

## Lesson Plan #6 Title: Collecting Data

**Performance Objective:** Given class discussions of identifying different types of graphs and the building of pictographs and bar graphs, the students will be given a blank survey worksheet to ask at least 10 classmates to choose between two topic choices to collect data. Students will show collected data, analyze data correctly, and post their graphs on an online bulletin board source.

### Resources or Materials Needed:

#### ❖ Instructor

- Projector
- Chart paper titled: *Which Scares You the Most?*
- Chart paper labeled with 2 columns labeled: *snakes* or *spiders*
- Dry-Erase Markers

#### ❖ Students

- Survey worksheet titled: *Which do you like more? Cake or Ice Cream?*
- Pencils
- Small poster boards or construction paper
- Colored pencils or crayons
- Google Chromebook

**Time:** Approximately 90 minutes

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

- Teacher will review the purpose of graphs is to gather information and represent data.
- Teacher will review bar graphs and pictographs.
- Teacher will review the components of graphs (title, key, labels)

### Step 2: Content Presentation:

- ❖ Explain to students that you are going to take a survey of the class and define the term *survey*.
  - Instruct the students to come to the floor
  - Show the students the chart paper titled *Which Scares You the Most?*
  - Show the students the two columns labeled *Snakes* or *Spiders*
  - Direct each student to come to the chart paper and use a dry erase marker to put an 'x' in the correct column of which creature they are scared of the most.
- ❖ Questioning:
  - 1. *Are more people afraid of snakes or spiders?*
  - 2. *Which creature are students afraid of the least?*
  - 3. *How many more students are afraid of \_\_\_\_\_ than \_\_\_\_\_?*
  - 4. *What other two topics could we survey our class?*

### 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 using a survey worksheet to collect data.
- Teacher will instruct the students that they will be asking 10 classmates if they like cake or ice cream.
- ❖ Distribute the survey worksheet.
  - Instruct the students to walk around and ask 10 students if they like cake or ice cream.
- ❖ Teacher will monitor and provide feedback

**Step 4: Assessment: (Appendix F and G)**

- ❖ Instruct students that they are to use their survey data sheets to create a picture graph or a bar graph then upload a picture of their graph to <https://padlet.com/>
- ❖ Students will create pictographs or bar graphs using poster boards, crayons, colored pencils, or markers.
- ❖ Students will take a picture of their completed graph using the Google Chromebooks and upload to <https://padlet.com/>.

**Step 5: Follow-Through Activities:**

- ❖ Survey gathering data sheets and Google Chromebook at math center.
- ❖ Students can practice more graphing at home with their ixl.com accounts.

**Lesson Plan Summary:** The instructional strategy of creating a pictograph or bar graph is with the constructivism theory. Another instructional strategy is collaborative learning, which is evident when the students must complete a survey about their classmates. The process of uploading their completed projects on the Padlet online bulletin source provides an authentic learning experience of the constructivism theory.