

## Lesson 34 – Investigating Quadratic Relations – Data Analysis

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### (A) Lesson Objectives

- a. Gather data from a variety of activities that lead to quadratic relations (day 1)
- b. Graph scatter plots by hand and by technology from collected data (HW day 1)
- c. Analyze data gathered by looking at first differences, constant ratios and/or constant second differences (day 2)

### **(B) Lesson/Investigation Set Up**

I will set up 6 stations around the classroom, wherein you are required to complete the activity and record the data from the activity. You will leave class having completed as many activities as possible (hopefully 5 of them) and have complete data sets for each completed activity.

### **(C) Station 1 – Pillow Toss & Data Ranger**

### **(D) Station 2 – Ball Bounce and Data Ranger**

### **(E) Station 3 – Optimizing Perimeter & Area Modelling**

### **(F) Station 4 – Optimizing Profit/Loss Problem**

### **(G) Station 5 – Figurate Numbers: Pentagonal Numbers**

### **(H) Station 6 – Ping Pong Catapult**

