

## **BIE Suggested Scope and Sequence Grade 8 Math Interim 1**

### **Unit 1: Exponents & Integer Properties (8.EE.A.1)**

*Focus:* Understanding and applying properties of integer exponents.

- Review: Multiplying/dividing powers of the same base (building from Grade 7).
- Extend: Zero exponents, negative exponents, simplifying expressions.
- Application: Write and interpret expressions with exponents in scientific notation.

### **Unit 2: Scientific Notation (8.EE.A.3, 8.EE.A.4)**

*Focus:* Working with very large and very small numbers.

- Represent numbers using scientific notation (model with real-world contexts).
- Perform operations (multiplication/division) with numbers in scientific notation.
- Compare and order numbers expressed in different forms.
- Real-world applications: astronomy, technology, population data.

### **Unit 3: Transformations & Congruence (8.G.A.1, 8.G.A.2)**

*Focus:* Understanding rigid motions and congruence.

Explore: Translations, rotations, reflections on the coordinate plane.

- Understand congruence as a sequence of rigid transformations.
- Develop geometric language: preserved properties (length, angle, parallelism).
- Connect: Congruence  $\approx$  “same shape and size, different position.”

### **Unit 4: Similarity & Dilations (8.G.A.3, 8.G.A.4)**

*Focus:* Dilations and similarity through transformations.

- Define similarity in terms of proportionality and angle preservation.
- Perform dilations on the coordinate plane.
- Explore relationships between similarity, scale factors, and proportional reasoning.
- Apply similarity to problem-solving (triangles, real-world scale models).