

Instructional Unit Lessons

Lesson Plan #1 Title: Graphing Components

Performance Objective: Given class discussions of identifying different types of graphs and labeling parts of graphs with collaborative learning, the students will be given a worksheet to label the correct type of graph. Students will label and identify the different graphs of **pictograph, bar graph, line graph, pie chart, line plot, tally graph** to the correct graph with 90% accuracy.

Resources or Materials Needed:

❖ Instructor

- Projector
- Pictures of different graphs
- Titles of graphs (**pictograph, bar graph, line graph, pie chart, line plot, tally graph**) on index cards.
- Pictures of different graphs (**pictograph, bar graph, line graph, pie chart, line plot, tally graph**)
- Math storybook of graphs:
 - *The Great Graph Contest* by Loreen Leedy. 2006 Holiday House

❖ Students

- Manila envelopes with titles of graphs and pictures of graphs for matching game.
- pencils

Time: Approximately 90 minutes

Step 1: Pre-Instructional Activities: (students are seated at their desks)

- The instructor will begin by projecting examples of graphs on the board.
- Explain that graphs are used to organize data or information.

Step 2: Content Presentation:

- ❖ Explain to students that we will read *The Great Graph Contest* to understand how graphs are used to organize information.
 - Instruct the students to come to the floor
 - Read the story
 - Pause and reflect throughout the story to identify the different kinds of graphs (bar graphs, pie charts, Venn diagrams, etc.)
- ❖ Display the different graph posters *pictographs, bar graphs, pie chart, line graph, tally chart, line plot*
 - Teacher will identify and define the components of the graphs.
 - Students will choral read the components of the graph when teacher points to them.
- ❖ Display the cards of the picture of graphs and the definition with title to the graphs
 - Mix up the cards

- Model playing a matching game with the cards 3 or more times as needed.

Step 3: Learner Participation:

- ❖ Instruct the students to go back to their seats that are arranged in groups.
 - Teacher will instruct the students that they will be matching the title to graphs with the correct graph picture and definition.
- ❖ Distribute manila envelopes that contain the graphing matching game cards.
 - Instruct the students to place cards face down on desks.
 - Students will work in groups to match the title to graphs with the correct graph picture and definition.
- ❖ Teacher will monitor and provide feedback

Step 4: Assessment: (Appendix A)

- ❖ Students will be given a worksheet example of graphs.
- ❖ Students will label the title to each type of the graph.

Step 5: Follow-Through Activities:

- ❖ Manila envelopes with graphing matching game will go in the math center tubs.
- ❖ Students can practice more graphing at home with their ixl.com accounts

Lesson Plan Summary: The instructional strategy of organizing the components of a graph aligns with the cognitive learning theory. Another instructional strategy is collaborative learning, which is evident when the students work in groups to label and build the graph components. Collaborative learning aligns with the learning theory of constructivism, as the students were building graphs together.