STUDENT MATERIALS

PART 1 – CREATE A TWO-WAY TABLE

Michaela made a claim that middle school helps students decide what they want to be when they grow up. She decided to test her claim by surveying random students at her school.

Here are the questions she asked them:

- What grade are you in?
- Do you know what you want to be when you grow up?

Use the facts below to complete Michaela's two-way table.

- Michaela surveyed a total of 35 Grade 6 students.
- Of all of the students Michaela surveyed, 90 knew what they wanted to be when they grew up.
- Of the Grade 7 students Michaela surveyed, 30 knew what they wanted to be when they grew up and 15 did not.
- Of the Grade 8 students Michaela surveyed, 40 knew what they wanted to be when they grew up.
- In all, Michaela surveyed 130 students

	Know what they want to be	Do NOT know what they want to be	TOTAL
Grade 6 Students	20	15	35
Grade 7 Students	30	15	45
Grade 8 Students	40	10	50
TOTAL	90	40	130

PART 2 – ANALYZE A TWO-WAY TABLE

Mable was at a football party when the University of Michigan was playing Michigan State. Before the game, each fan completed a survey and answered these questions:

- Are you a Michigan State fan or a University of Michigan fan?
- Do you like the color green or blue better?

Mable created a two-way table of the results.

	Prefers BLUE	Prefers GREEN
University of Michigan Fan	120	15
Michigan State University Fan	12	80

Answer the following questions based on Mable's data. **Provide clear mathematical evidence to support your claims in your responses.**

1. Each fan will receive a cookie with the school's mascot. What percent of the cookies that are ordered should be Michigan State University cookies? Remember to support your claim.

total of 132 cookies

92/227 should be MSU cookies

↓

= about 9% of the cookies

2. If Mable chose a person at random, which person is Mable more likely to find at the party?

   - A University of Michigan fan who prefers green

   or

   - A Michigan State University fan who prefers blue

   Mable is more likely to find

   ☒ A University of Michigan fan who prefers green

   ☐ A Michigan State University fan who prefers blue

Support for your claim:

135/227 People are University of Michigan fans

92/227 People are MSU fans

3. Ten (10) more University of Michigan fans (who prefer blue) showed up late to the party. How many total people were at the football party after the late fans arrived?

237 People were at the Football Party

PART 3 – REFLECTION

Respond to each of the following reflection questions:

1. What strategies did you use, if any, to check that the two-way table you completed in Part 1 was correct?

I started by finding the total amount of people surveyed, then I found out how many were University of Michigan fans. I found the percent and then when 10 more fans came to the party I added up 10 to my total and thats how I found the total number of people at the party.

2. What did you find challenging or difficult about the assessment items? How did you overcome those challenges?

I struggled on finding the percent for cookies but i tried a couple of strategies i remembered from previous lessons.