**Ice Cream and Temperature- Correlation Activity**

**Goal:** The goal of this activity is for students to graph the data on a scatterplot and discuss the relationship they see between ice cream and temperature.

**Materials Needed:** Student worksheet and a pencil.

**Directions:** This activity can be done independently or in groups.

Have your students answer question one before graphing the data.

Once they have discussed they can now go ahead and graph the data on a scatterplot.

Afterwards they can answer the follow-up questions.

**Activity**

Is there a relationship between the amount of ice cream sold and the temperature outside? Well, one ice cream store recorded their ice cream sales and the temperature outside for the last 11 days to see if a relationship exists. Below is the data they collected:

|  |  |
| --- | --- |
| Temperature in degrees Fahrenheit | Total Ice Cream Sales |
| 100 | 425 |
| 106 | 530 |
| 102 | 455 |
| 107 | 565 |
| 100 | 400 |
| 105 | 525 |
| 104 | 520 |
| 103 | 487 |
| 101 | 431 |
| 105 | 500 |
| 103 | 478 |

1. What do you think about the temperature and ice cream sales? Do you think there is a relationship?

**Answers will vary, but many will probably say yes. You can prompt them and ask them if they believe it is a positive or negative relationship/correlation.**

1. Create a scatterplot with the data provided.
2. What do you notice about the graph? What would you tell the owner of the ice cream store?

**The graph has a positive linear slope. The variables seem to be correlated meaning there appears to be a relationship between ice cream sales and the temperature outside. It appears that the hotter it is outside, the more ice cream sales there were.**

1. What other variables could share a relationship? Please write down at least two.

**Answers will vary. Here are some examples**

**Pokemon go and exercies**

**Height and weight**

**Attendance at a baseball game and number of hot dogs sold**

**Weather and umbrella sales**