08. When Dumplings Rise
OPPOSITION
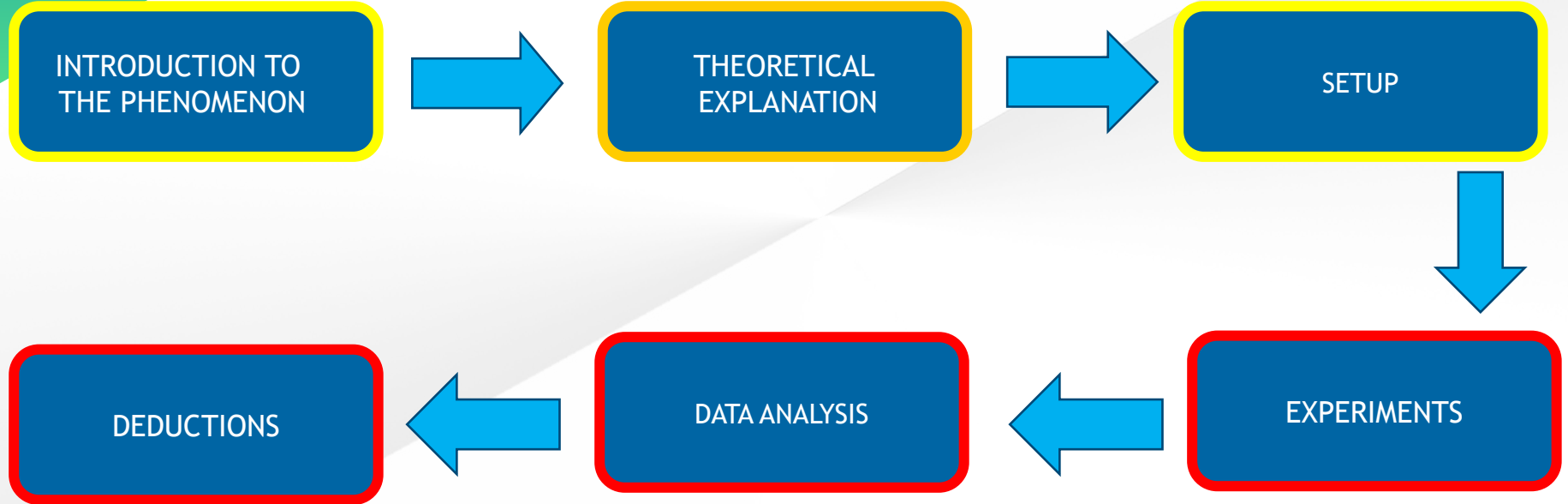
Greece - Alliance
Makrina Telloglou

I.Y.N.T. 2021

General outline of the presentation

INTRODUCTION TO THE PHENOMENON → THEORETICAL EXPLANATION → SETUP

↓

EXPERIMENTS ← DATA ANALYSIS ← DEDUCTIONS

🔴 Needs improvement   🟡 Average   🟢 Good

📖 Theory

Pros:

1. Good explanation of the fundamental role of density
2. Interesting approach of the problem
3. Visual aid that support the theoretical background.

Cons:

1. The theory was poor. Specifically, she did not include a "predictive" theory that refers to any hypothesis.
2. Did not specify what are dumplings (lack of definitions)
3. Didn't understand correctly why there is a difference between floating time and cooking time.

Experiment & Results

Pros:

1. Included a table that refers to the experimental results.
2. Experiments confirmed the initial theory.
3. Tested the significant parameter of time.

Cons:

1. Not enough parameters (such as the content of the dumplings)
2. Did not include a hypothesis based on the theory.
3. Did not check the temperature of the water.
4. Did not ensure that all of the dumplings were of the same size.
5. Did not refer to the possible errors of the experiments.
6. Inserted a graph without the error estimation.

Suggestions for further Improvement

1. She could check more fillings in the dumplings and observe whether all of them are ready 1 minute after floating.
2. Make the dumplings dough
3. Change the volume and the mass of the dumplings and observe differences on the floating time and whether all the dumplings are ready in the same time.
4. Measure the water temperature by using an arduino sensor
5. Add error bars in her results

Discussion

Greece - Alliance