Objective

By the end of this lesson, the student will be able to understand the concept of scatter graphs, create their own scatter graph using given data, and interpret the relationships between the variables represented in the graph.

Materials and Prep

- Paper
- Pencil or pen
- Ruler (optional for drawing axes)
- Data sets (provided in the lesson)
- Knowledge of basic graphing concepts (axes, points, etc.)

Activities

- **Introduction to Scatter Graphs:** Start with a fun discussion about what scatter graphs are and where we see them in real life, such as in sports statistics or weather data. This will help the student relate to the concept.

- **Data Collection:** Have the student gather data from their favorite activities or interests, like the number of hours spent on different hobbies versus their enjoyment rating. This personal connection will make the lesson more engaging.

- **Graph Creation:** Once the data is collected, guide the student to plot the data on a scatter graph. Encourage them to label the axes and title their graph creatively.

- **Interpretation Challenge:** After creating the graph, ask the student to interpret the data. What trends do they see? Are there any outliers? This will enhance their analytical skills.

Talking Points

- "A scatter graph helps us visualize the relationship between two different variables. Can you think of two things that might be related?"
- "When we plot points on a scatter graph, each point represents an observation. What do you think happens when points are close together?"
- "Look at your graph: if the points trend upwards, what does that tell you about the relationship between the two variables?"
- "Sometimes we see points that are far away from others. These are called outliers. Why do you think they might be important?"
- "Scatter graphs can help us make predictions. If we know the relationship, can we guess what might happen in a new situation?"