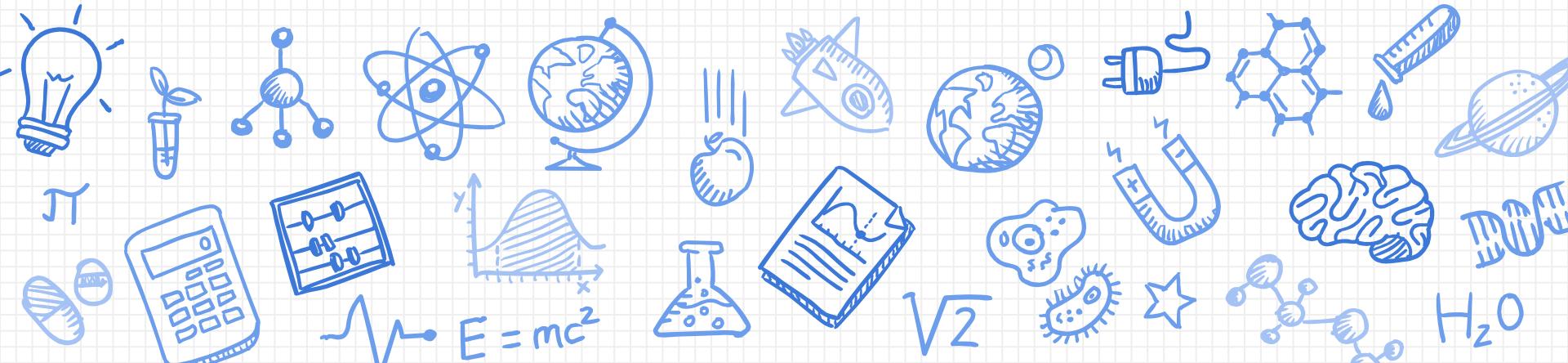
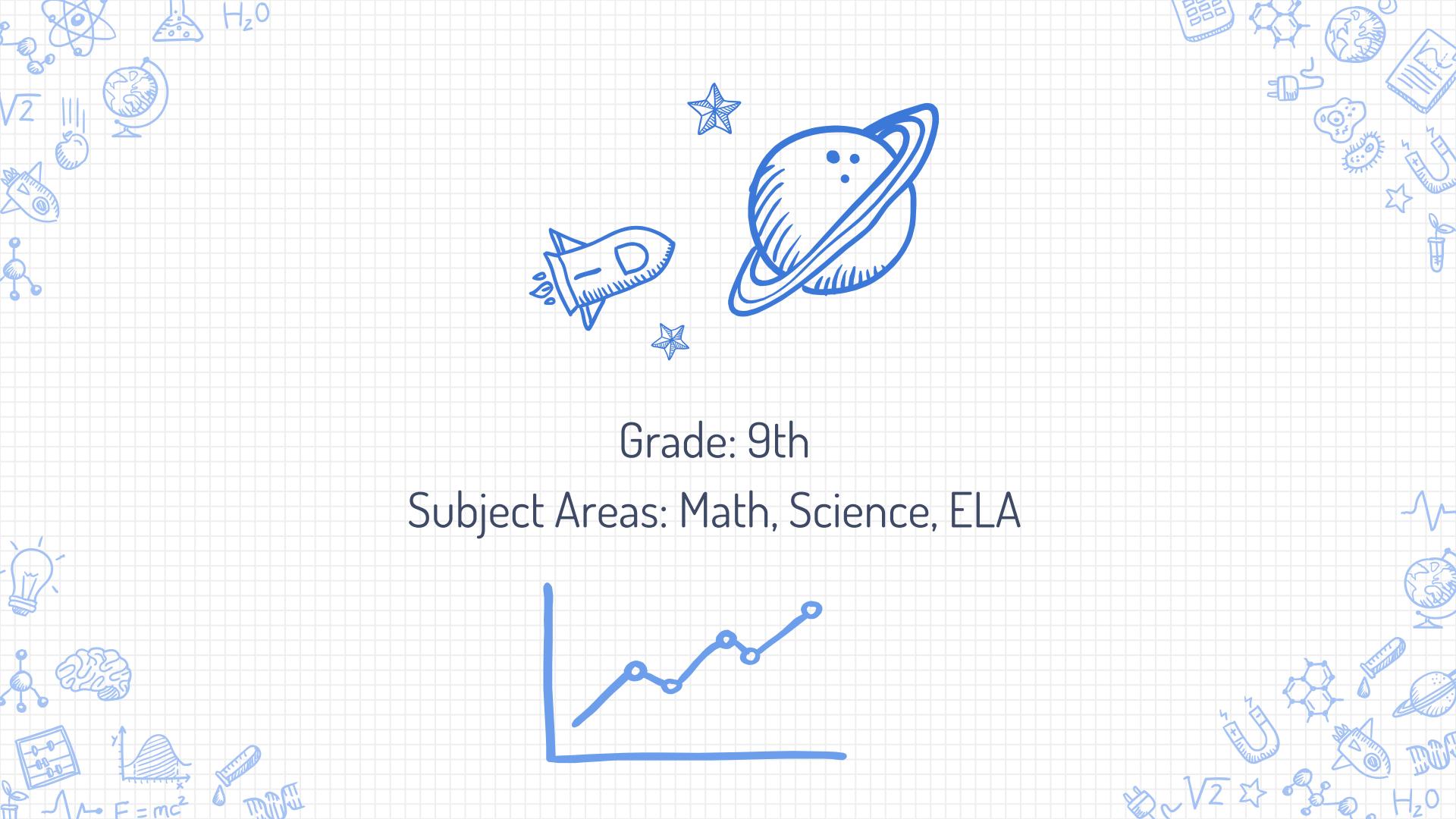


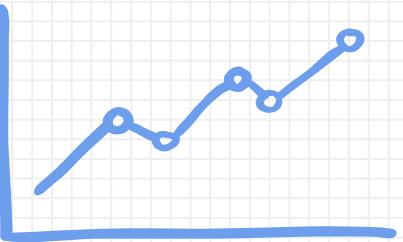
Interpreting a Narrative to Create a Line Graph

Group Two: Sarah Banning, Amanda Benson,
Bevan Brunelle, and Mike Reagan



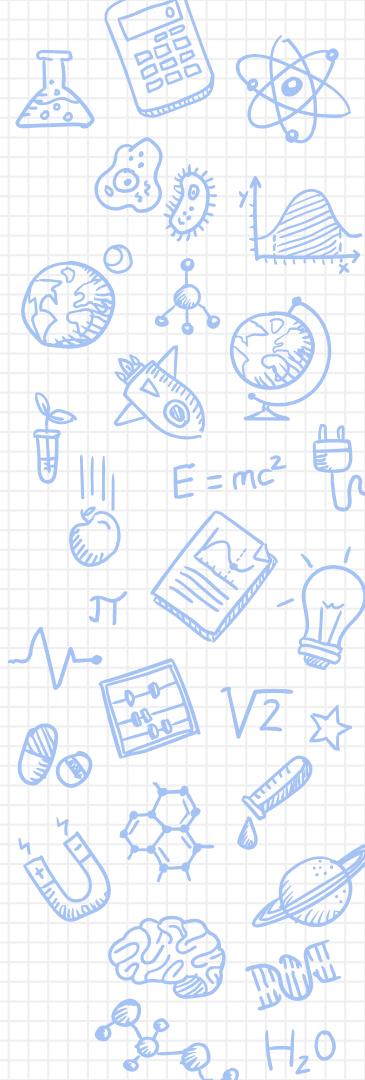


Grade: 9th
Subject Areas: Math, Science, ELA



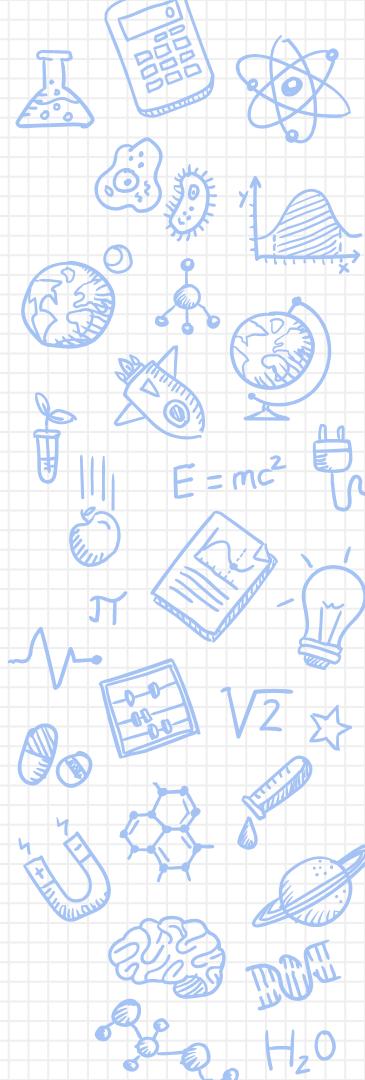
Standards

- ✗ Common Core
 - ✗ CCS: 9-10.W.9 (ELA): Draw evidence from literary or informational texts to support analysis, reflection, and research.
 - ✗ CCS: F-IF.4 (Math): For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.
- ✗ Next Generation Science Standards
 - ✗ NGSS: MS-L.S2-1 (Science): Analyze and interpret data to provide evidence for the effects of resource availability on organism and populations of organisms in an ecosystem.



Technology Standards

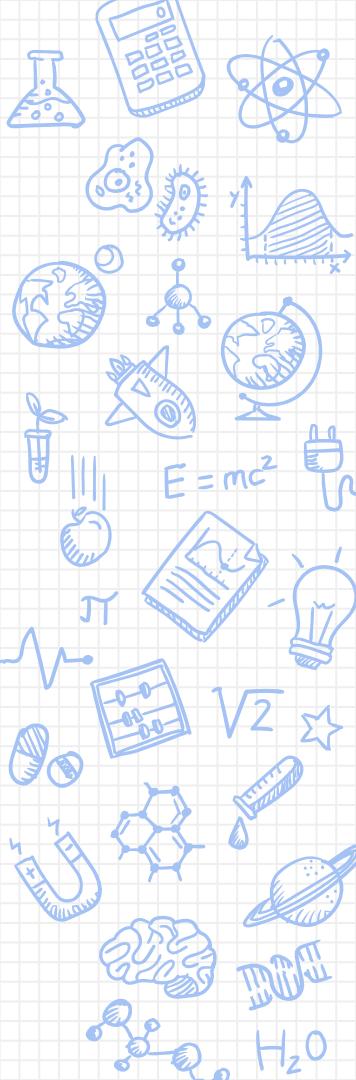
- ISTE
 - 1c. Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.
 - 3d. Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.
 - 5b. Students 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.
 - Massachusetts Technology Standards
 - G9-12: 3.9: Plan and implement a collaborative project with students in other classrooms and schools using telecommunications tools (e.g., e-mail, discussion forums, groupware, interactive Websites, video conferencing).



Learning Targets & Assessment Method

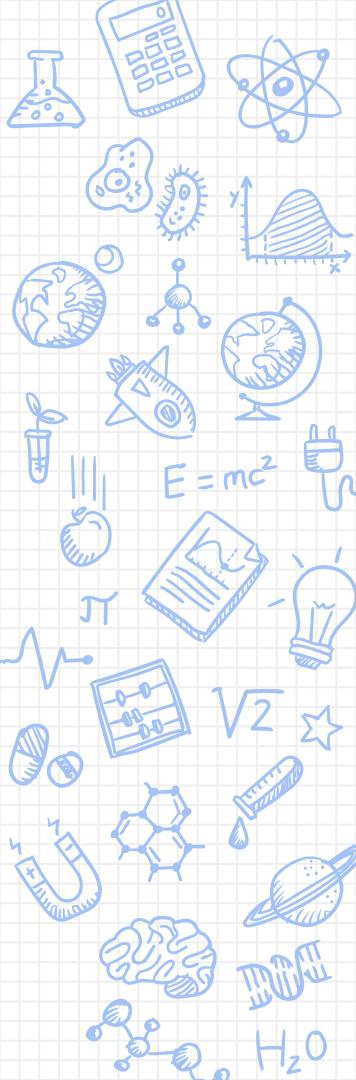
I will be able to identify and annotate key information from a narrative, and use it to plot coordinates and create a labeled graph.

- ✗ Formative:
 - ✗ Students will match three narratives to three graphs to show an understanding of basic graph interpretation.
 - ✗ Students will analyze a narrative and draw a graph based on the information they found in the narrative.
- ✗ Summative:
 - ✗ Exit Ticket: Analyze a graph & answer a question via PollEverywhere



Agenda

- X Do Now
 - X Mini-Lesson
 - X Annotation
 - X Table
 - X Graphing
 - X Group Graphing
 - X Exit Ticket: PollEverywhere
 - X Objective Understanding Eval
 - X Debrief

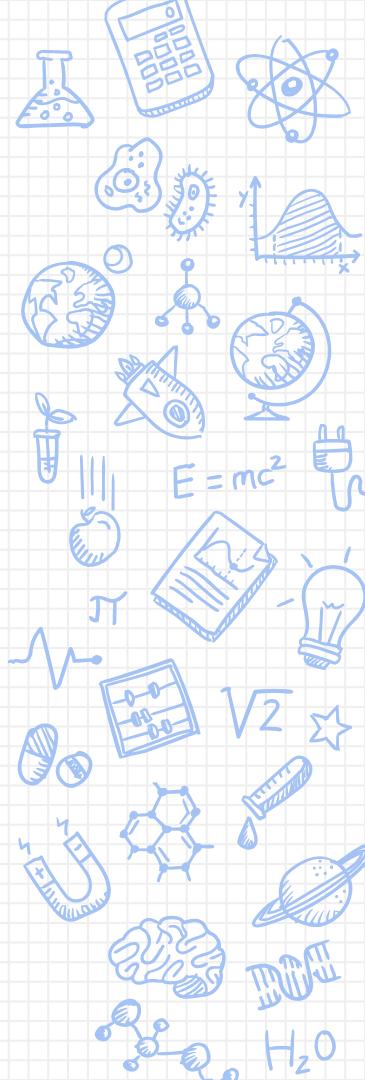


Do Now Instructions

1. Open envelope
 2. Inside are three graphs and two narratives
 3. Match the narratives with the two of the graphs
- X** 3 Minutes to complete

Then....

1. Turn & Talk with a partner
 2. Discuss your matching choices
- X** 2 minutes, 1 minute for each person

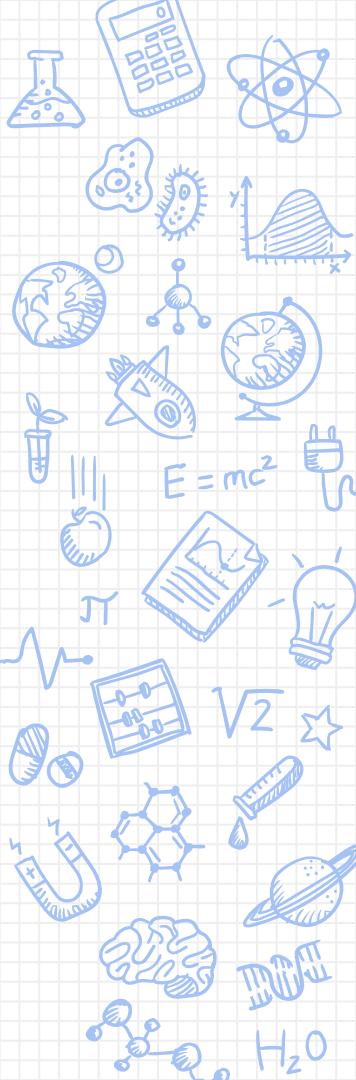


Narrative

By 1905, the Bald Eagle population disappeared completely in the Swift River Valley due to deforestation to make way for farmland and industry.

In 1982, the Massachusetts Division of Fisheries and Wildlife teamed with Mass Audubon Society to launch a project to reintroduce the bald eagle as a breeding bird in the Swift River Valley. The following paragraph details the results of seasonal population surveys, conducted after the birds were reintroduced.

In 1986, forty-two eagle chicks were brought from Manitoba, Nova Scotia, and Michigan, to be raised and released near the Quabbin Reservoir. Two years later, the population had decreased by six. By 1990, the mid-winter survey states that the eagle population increased by one. Two years later, the population dropped by four, then increased by fifteen in 1994. In 1996, the survey shows that there was a large decrease discovered in the count, with a total of thirty-two bald eagles counted. Two years later, the number of birds increased to forty-one, but by 2000, the population dropped to twenty-seven. The data for 2002, shows a slight increase of three birds and by 2004, the number of eagles had grown to thirty-nine.



Annotation

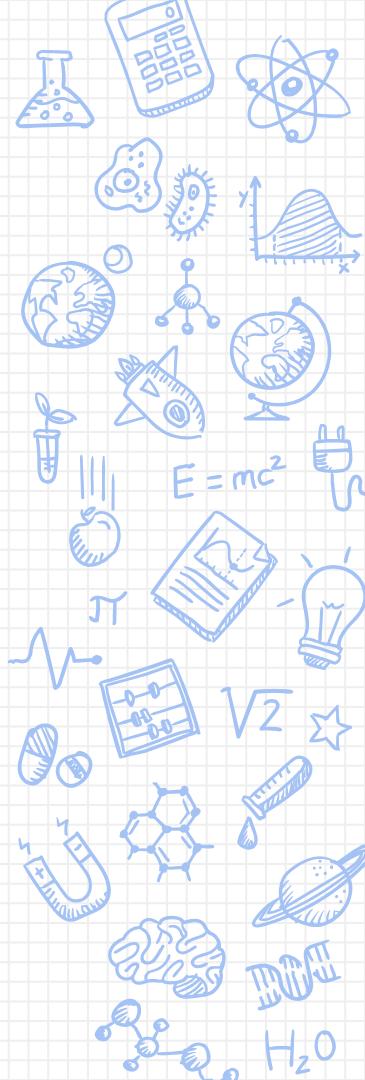
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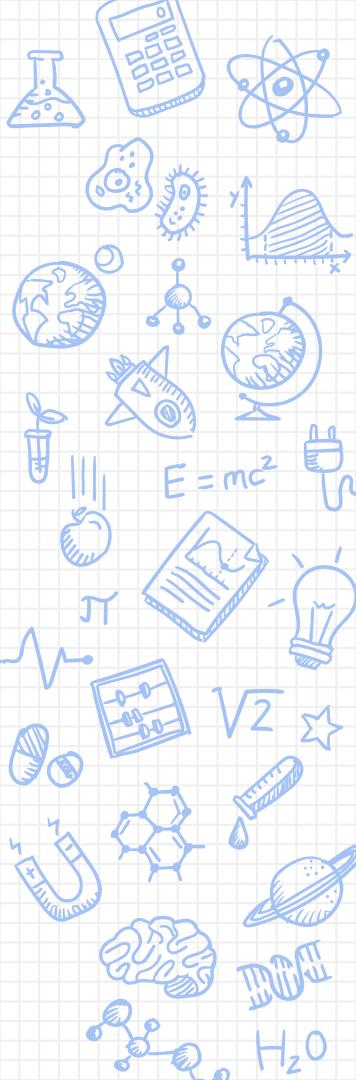
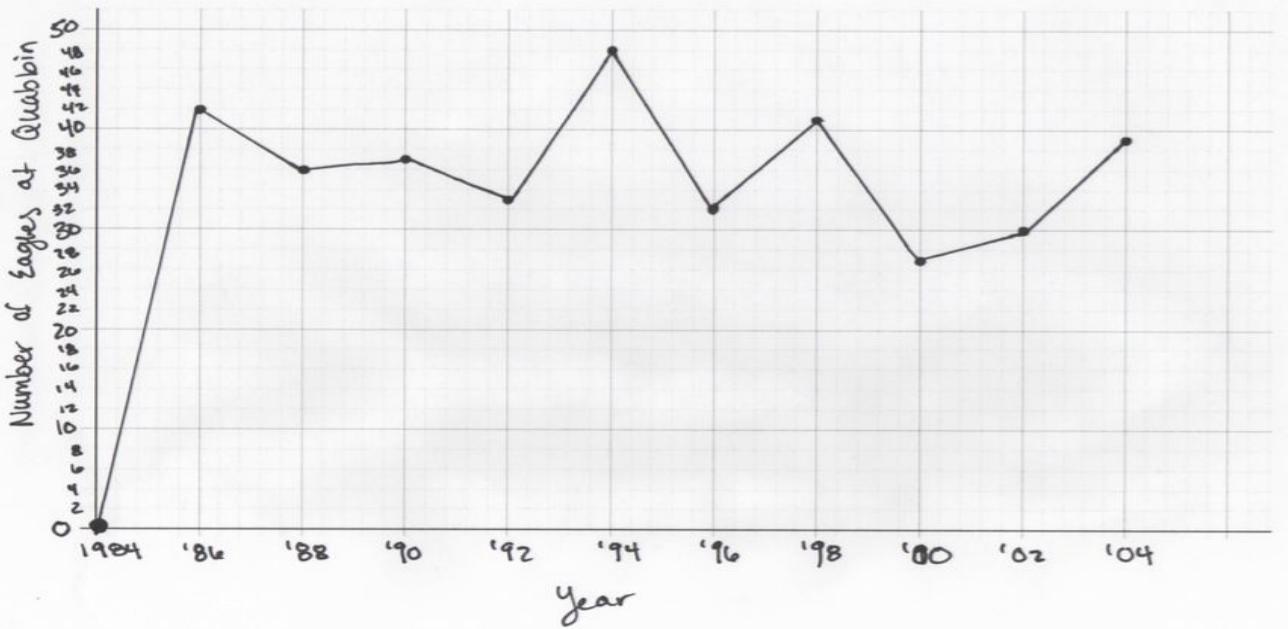
Completed Table

Year	Number of Bald Eagles at Quabbin
1984	0
1986	42
1988	36
1990	37
1992	33
1994	48
1996	32
1998	41
2000	27
2002	30
2004	39



Completed Graph

Group Member Names Bewan, Sarah, Amanda, Mike



Exit Ticket: Poll Everywhere

(*NOTE: Teachers will need to set up their own poll using their own account.)

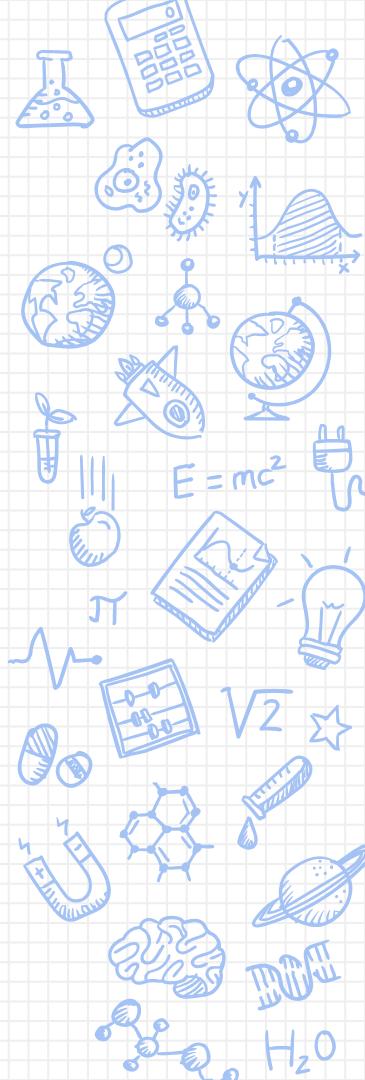
1. Using your tablet or computer:

www.PollEV.com/ExamplePoll617

OR using your phone:

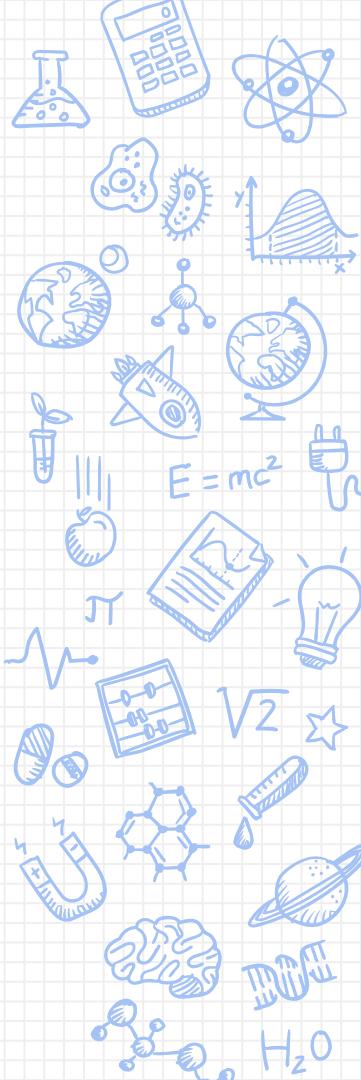
Text: EXAMPLEPOLL617 to 37607 to
join the session

2. Answer the question using the graph
on your graphic organizer



Works Cited

- ✗ Standards
 - ✗ www.iste.org
 - ✗ www.corestandards.org
 - ✗ www.nextgenscience.org
 - ✗ www.doe.mass.edu/odl/standards/itstand.pdf
- ✗ Data on Bald Eagles
 - ✗ www.baldeagleinfo.com/eagle/eagle11.html
 - ✗ udel.edu/~hardesty/apec480/proj5/bald_eagles.pdf
 - ✗ www.biologicaldiversity.org/species/birds/bald_eagle/report/
 - ✗ www.oars3rivers.org/sites/default/files/Bringing%20Back%20Magnificence.pdf
 - ✗ gis.nacse.org/eagles/search.php



Graphic Organizer: Interpreting a Narrative to Create a Line Graph

Lesson Objective: I will be able to identify and annotate key information from a narrative, and use it to plot coordinates and create a labeled graph.

DO NOW: Matching Activity either using envelope packet or online

<https://goo.gl/XHCBA0>

Turn and Talk (1 minute each): What information from the narrative did you use to match your graphs?

Read the passage. What is the most important information from the narrative?

Annotation Notes:

1. Read through the passage fully, and mark any words that you do not understand. Define those terms.
 2. Then read through again. This time marking all:
 - a. Years with yellow
 - b. Quantities with green
 - c. What's being counted (variable) in pen or pencil

Fill in the Table:

Year	Number of Bald Eagles at Quabbin

Graphic Organizer:
Interpreting a Narrative to Create a Line Graph

Group Graphing Directions

Together as a group, you are going to create one graph.

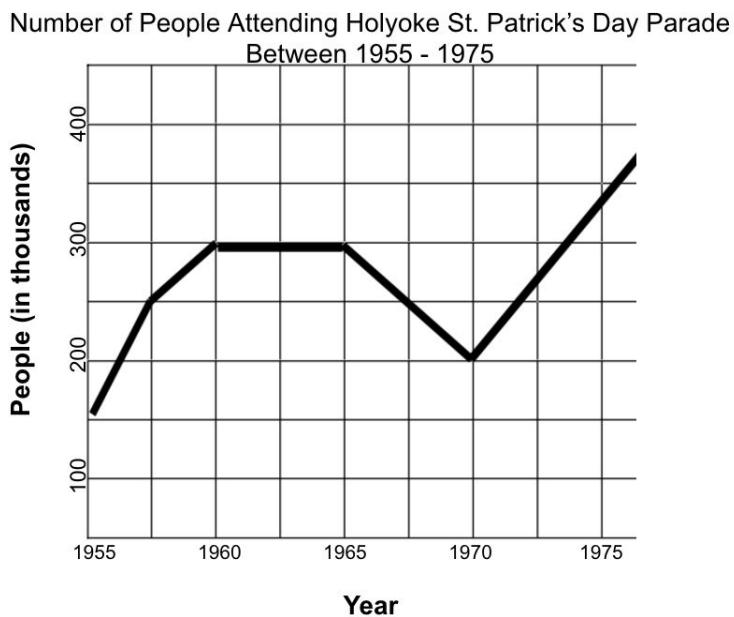
1. Label each of your axes.
2. Plot the points from your table onto your graph.
3. Connect the points that you have plotted, to form the line graph.
4. Title the graph.
5. Raise your hand when you have finished, to have a teacher come and check your work.

Exit Ticket:

Please complete online at www.PollEV.com/bevanbrunell617 OR by texting

BEVANBRUNELL617 to 37607 to join the session, then text either A, B, C, or D

What year could there have been a major snow storm the week of the Holyoke St. Patrick's Day Parade, impacting the total number of attendees?



- A. 1955
- B. 1960
- C. 1970
- D. 1975

Graphic Organizer:
Interpreting a Narrative to Create a Line Graph

Teacher Copy

Lesson Objective: I will be able to identify and annotate key information from a narrative, and use it to plot coordinates and create a labeled graph.

DO NOW: Matching Activity either using envelope packet or online

<https://goo.gl/XHCBA0>

Turn and Talk (1 minute each): What information from the narrative did you use to match your graphs? Students may discuss years, number of birds, verbs such as increasing, decreasing, dropped by...

Read the passage. What is the most important information from the narrative?

Years, number of birds, verbs such as increasing by, decreasing by, dropped by...

Annotation Notes:

3. Read through the passage fully, and mark any words that you do not understand. Define those terms.
4. Then read through again. This time marking all:
 - a. Years with yellow
 - b. Quantities with green
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Fill in the Table:

Year	Number of Bald Eagles at Quabbin
1984	0
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**Graphic Organizer:
Interpreting a Narrative to Create a Line Graph**

2004	39
------	----

Group Graphing Directions

Together as a group, you are going to create one graph.

6. Label each of your axes.
7. Plot the points from your table onto your graph.
8. Connect the points that you have plotted, to form the line graph.
9. Title the graph.
10. Raise your hand when you have finished, to have a teacher come and check your work.

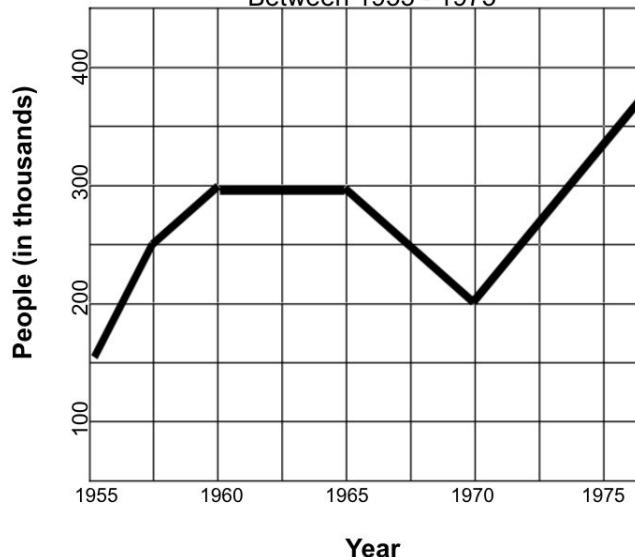
Exit Ticket:

Please complete online at www.PollEV.com/bevanbrunell617 OR by texting

BEVANBRUNELL617 to 37607 to join the session, then text either A, B, C, or D

What year could there have been a major snow storm the week of the Holyoke St. Patrick's Day Parade, impacting the total number of attendees?

Number of People Attending Holyoke St. Patrick's Day Parade
Between 1955 - 1975



- A. 1955
- B. 1960
- C. 1970**
- D. 1975

Narrative 1

Molyoke High School has a wide variety of clubs that students can attend after school. Throughout the week of April 11th to the 15th however, the number of students varies drastically. The weather on Monday and Tuesday was very rainy, which led to many of the outdoor clubs being cancelled those days. On Wednesday, the sun came back out, which led to an increase in students. On Thursday, Ms. Rudenelle offered extra credit to the students who attended a club after school, which resulted in even more students attending clubs than on Wednesday. On Friday, the largest number of students attended a club, because they didn't have to worry about completing homework for the next day.

Narrative 2

Mr. Shmeagan has been struggling with cell phone usage in his class recently. Luckily, on Sunday he doesn't have to worry about it, because he is at home watching football. However, when he comes to school on Monday, he noticed four students using their cell phones during his lesson. He tried to not call attention to it, and continue on with his lesson. Unfortunately, this resulted in more students using their cell phones, because there were no consequences. On Tuesday there were six total students who used their cell phones, and on Wednesday that number increased to ten. After Wednesday's class, Mr. Shmeagan was really upset. Was he really that boring of a teacher that ten students wanted to be on their cell phones?? He had to make a change. On Thursday he brought all of his students outside to do some field work, and the number of students on their phones went down to four. On Friday he gave everyone a quiz, but wasn't closely paying attention because he got an important call from the front office. Many students were texting each other answers throughout the quiz, and the number of students on their phones jumped up to twelve. Mr. Shmeagan didn't even notice...

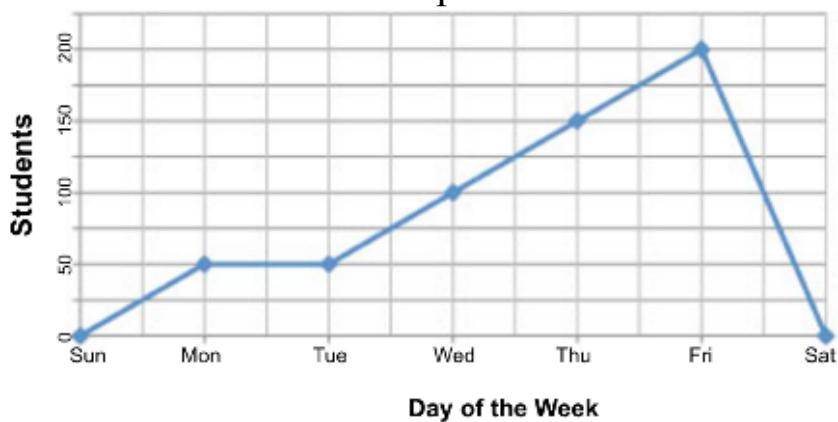
Narrative for Lesson

By 1905, the Bald Eagle population disappeared completely in the Swift River Valley due to deforestation to make way for farmland and industry.

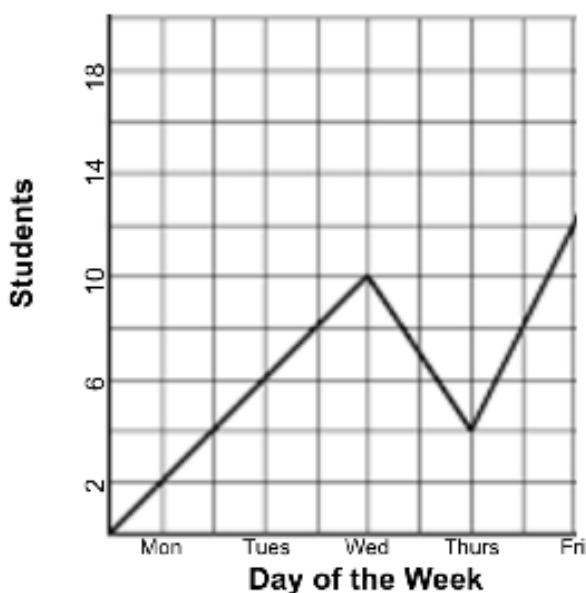
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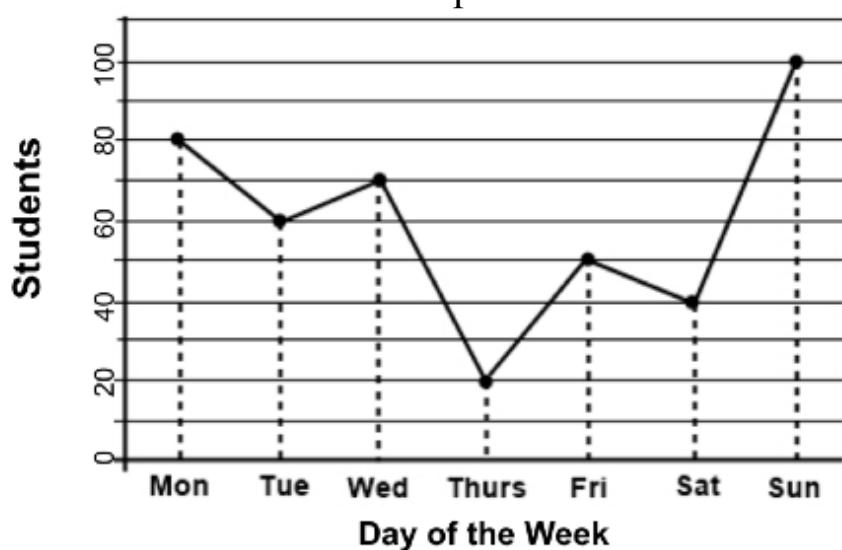
Graph A



Graph B



Graph C



Group Member Names _____

Lesson Objective: I will be able to identify and annotate key information from a narrative, and use it to plot coordinates and create a labeled graph.

How confident do you feel that you mastered today's objective? (Circle One)



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LESSON OBJECTIVE:

I will be able to identify and annotate key info from a narrative and use it to plot coordinates and create a labeled graph.

AGENDA:

- DO-NOW: Match narratives with correct graph.
- MINI-LESSON: Annotate narrative
Fill-in Table
Label Graph
Plot Points
- EXIT TICKET
- SELF-EVALUATION

Year	Number of Bald Eagles at Quabbin
------	--

1984	0
1986	42
1988	36

Words to Look For:

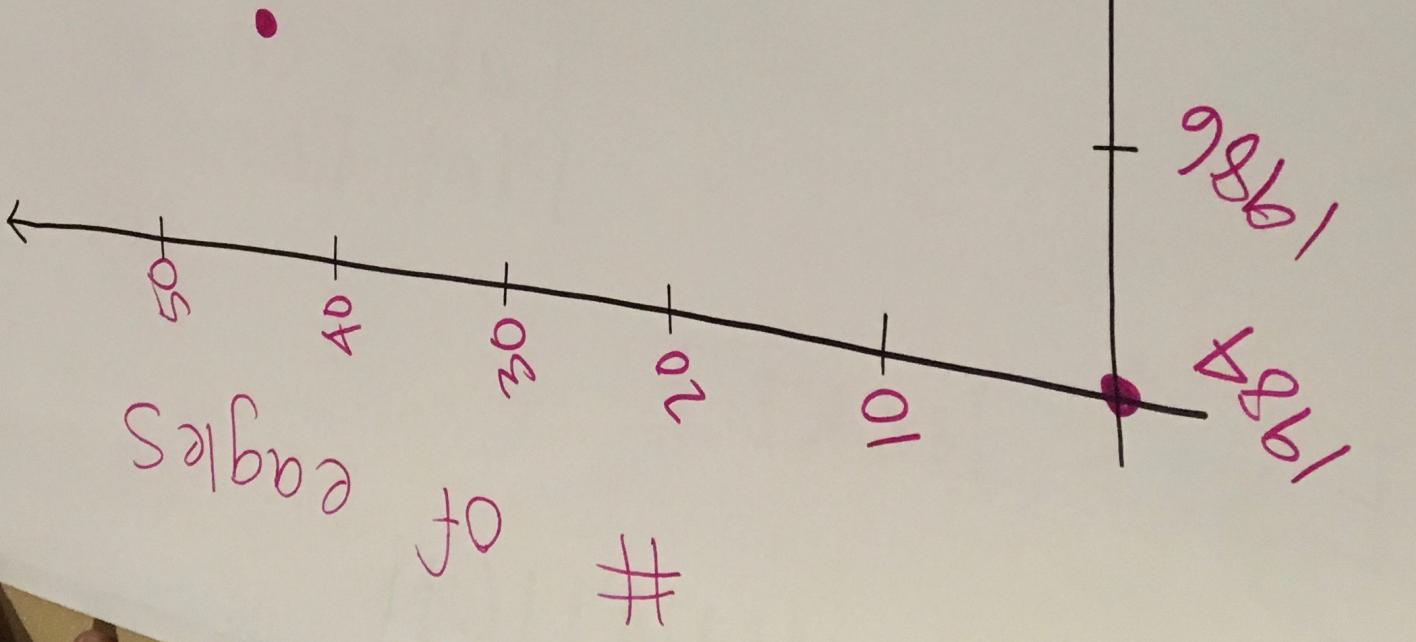
• Increasing + ↑
Creciente

• Decreasing - ↓
Decreciente

• Dropped by - ↓
Decreciente

How many eagles at Quabbin

1984 - 2004



years