

Names of group members:

Homeroom:

### **Cracking the Genetic Code**

LO: Design an experiment to help crack the genetic code! SLE: Work collaboratively.

A first step toward cracking the genetic code was led by Marshall Nirenberg (pictured at right with lab technicians Norma Zabriskie Heaton and Theresa Caryk) in 1960-1961.



*image from caroltorgan.com*

1. In your own words, briefly describe the first experiment.
2. What could be concluded from Nirenberg's initial results?
3. State another aspect of the genetic code that was still unclear after the Nirenberg's first experiment, but that could be resolved by feeding other RNA molecules into their translation system.
4. It is 1961. You are now working with Nirenberg on cracking the genetic code. Below, describe or show one or more RNA molecules to be fed into their translation system.
5. Results of translation (to be filled in by your instructor):
6. Your conclusion, based on these results: