

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Block: \_\_\_\_\_

## Food Theory: How to SURVIVE Spicy Food! (Hot Ones Challenge)

(Source: The Food Theorists, Oct 1 2020 [https://www.youtube.com/watch?v=v0So51Q6GLg&ab\\_channel=TheFoodTheorists](https://www.youtube.com/watch?v=v0So51Q6GLg&ab_channel=TheFoodTheorists))

Answer the following questions in full sentences, except where otherwise indicated. Disclaimer: The use of alcohol in the video was the choice of the video creators: do not drink alcohol if you are underage.

**1. What is the purpose or research question of this episode? (2:10)**

**2. Fill in the blanks to summarize MatPat's research about spiciness and spice chasers. (3:10)**

Spiciness is due to a chemical called \_\_\_\_\_ which attaches to \_\_\_\_\_ receptors on your tongue which detect spice, \_\_\_\_\_, and heat. You also have TRPV1 receptors all along your \_\_\_\_\_ tract. The more capsaicin a pepper has, the more TRPV1 it will activate, and the spicier the pepper will taste. The spiciness of peppers is measured using the \_\_\_\_\_ Scale using SHU (Scoville Heat Units). Bell Peppers have 0 SHUs; jalapenos have 800 SHUs; and the Moruga Scorpion pepper has \_\_\_\_\_ SHUs.

**3. What was the independent variable? How do you know?**

**4. What 'versions' of the independent variable did they try? (Point form ok)**

**5. What was the dependent variable? How do you know?**

**6. How did they 'measure' the dependent variable?**

**7. At 13:20, MatPat says this about the effectiveness of bread: "It's not doing anything. It's actually less effective than water, so I would say this is, like, D."**

**Use this quote to explain why control groups are necessary in good scientific experiments.**

**8. How would you make this experiment better? Suggest at least two ways.**

- How to stay cool while eating hot wings by testing the best antidotes the internet has to offer?

Capsaicin, TRPV1, gastrointestinal, Scoville, 1.2million