

# The Chemistry of Cooking

The Disney+ logo is displayed on a dark blue rectangular background. The word "Disney" is in its signature script, and the "+" is a simple white cross. A blue arc is positioned above the "+" symbol.The Netflix logo is shown in its characteristic red, bold, sans-serif font on a black rectangular background.

2°-3° Bilingual Physics  
With Olivia Gillespie

Speaking in Pairs (5')

What is a chemical reaction?

Do we see chemical reactions when we cook?



# (2º - 3º) Physical & Chemical Changes

<https://www.youtube.com/watch?v=x49BtB5dOwg>

PHYSICAL CHANGES – 0' 52''

CHEMICAL CHANGES – 3' 09''

DIFFERENCES – 4' 15''

EXTRA Chemical Reactions in Spanish

<https://www.youtube.com/watch?v=OU1KswXaJhA>

(3º) With a partner, create and write a short definition for chemical reaction in English (5')

# Definition

Chemical reaction: a process during which the molecular structure of a substance changes.

Reacción química: un proceso en el cual una sustancia se transforma, cambiando su estructura molecular.

**(2º)Disney+**

**Eddie's Million Dollar Cook-Off**

Viewing Scenes:

1. 24:50-27:27
2. 57:38-58:55

# (2º)Disney+ Eddie's Million Dollar Cook-Off

Can we see a chemical in the first scene  
(24:50-27:27)?

Why or why not? (3 minutes)



Can we see a chemical reaction in the second scene  
(57:38-58:55)?

Why or why not? (3 minutes)



# (2º) Create your own chemical reaction!

In groups of 3 or 4 people, create two recipes that require chemical reactions.

Write all the ingredients and all the steps to make the food.

Explain each instance of a chemical reaction.



## EXAMPLE

### MINI PIZZAS

**INGREDIENTS: FRENCH BREAD, MOZZARELLA CHEESE, TOMATO SAUCE, PESTO, CHOPPED PEPPERONI, CHOPPED GREEN PEPPERS**

- 1. Cut bread in half**
- 2. Spread the pesto on the two halves of bread**
- 3. Spread the tomato sauce over the halves of bread**
- 4. Sprinkle pepperoni and green pepper over each half.**
- 5. Sprinkle cheese over each half.**
- 6. Bake in oven at 190 degrees for twelve minutes.**
- 7. Remove from oven and cut into squares.**
- 8. Enjoy!**

**There is one chemical reaction in step 6, when the ingredients are cooked and change form.**

### (3º) Chemical Reactions on Netflix *Street Food: Buenos Aires, Argentina*

Street Food (TV series) is an American documentary that premiered on Netflix on April 26, 2019. It explores street food around the world.





(3') With a partner,  
talk about where you  
see chemical  
reactions.

(00:00-04:44)



(3') Ask your partner  
how many chemical  
processes they think  
the pizza passes  
through.

(27:26-24:56)



(3') Do you and your partner think that chemical reactions helped Rubén create his business?

(18:30-16:00)



**RUBÉN BATALLA**  
EL PUESTO DE RUBEN

(5') What typical, delicious Spanish foods DO NOT not require a chemical reaction?

