1 Searching for Patterns

Topic 3: Linear Regressions

ELPS: 1.A, 1.C, 1.E, 1.F, 1.G, 2.C, 2.E, 2.I, 3.D, 3.E, 4.B, 4.C, 5.B, 5.F, 5.G   **Topic Pacing:** 7 Days

Lesson	Lesson Title	Highlights	TEKS*	Pacing**
1	**Like a Glove** Least Squares Regressions	Students informally determine a line of best fit by visual approximation of a hand-drawn line. They are then introduced to a formal method to determine the linear regression line of a data set using graphing technology; the mathematics behind the calculator function is explained using the related terms *Least Squares Method, regression line,* and *centroid*. Students then use the line of best fit to make predictions and distinguish between the terms *interpolation* and *extrapolation*.	**A.3C** A.4C A.12A	2
	Suggested Placement of Learning Individually with Skills Practice or MATHia			1
2	**Gotta Keep It Correlatin'** Correlation	This lesson provides several definitions related to correlations. The terms *correlation* and *correlation coefficient* are defined. The formula to compute the correlation coefficient is given; however, students are only required to use technology to determine the value of r or to estimate correlation coefficients from a list of choices. The distinction is then made between the meanings of r and r^2, the coefficient of determination. Students use these terms to make decisions regarding the model that best fits the data. It is suggested that students revisit the modeling process as they solve these problems in context. The terms *causation, necessary condition,* and *sufficient condition* are defined. Examples are provided to help students see the difference between correlation and causation. The terms *common response* and *confounding variable* are defined as relationships often mistaken for causation.	A.4A A.4B A.4C	2
	Suggested Placement of Learning Individually with Skills Practice or MATHia			1
	End of Topic Assessment			1

1 Day Pacing = 45-minute Session
✱ This activity highlights a key term or concept that is essential to the learning goals of the lesson.

Day 1
TEKS: **A.3C**, A.4C, A.12A
LESSON 1 **Like a Glove** **GETTING STARTED** ✱ **ACTIVITY 1** ✱

Day 2
LESSON 1 continued **ACTIVITY 2** **ACTIVITY 3** ✱ **TALK THE TALK** ✱

Day 3
LEARNING INDIVIDUALLY 🔄 Skills Practice OR 🤖 **MATHia**

Day 4
TEKS: A.4A, A.4B, A.4C
LESSON 2 **Gotta Keep It Correlatin'** **GETTING STARTED** **ACTIVITY 1** ✱ **ACTIVITY 2** ✱

Day 5
LESSON 2 continued **ACTIVITY 3** ✱ **ACTIVITY 4** ✱ **TALK THE TALK** ✱

Day 6
LEARNING INDIVIDUALLY 🔄 Skills Practice OR 🤖 **MATHia**

Day 7
END OF TOPIC ASSESSMENT