# Lesson Plan

## II. Specific Objectives

### * Enrichment Objectives

### ** Remedial Objectives

## III. Procedure

### A. Introduction/Motivation

1. Tell the students that this week we will be learning about personal health and using different types of graphs to chart different healthy activities.
2. Ask the students how often do they exercise?
3. Ask the students to think of some different exercises they have done that got their heart rate up?
4. Ask the students do they know what a line graph is and what it is used for?
5. Pass out each student a KWL chart.
6. Ask the students to think about what they know about a line graph.
7. Tell the students that today they will be learning about graphing data on a line graph. Explain to the students that different information can be graphed on a line graph and that they are simple to analyze.
8. Tell the students that it is important to be able to create a line graph on data collected and to be able to interpret the results shown on the line graph. Explain to the students that many different businesses provide information in forms of graphs, including line graphs and that it is important for them to know this skill for when they enter the job force.
9. Tell the students that by the end of today’s lesson they will be able to construct a line graph using the heart rate results from the exercises they did in the health lesson.

### B. Study/Learning Activities

### C. Culmination

### D. Follow-up

(Include directional statements for evaluation and any enrichment or individual activities)

## IV. Materials/Resources

### KWL Chart (Attachment 1)

## V. Evaluation related to objectives

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I. Main Ideas/Conceptual Understandings/Goals: To know how to obtain data and construct a line graph from that data.
# LESSON PLAN

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<td>** Objective:</td>
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<td>Using the heart rate results from the exercises, the student will construct a line graph with all its parts demonstrating its results correctly. <em>(Applying)</em></td>
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**B. Study/Learning**

1. Show the students a picture of a line graph on the overhead projector. Ask the students if they know the meaning of the word line graph?
2. Tell the students that line graphs show how two pieces of information are related and how data changes over time.
3. Explain to the students that line graphs compare two variables and that each variable is plotted along an axis.
4. Tell the students that a line graph has a vertical axis or y-axis and a horizontal axis or x-axis. Show the students the vertical and horizontal axis on a line graph. Tell the student an example of how a vertical and horizontal axis can be used.
   - Tell the student that if they wanted to graph the height of a ball after it has been thrown, they could put the time along the horizontal axis and the height of how far the ball went along the vertical axis.
   - Explain to the students that the dependent variable is plotted on the Y-axis and usually measures quantity (percentage, dollars, liters, etc.) The independent variable is plotted on the X-axis and usually measures time.
5. Explain to the students that line graphs are used to analyze the nature of changes in quantities.
6. Draw an example of a line graph on the board for the students using the following data.
   - Y-axis: $0.50, $0.75, $1.00, $1.25
7. Write the title “Cost of Milk at School” above the graph. Ask students where the first point in the graph should go if the cost of milk was $0.50 in 2005. Mark this point on the graph. Have the students point out where other points should be marked. When done, connect the points with a line.

*Line Graph (Attachment 2)*

Teacher will listen to student’s responses.
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<td>8. Ask the students if they have any questions about a line graph?</td>
<td>- Allow response time.</td>
<td>9. Tell the students that we will now do an activity to help them practice what they have learned about line graphs.</td>
<td>10. <strong>(Guided Practice) ART:</strong> Divide the students into four groups and give each group a poster board, rulers, markers, and some data on a Relay Race.</td>
<td>Poster boards, rulers, markers</td>
<td>Teacher will observe the students as they create their line graph.</td>
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<td>11. Tell each group to create a line graph with the materials that was given to them. Tell the students to make sure they give their chart a title.</td>
<td>12. Have each group present their charts to the class when they are done.</td>
<td>13. <strong>(Independent Practice)</strong> Tell the students that they will be participating in another activity that will help them understand line graphs.</td>
<td>14. Pass out each student a “Make a Line Graph” handout.</td>
<td>Make a Line Graph Handout (Attachment 3)</td>
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<td>15. Tell the students to use the data on the handout to create a line graph.</td>
<td>16. Go over the line graph and data with the students as a whole class discussion when the students get done.</td>
<td>17. Ask the students if they have any questions at this time about line graphs.</td>
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### C. Culmination

1. Review the students on what a line graph is and how to create one. Ask the students if they have any questions.
2. Draw a line graph on the board and allow the students in the class to come up with a title for the line graph and different data.
3. Allow the students to come to the board and connect the dots of the data and information the students gave for the line graph.
4. Review the chart/line graph with the class.
**II. Specific Objectives**

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**III. Procedure**

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**IV. Materials/Resources**

**V. Evaluation related to objectives**

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**D. Follow-Up (Health)**

1. Tell the students they are going to create their own line graph using their heart rate results from the health lesson.
2. Tell the students that the graph should include both a Y-axis and an X-axis and that their results should be charted correctly.
3. Tell the students to make sure they take the data and analyze it and create a line graph that shows the data and all the correct parts of a line graph.
4. Give each student a “Graph Your Heart Rate” handout.
5. Tell the students that each graph may look different, but the Y-axis and X-axis variables should be placed in the correct spot on the chart. Tell the students to make sure their graphs are done neatly.
6. Tell the students to turn their papers over when they are done.
7. Tell the students that for homework they are to go home and create a line graph that shows how many times a day they eat healthy food.
8. Tell the students that this homework will be turned in tomorrow morning when class starts, and that we will review their graphs as a class.

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Teacher will evaluate students’ graphs for all components and correctness to see who mastered the objective.

Graph Your Heart Rate (Attachment 4)