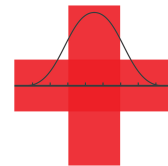


# **STATS AND THE REDESIGNED SAT**

**LINDSEY GALLAS**

**EAST KENTWOOD HIGH SCHOOL**

**[WWW.STATSMEDIC.COM/PASADENA2020](http://WWW.STATSMEDIC.COM/PASADENA2020)**



**STATS MEDIC**

# **INTRODUCTIONS**

**On Post-Its, please write:**

- **Favorite class to teach**
- **What you're hoping to get out of today.**
- **Favorite Karaoke Song**

**Send someone to bring the Post-Its to the posters.**

# INTRODUCTIONS

- **Favorite class to teach: Algebra 2**
- **What you're hoping to get out of today:  
Hear from you what you need.**
- **Favorite Karaoke Song: 1-2 Step by Ciara  
and Missy Elliot**

# THE REDESIGNED SAT

## What's new?

- It is focused on the **skills that are most needed** during the first year of college.
  - The Heart of Algebra
  - Problem Solving and Data Analysis
  - Passport to Advanced Mathematics
  - Additional Topics in Math
- Problems grounded in real-world contexts.
- Calculator/No Calculator sections

# MATH CONTENT AREAS ON SAT

Heart of Algebra	19 Questions	33%
<b>Problem Solving and Data Analysis</b>	<b>17 Questions</b>	<b>29%</b>
Passport to Advanced Mathematics	16 Questions	28%
Additional Topics in Mathematics	6 Questions	10%

# **COURSE CHANGES**

## **Geometry Cuts**

- Perpendicular bisectors and angle bisectors in triangles (centroid, circumcenter, orthocenter, etc.)
- Properties of quadrilaterals and the Quadrilateral Hierarchy

## **Data Analysis Additions**

- Probability
- One Variable Data
- Two Variable Data
- Sampling and Inference

# **SAT CONTENT SPECIFICATIONS**

**Which content dimension do you feel most comfortable with? Least comfortable?**

- One-variable data
- Two-variable data
- Probability
- Inference

# **SAT STATISTICS UNIT**

## **Unit 1: Probability**

**Probability Models and Rules**

**Probability and Two-way Tables**

**Probability and Tree Diagrams**

## **Unit 2: One Variable Data**

**Categorical Data and Displays**

**Measures of Center**

**Measure of Variability**

**Describing Distributions**



# **SAT STATISTICS UNIT**

## **Unit 3: Two Variable Data**

**Scatterplots and Line of Best Fit**

**Predictions and Residuals**

**Models for Non-linear Data**

## **Unit 4: Sampling and Inference**

**Random Sampling**

**Margin of Error**

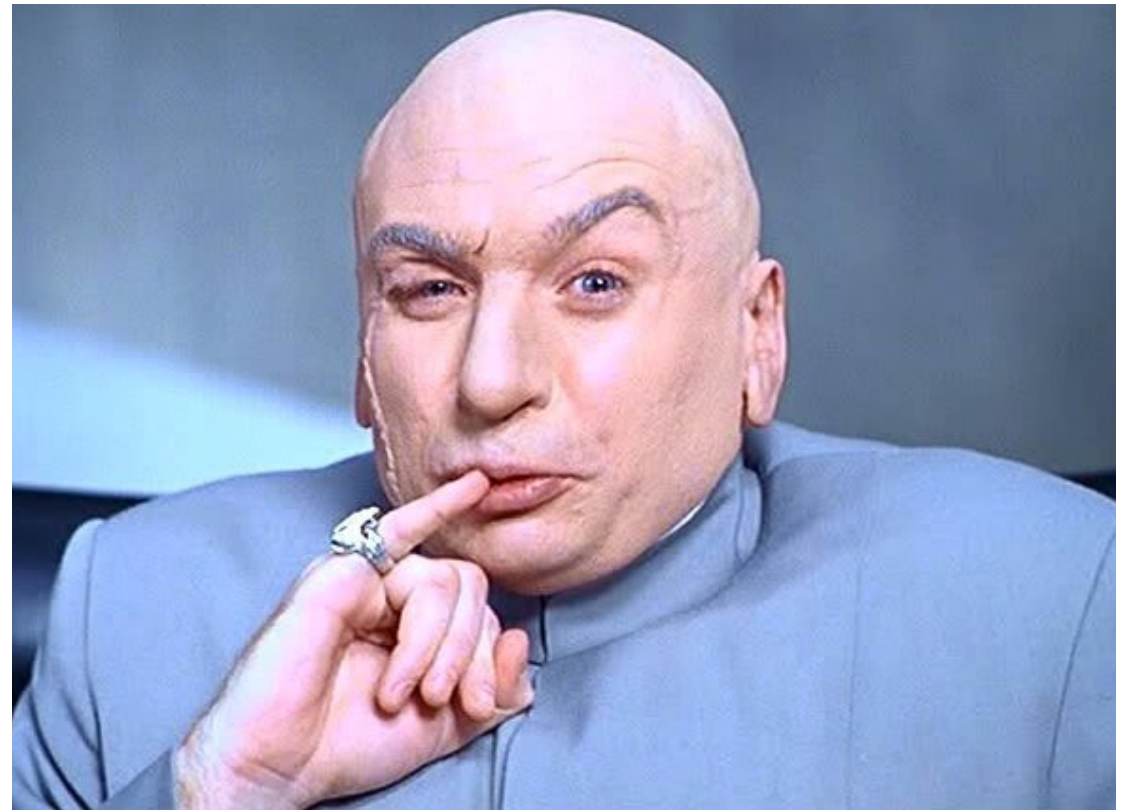
**Observational Studies vs. Experiments**

**Random Sampling vs. Random Assignment**

# WHO WILL WIN THE LAST BANANA?

The Last Banana

# **CAN YOU TACO TONGUE OR EVIL EYEBROW?**



**[www.tinyurl.com/tacotongue](http://www.tinyurl.com/tacotongue)**

# **SAT PRACTICE QUESTIONS**

**Work alone on the problems. (4 minutes)**

- **If you finish early, try to write another question assessing the same standard.**

**Discuss with a neighbor. (4 minutes)**

- **How would you students do with these questions now? After these lessons?**
- **What will students struggle with?**

# SUMMARY

**How were these lessons different from a traditional math lesson?**

**Big Ideas:**

- Accessibility
- Context and relevance
- Experience first, formalize later
- Flexible thinking

# **EXPERIENCE FIRST, FORMALIZE LATER**

- **Engaging context**
- **Address learning targets**
- **Low floor, high ceiling**
- **Math dial**
- **Scaffolding and linking questions**
- **Concrete to conceptual**

**CANDY GRAB  
ENTER YOUR DATA**

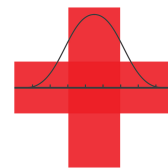
**[www.tinyurl.com/PasadenaCandy](http://www.tinyurl.com/PasadenaCandy)**

# RESOURCES

To get digital copies of all handouts, go to [TheStatsMedic.com/Pasadena2020](https://TheStatsMedic.com/Pasadena2020).

## Contact:

- Email: [Lindsey@StatsMedic.com](mailto:Lindsey@StatsMedic.com)
- Website: [StatsMedic.com](https://StatsMedic.com)
- Twitter: [@TheStatsMedic](https://twitter.com/TheStatsMedic)
- Facebook: [TheStatsMedic](https://www.facebook.com/TheStatsMedic)



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