**ARC Week at Glance**

**Subject: Math Course: A.P. Statistics Grade: 11th – 12th Dates: 1/27 – 1/31**

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| AP Standard IIIA: Students will explore discrete random variables and determine their probability distributions, expected value(s), and standard deviation.  AP Standard IIIA: Determine the probability of discrete random variables using **geometric and binomial** probability models.  AP Standard IIIA: Explore **Sampling Distributions** through sample means, sample proportions and simulations, and apply the Central Limit Theorem to these distributions.  **Assessment(s):  Quiz  Unit Test  MyMathLab/MathXL  Lab  FRQ’s** | | | | | | |
|  | **Learning Target**  **(I am learning about…)** | **Criteria for Success**  **(I can…)** | **Opening**  *(10 - 15 Mins)* | **Work-Session**  *(20 - 25 mins)* | **Closing**  *(5 - 10 mins)* | **Literacy Tasks/Focus** |
| *(Include at least one/two formatives\*in any part of the lesson as needed)* | | |
| **Monday** | I am learning about discrete random variables. | I can determine probability of discrete random variables using **binomial** and **Normal** models. | Return FRQ #3 from 2008 and discuss AP Scoring Rubric. Also return “Binomial the Easy Way” and discuss scoring | FRQ #3 from 2018  in small groups  \*Summative | View Scoring Rubrics  and self-evaluate responses | How would you score your FRQ? Why? |
| **Tuesday** | I am learning about Sampling Distributions. | I can estimate the true proportion and mean of a population using sampling procedures. | Complete the “Introduction” portion on Beads Activity Document | Draw repeated samples of B.B.’s (size 33) then graph the distribution and estimate the parameters | Was your initial estimate close? | Make a conjecture-What would change/ not change if we increased our sample size? |
| **Wednesday** | I am learning about Sampling Distributions. | I can estimate the true proportion and mean of a population using sampling procedures. | Look and comment on distribution of the class’s proportions on Beads Activity Document | Draw repeated samples of B.B.’s (size 100) then graph the distribution and estimate the parameters | Was your initial estimate close? | Make a conjecture-What would change/ not change if we increased our sample size? |
| **Thursday** | I am learning about Sampling Distributions. | I can estimate the true proportion of a population using sampling procedures. | Look at the Combined Data distribution from 2nd & 3rd periods. Comment on what you see | Notes, modeling and practice with Chapter 17 Notes: Sampling Distributions pages 443 – 449 | #’s 12, 14, 16 pages 465 – 466 | Were you correct in your conjecture yesterday for increasing sample size? |
| **Friday** | I am learning about Sampling Distributions. | I can determine probability for proportions of interest using sampling procedures | Check, share exemplars #’s 12, 14, 16 | Notes, modeling and practice on Chapter 17: Sampling Distributions pages 449 – 450 | Step-by-Step Example with sampling distribution of left-handedness | What conditions must be checked in order to proceed with Normal models to estimate population parameters for proportions? |

**\*** Exit Ticket/Final Stretch Check  Electronic Tools  Dry Erase Boards – quick checks  Turn & Talk Discussion (verbal responses)  Teacher Observation – document Clipboard

Quick Write/Draw  Annotation  Extended Writing  Socratic Seminar  Jigsaw  Thinking Maps  Worked Examples  Other : \_\_\_\_\_\_\_\_\_\_\_