**Westside High School - Weekly Plan to Align Lessons (Week At a Glance) - 2024-25**

**Teacher:** Sorrells **Subject:** Math **Course:** Adv. Algebra C & C **Grade:** 10–11th **Date(s): September 15-19, 2025**

**Standard(s): AA.FGR.3**: Explore and analyze structures and patterns for exponential and logarithmic functions and use exponential and logarithmic expressions, equations, and functions to model real-life phenomena.

* **AA.FGR.3.6** — Create, interpret, and solve exponential equations to represent relationships between quantities and analyze the relationships numerically with tables, algebraically, and graphically.
* **AA.A.CED.1** — Create equations in one variable and use them to solve problems, including exponential equations.
* **AA.A.SSE.3** — Choose and produce equivalent forms of expressions to reveal properties of the quantity represented.

**Assessment:** None

| **Day** | **Learning Target (LT)** | **Success Criteria (SC)** | **Activation of Learning (5 min)** | **Focused Instruction – *I DO* (10 min)** | **Guided Instruction – *WE DO* (10 min)** | **Collaborative Learning – *Y’ALL DO* (10 min)** | **Independent Learning – *YOU DO* (10 min)** | **Closing (5 min)** |
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| **Monday** | **LT:** I will learn how to use properties of exponents to simplify each side of an exponential equation. **SC1:** I can identify and correctly apply the product, quotient, and power rules of exponents. **SC2:** I can simplify exponential expressions before solving. | **Strategy: Notice/Wonder (literacy)** Students look at a simple exponential equation like 2³·2² = ? and write one “Notice” and one “Wonder.” | **Think Aloud + Visuals** Teacher models simplifying expressions step-by-step using exponent rules (product, quotient, power). Uses color coding to highlight changes. | **Worked Examples (Graphic Organizer)** Students follow along with scaffolded notes; teachers ask probing questions as they simplify problems together. | **Think/Pair/Share** In pairs, students simplify 2–3 equations, explain which rule they used, and share reasoning. | **Practice Handout (Differentiated)** Tiered problems: Level 1 (single exponent rule), Level 2 (two steps). Students solve independently with support (reference sheet). | **Exit Ticket (3–2–1)** 3 things I learned, 2 exponent rules I remember, 1 question I still have. |  |
| **Tuesday** | **LT:** I will learn how to rewrite exponential equations so both sides have the same base. **SC1:** I can rewrite numbers with a common base (e.g., 8 as 2³). **SC2:** I can set exponents equal and solve once the bases match. | **Quick Write (literacy)** Prompt: “What does it mean for two equations to ‘have the same base’? Write in your own words.” | **Demonstration + Think Aloud** Teacher models solving 2ˣ = 8 by rewriting 8 as 2³. Explains why setting exponents equal makes sense. | **Guided Notes + Reciprocal Teaching** Students explain steps to each other in groups while solving a teacher-given example. Teacher circulates and scaffolds. | **Small Groups – Jigsaw Strategy** Groups each solve one exponential equation with uncommon bases, then teach solution steps to class. | **Independent Practice (Choice Board)** Students choose 3 problems: (a) same base easy, (b) rewriting base, (c) challenge problem. Scaffold: number bank and hints for support. | **Exit Ticket – Solve 2 Problems** 1) 3ˣ = 27 2) 5ˣ = 125. Teacher collects to check mastery. |  |
| **Wed** | Progress Monitoring |
| **Thursday** | **LT:** I can identify bases and exponents in exponential expressions.**SC1:** I can point out the base and the exponent.**SC2:** I can expand exponential expressions. | **Quick Write:** “What does 2³ mean?” and share. | Teacher models how to read exponential notation (base vs. exponent) using color coding and expanded form. | Students and teacher highlight base/exponent on 5 examples and expand them together. | Partners do “Exponent Match” cards (base/exponent to expanded form). **Strategy:** *Hands-On Matching* | Students complete 5 practice problems labeling base/exponent. | **Fist-to-Five:** Confidence rating on exponents. |  |
| **Friday** | **LT:** I can multiply exponential expressions with the same base.**SC1:** I can add exponents when multiplying same bases.**SC2:** I can simplify the expression. | **Anticipation Guide:** True/False “2³×2² = 2⁶” | Teacher shows 2³×2² = 2⁵ by expanding then combining like factors. | Students solve 3 examples together, adding exponents. | Small groups do “Exponent Sort” — match problems to correct simplified answers. **Strategy:** *Sorting* | Students solve 5 problems using product rule. | **Think-Pair-Share:** How did you know to add the exponents? |  |