**Graphing Gummies**

**Grade**: Primary

**Lesson Length**: 30-45 minutes

**Outcome**: F1 Collect and organize data about issues of personal interest.

 F1.4 Attempt to predict the results before data is organized.

**Materials**:

Post-it notes, Bags of Gummie Bears (1 per every 4 students), Crayons, Paper, Pencils, bar graph to be filled in, Chart paper, Markers.

**Procedure**:

 Ask students: What are ways we organize information and things? What is a graph? What graphs have we made in the past? What can we graph?

Part 1: Gather students and model making a picture graph and bar graph. Give each students a post it and a pencil. Ask which animal they like best: a turtle, bird, or a horse. Have simple drawings of each on the bottom of the chart paper. Ask each student to quickly draw their favorite of the 3 animals. When students are finished drawing, ask them to make a prediction as to what animal will be most/least popular. This can be done in a voting matter. Ask student to come up 2 at a time and post their favorite animal above the corresponding sketch. Explain this is a picture graph and then fill in a bar graph of the results.

Part 2: Explain that each group of 4 students will be getting a bag of gummy bears and each student will be responsible to sort one of the 4 colors in the bag. Have students decide on one of the 4 colors before they see the bag to prevent any problems. Once colors are sorted, students must line up their gummy bears on the paper provided to form a picture graph. They can choose to line them up end over end, or side by side, organized by color. The student’s picture graph must be okayed by the teacher before moving on to the bar graph.

 Each student will need to fill in the graph according to the number of each colored bear. Crayons will be used to color in squares representing the number of gummy bear they had. Teacher can circulate the room asking how many more did one color have more than another and revisit the strategies for finding how many more.

 At the bottom of the paper students will be asked to fill in the questions: Which color had the most? Which color had the least?

 Ask students to predict which color gummy bear will there be most of/ least of in the class? Children must at the end present their bar graph to the class with their findings.

 At the end of the assignment when all children in their group have completed their graphs they may eat the color they chose to organize.

\*\* Be sure to inform students that the number of gummy bears in each bag will vary and this is the reason why we are graphing and counting them. However, if a student ends up with more gummies s/he will be encouraged to share. Remind students that any fighting or squabbling over the gummy bears will result in taking away the treat.

**Assessment**:

 Note children contributing to the initial discussion and making of the graphs. Observe students making the picture graph and watch for accurate line ups. Collect bar graphs at the end of the assignment.

**Modifications**:

If students are having a hard time completing the work singly, they may complete their graph with a fellow group member.

 If gummy bears are unable to be used students may wish to collect information on favorite colors or subject, pets etc. Groups could each have a different topic to collect information on and graph.

If there are time constraints students in the group could collaborate on constructing 1 graph.

Example of bar graph students will shade in.

\*\*\* Note be sure the graph bars are the same size as the gummy bears so students can line up the gummy bears beside the graph blocks to easy their counting.

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