WESTSIDE HIGH SCHOOL

Level Up: RISE to Your Potential

24-25 Lesson Plan Template Teacher: COACH BARROW Subject: ON RAMPS STATISTICS

Week of: OCTOBER 21	Monday	Tuesday	Wed./Thurs.	Friday
TEKS	**4(C)** Analyze the distribution characteristics of quantitative data, including determining the possible existence and impact of outliers. **5(A)** Determine probabilities, including the use of a two-way table. **3(D)** Describe and model variability using population and sampling distributions. **2(D)** Distinguish between sample statistics and population parameters.	**4(C)** Analyze the distribution characteristics of quantitative data, including determining the possible existence and impact of outliers. **5(A)** Determine probabilities, including the use of a two-way table.	**1(C)** Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems. **1(G)** Display, explain, or justify mathematical ideas and arguments using precise mathematical language in written or oral communication. **3(D)** Describe and model variability using population and sampling distributions. **5(D)** Compare statistical measures such as sample mean and standard deviation from a	**1(C)** Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems. **1(G)** Display, explain, or justify mathematical ideas and arguments using precise mathematical language in written or oral communication. **3(D)** Describe and model variability using population and sampling distributions. **5(D)** Compare statistical measures such as sample mean and standard deviation from a

			technology-simulated sampling distribution to the theoretical sampling distribution.	technology-simulated sampling distribution to the theoretical sampling distribution.
Learning Objective	STUDENTS WILL BE ABLE TO IDENTIFY PROPERTIES AND USES OF THE STANDARD NORMAL MODEL AS WELL AS CALCULATE Z-SCORES FOR A GIVEN DATA SET USING TECHNOLOGY.	STUDENTS WILL BE ABLE TO IDENTIFY PROPERTIES AND USES OF THE STANDARD NORMAL MODEL AS WELL AS CALCULATE Z-SCORES FOR A GIVEN DATA SET USING TECHNOLOGY.	STUDENTS WILL BE ABLE TO DIFFERENTIATE BETWEEN A POPULATION AND SAMPLING DISTRIBUTION AND DEMONSTRATE THE CENTRAL LIMIT THEOREM USING TECHNOLOGY.	STUDENTS WILL BE ABLE TO DIFFERENTIATE BETWEEN A POPULATION AND SAMPLING DISTRIBUTION AND DEMONSTRATE THE CENTRAL LIMIT THEOREM USING TECHNOLOGY.
Higher Order Thinking Questions				
Agenda	1. **WAG** 2. **3.2 RSTUDIO** 3. **3.2 RSTUDIO SHINY SIMULATION** 4. **LAB 3.2**	1. **LAB 3.2**	1. **UT QUIZ 3** 2. **LESSON 3.3 – SAMPLING DISTRIBUTIONS** 3. **LESSON CHECK 3.3**	1. **3.3 R STUDIO SHINY APP** 2. **HOMEWORK 3.3**
Demonstration of Learning	**Is it possible to find a *z*-score such that the probability is exactly 1? If so, what is that *z*-score? If not, why do you think that is?**	**WRITE THE CONCLUSION, "For professional male soccer players, what height is at the 80th percentile?"**	**UT QUIZ 3**	**Keeping the iterations at the highest possible amount (5,000), what sample size creates a sampling distribution which looks the closest to the population distribution? Why do you think that is?**

Intervention & Extension				
Resources	UT CANVAS/RSTUDIO	UT CANVAS/RSTUDIO	UT CANVAS/RSTUDIO	UT CANVAS/RSTUDIO