline will span from birth to present day.

- *Family Timeline:* Record special memories. When did family members marry, have a baby, move, go to college, or get a job? Describe how this influences you today.

- *Biography Timeline*: Select a significant historical figure such as a politician, explorer, scientist, or humanitarian. What decisions or accomplishments were influential? Form connections between people and events. This timeline will span a lifetime.

- *Historical Period Timeline:* Select a historical period such as the age of imperialism, ancient civilizations, renaissance, or middle ages. What critical developments shaped the future? This timeline may span several decades or centuries.

- *Historical Event Timeline:* Select a historical event such as a war, revolution, or expedition. What challenges were overcome to produce a particular result? Pinpoint important events. This timeline may span several years or decades.

- *Historical Topic Timeline:* Select a topic such as flight, country, or scientific advances. What stands out as being important? Outline critical moments from the beginning to today to show changes over time. This timeline may span years, decades, or centuries.

- *Historical Moment Timeline:* Select a significant moment or situation such as an invention, discovery, human rights issue, vote, or disaster. What led up to it? Analyze the cause and consequences of each event. This timeline may span several years or just one day.

- *Plot Summary Timeline:* Select a novel. What happened? Sequence the story events. This timeline will span from the beginning to the end of the book.

Understand the Big Picture

Not sure where to integrate TechnoTimeline? There are three samples provided for this project. These samples provide ideas on how you can include these activities into curriculum.

- ✓ Biography - Alexander Graham Bell's contribution to technology

- ✓ Expedition – the challenges overcome by **Sir Ernest Shackleton's** crew during the Imperial Trans-Antarctic Expedition

- ✓ Milestones – significant events in the era of manned flight that show changes over time

Assignment 1 What Is a Timeline?

In this project, you are going to organize a series of important events into a timeline using Google Slides.

To prepare for this activity, study sample timelines to gain ideas about how you can creatively sequence significant moments.
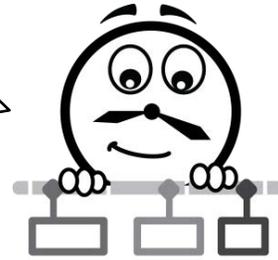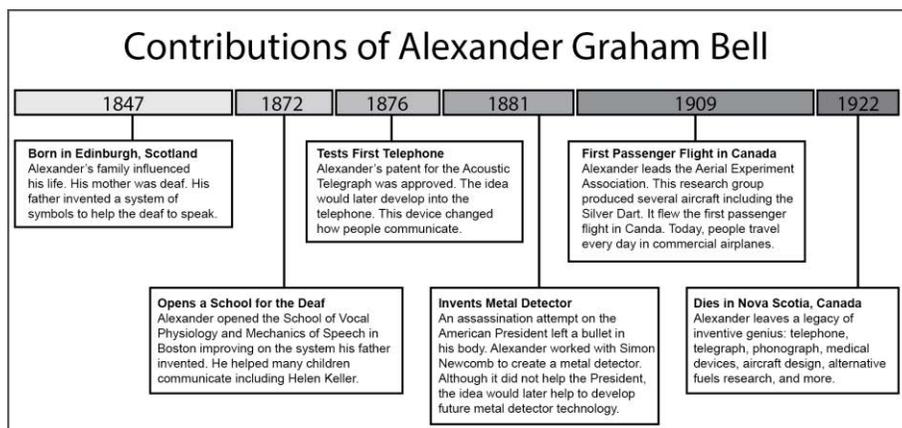
What Is a Timeline?

A timeline is a summary of events that happened in history. These events are sequenced in the order they occurred. Events are arranged chronologically along a line from earliest to latest. The passage of time illustrated may be a day, year, decade, or century. The timeline may include text, pictures, or both.

The line is shown as a long bar labelled with dates. Along the line are points in time that mark an important event. These are placed proportionally along the line to show the passage of time using a linear scale. The distance along the line equals a set amount of time.

Events marked along the timeline are *significant*. This means that they are worthy of attention. They may mark a milestone, outline an achievement or accomplishment, hold special meaning, or have influenced history.

Contributions of Alexander Graham Bell

| 1847 | 1872 | 1876 | 1881 | 1909 | 1922 |

Born in Edinburgh, Scotland
Alexander's family influenced his life. His mother was deaf. His father invented a system of symbols to help the deaf to speak.

Tests First Telephone
Alexander's patent for the Acoustic Telegraph was approved. The idea would later develop into the telephone. This device changed how people communicate.

First Passenger Flight in Canada
Alexander leads the Aerial Experiment Association. This research group produced several aircraft including the Silver Dart. It flew the first passenger flight in Canda. Today, people travel every day in commercial airplanes.

Opens a School for the Deaf
Alexander opened the School of Vocal Physiology and Mechanics of Speech in Boston improving on the system his father invented. He helped many children communicate including Helen Keller.

Invents Metal Detector
An assassination attempt on the American President left a bullet in his body. Alexander worked with Simon Newcomb to create a metal detector. Although it did not help the President, the idea would later help to develop future metal detector technology.

Dies in Nova Scotia, Canada
Alexander leaves a legacy of inventive genius: telephone, telegraph, phonograph, medical devices, aircraft design, alternative fuels research, and more.

Why Use a Timeline?

A timeline can be used to:

- highlight important achievements or milestones in a person's lifetime
- form connections between people and future events
- develop an understanding of a historical period
- study changes over time
- analyze the cause and consequences of events

Study Timelines

▷ Open the *Timeline* folder.

▷ View each sample and answer the questions.

Get ideas for making your own timeline. What designs do you like?
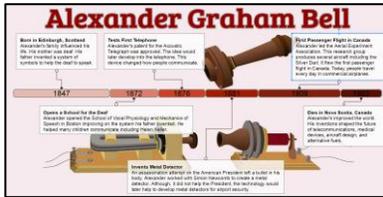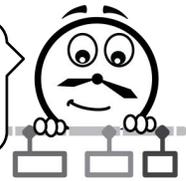
Biography

1. Why was the year 1876 chosen as an important event?

The telephone changed how people communicate.

2. Why was the fact about Bell's father included?

Bell's father helped the deaf, sparking his son's interest in helping and teaching deaf people.

Expedition

3. Why are the shapes representing 1915 and 1916 shorter than 1914 and 1917?

There are 3 important events in each year 1915 and 1916. They show a shorter time period.

4. Why are the months included as well as the years?

There is more than one event in the year. The month is needed to show when the event happened.

Milestones

5. Why was this timeline made over two slides?

There are a large number of important events in the topic.

6. What do you think the next milestone in flight in the future will be?

7. What are the benefits to using a timeline to learn about a topic?

Assignment 5 List Events and Connect to the Timeline

In this assignment, you use your research from Assignment 3 to add events and connect them to the timeline. For each event describe what happened and why it is important. You will:

✓ describe an important event using a text box

✓ copy and paste the text box and edit the information

✓ connect each event box to the timeline using a connector line
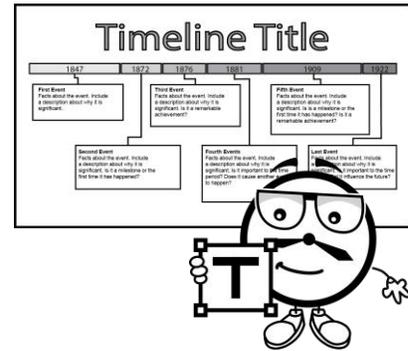
## Log Into Google Drive and Open the Timeline Presentation

Add an Event Text Box

▷ Click *Text box*. 🔲

▷ Click and drag to draw a text box on the slide.

▷ Type the *event description* into the text box.

▷ Format the font ⌷Arial ▾⌷, size ⌷– 54 +⌷, and style ⌷B⌷ of the text.

> Name of event. Describe the significance. Is it a milestone or the first time it has happened? Is it a remarkable achievement? Is it important to this time period? Does it cause another event to happen?

▷ Use your skills to format the shape fill 🔲, border color 🔲, and border weight. 🔲

> TechnoChallenge: Create a see-through effect to show the background behind a text box. Click *Fill color*. Select *Custom*. Drag the transparency slider to the LEFT to increase transparency. Click *OK*.
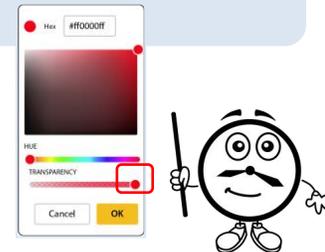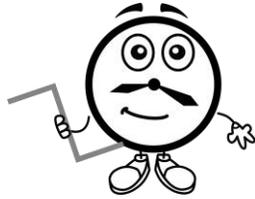
Copy Text Box and Paste It to Add Remaining Events

▷ Click on the text box to select it.

▷ From the Edit menu, choose *Copy*. 🗐

▷ From the Edit menu, choose *Paste*. 📋

▷ Replace the event description with the *second event*.

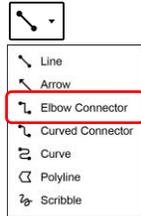▷ Use your skills to add remaining events.
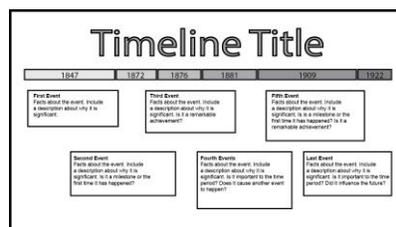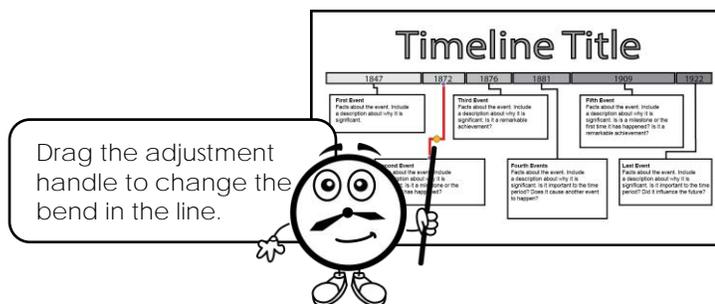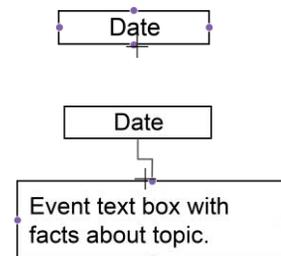
Draw Connectors to Join Each Event to a Date

You need to join each event to the correct date. You will use an Elbow Connector to join a shape to a text box.

▷ Click the *Select* line arrow. Pick *Elbow Connector*.

↖ Line
↖ Arrow
⌐ Elbow Connector
⌐ Curved Connector
≈ Curve
⟨ Polyline
⅍ Scribble

▷ Connect the date to the event:

   o   Rest the crosshair over the first date on the timeline.

   o   Click on the center handle to anchor the line to the date.

   o   Click and drag the connector to the corresponding text box. Click on a handle to anchor the line to the event.

▷ Use your skills to connect the other dates to events.

Date

Date

Event text box with facts about topic.

Timeline Title

| 1847 | 1872 | 1876 | 1881 | 1909 | 1922 |

First Event
Facts about the event. Include a description about why it is significant.

Third Event
Facts about the event. Include a description about why it is significant. Is it a remarkable achievement?

Fifth Event
Facts about the event. Include a description about why it is significant. Is a milestone or the first time it has happened? Is it a remarkable achievement?

Second Event
Facts about the event. Include a description about why it is significant. Is it a milestone or the first time it has happened?

Fourth Event
Facts about the event. Include a description about why it is significant. Is it important to the time period? Does it cause another event to happen?

Last Event
Facts about the event. Include a description about why it is significant. Is it important to the time period? Did it influence the future?

Drag the adjustment handle to change the bend in the line.

Format the Connectors

▷ Select a connector.

▷ Use your skills to format the *Line color* ◢ and *Line weight*. ☰

▷ Click *Line start*. ▭ Choose an option.

▷ Click *Line end*. ▭ Choose an option.
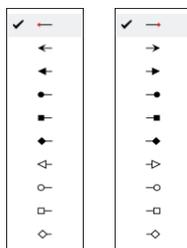
TechnoChallenge: Copy the formatting from one connector to another. Select a connector you like. Double click *Paint format*. 🖌 Click every other connector to make them all look the same. Click *Paint format* again to turn it off.

Log Out from Google Drive

    12   TechnoTimeline | Google Workspace

Assignment 6 Use a Checklist to Edit the Timeline

Is the timeline finished?
Use the checklist to review the work.

Timeline Checklist	No	Yes
Background color or picture suits the topic.		
Title is created in Word art and has been formatted to be eye-catching.		
Timeline bar is labelled with dates and looks attractive.		
The size of each shape in the timeline bar varies to show the amount of time.		
There are a suitable number of timeline events.		
Events describe important facts about the topic.		
Event text boxes are formatted to look attractive and text is easy to read.		
Connector lines link events to the correct dates in the timeline.		
Spelling and grammar are correct.		
All timeline objects have been arranged to create a balanced layout.		

If you have time, add images to the timeline. Instructions are on the next page.
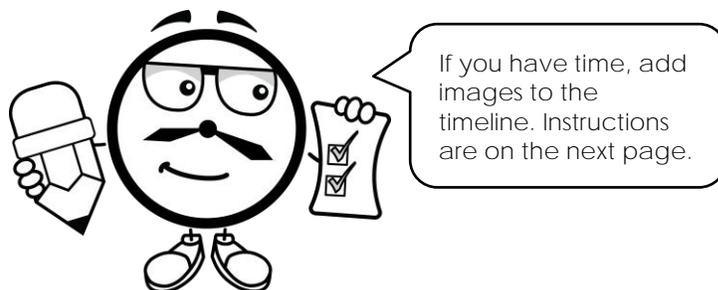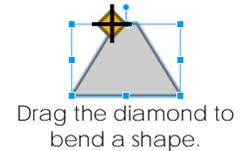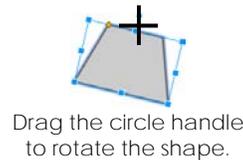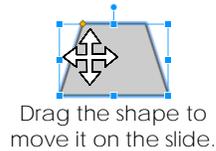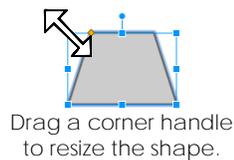
Extension Activity 3: Drawing Workshop

If you are new to Google Workspace, you may want to explore the drawing tools before you begin to make a timeline. Knowing what you can create and how to make it will help you to design a unique timeline that is clear and easy for viewers to understand.

1. Log into Google Drive. *Click* New and select Google Slides.

2. Click *Layout* [Layout▾] and choose *Blank.*

3. Draw a shape:

   a. Click *Shape.* 🗔
   Pick a category and choose a shape.

Shapes	►
⇨ Arrows	►
▭ Callouts	►
✛ Equation	►
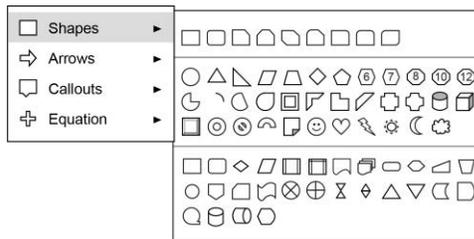
   b. Click and drag to draw a shape on the slide.

4. Explore how to size, move, rotate, and distort the shape:

   Drag a corner handle to resize the shape.

   Drag the shape to move it on the slide.

   Drag the circle handle to rotate the shape.

   Drag the diamond to bend a shape.

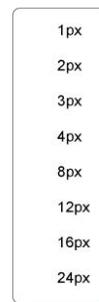   *Note: Not all shapes can be distorted.*

5. Select the shape. Explore formatting tools to change the way the shape looks:

   Click *Fill color.* ♦
   Pick a color from the palette.

   Click *Border color.* ✏
   Pick a color from the palette.

   Click *Border weight.* ≡
   Pick a width from the list.

   Click *Border dash.* ⋮⋮⋮
   Pick a style from the list.

   You can change the shape but keep the formatting.

   Right click on the shape and pick *Change shape.* 🗔 Pick a new shape from the gallery.

6. Add text to a shape:

    a. Right click on the shape and select *Edit text.* 🅰

    b. Type the *year you were born*.

    c. Click and drag to select the text.
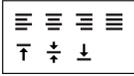
    d. Explore the tools to change the look of the text:
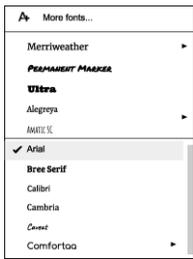
Click *Font*. Arial Pick a typeface.	Click *Font size*. − 54 + Pick an option, type a number into the box, click - to make the text smaller, or click + to make the text bigger	Click *Text color*. **A** Pick a color from the palette.	Click *Align*. Pick an alignmnent option.

7. Arrange objects:

    a. Right click the shape and select *Copy.* ⧉

    b. Click anywhere on the slide, right click, and select *Paste.* 📋

    c. Paste the object again to make three shapes. Edit the text in each shape.

    d. Drag the objects until red guidelines appear to align the shapes.

        2004   2009   2015

Note: If the guidelines do not appear, from the View menu select Snap to – Guides.

8. Distribute the shapes evenly and group objects:

    a. Click and drag around the shapes to select them all.

        2004   2009   2015

    b. From the Arrange menu, click *Distribute*. Select *Horizontally*. ▮▮▮

    c. With all the shapes selected, from the Arrange menu, select *Group*.

    d. From the Arrange menu, click *Center on page*. Select *Horizontally*.

    > Have fun with shapes!
    >
    > Can you draw a red heart with the word LOVE inside?
    >
    > Can you draw a yellow arrow with a blue outline?
    >
    > Can you draw a callout bubble?

Appendix A: Assessment Tools

Timeline Marking Sheet

Background color or picture suits the topic.	/1
Title is created in Word Art and has been formatted to be eye-catching.	/1
Timeline bar is labelled with dates and looks attractive.	/2
The size of each shape in the timeline bar varies to show the amount of time.	/2
There are a suitable number of timeline events.	/2
Events describe important facts about the topic.	/10
Event text boxes are formatted to look attractive and text is easy to read.	/3
Connector lines link events to the correct dates in the timeline.	/1
Spelling and grammar are correct.	/1
All timeline objects have been arranged to create a balanced layout.	/2

/25