Unit 4c-Algebra: Analyze Patterns and Relationships

Content Area: **Math**
Course(s): **Math 5**
Time Period: **Marking Period 4**
Length: **MP4 Topic 15 15-1 to 15-4**
Status: **Published**

Essential Questions

- How can number patterns be analyzed and graphed?
- How can number patterns and graphs be used to solve problems?

Big Ideas

- **Look for Relationships:** Students use rules to extend two patterns and look for a relationship between corresponding terms. The relationships are usually additive; the value of a number in one set is generally a given amount more than the corresponding value in the second set. Later in the topic, the relationships are usually multiplicative; the value of a number in one set is generally a given amount times as much as the corresponding value in the second set.
- **Graph Patterns:** Students will continue to extend two patterns and look for relationships. They will use graphs to represent these patterns, to help them find relationships, and to solve problems.

Enduring Understandings

Operations and Algebraic Thinking

5.OA.B.3 [M] Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. For example, given the rule “Add 3” and the starting number 0, and given the rule “Add 6” and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.

Geometry

5.G.A.2 [M] Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

Mathematical Practices Focus

1. Make sense of problems and persevere in solving them.