Name:_____ **Block:**_____ **Date:**_____

Two-Way Data Tables – Day 1

Vocabulary Word	Definition	Examples
Categorical Data		
Numerical Data		
Frequency		

Students Playing Instruments and Students Playing Sports

Predict:
Students who play an instrument are _____(more/less) likely to also play a sport because…

Take the survey using the QR code on the board.

Using the data from your survey, answering the questions:

- Do you play a sport?
- Do you play a musical instrument?

Fill in the values on the table below:

	Plays Instrument	Does Not play instrument	
Play Sport			
Does Not Play Sport			

When completing the following questions, provide numerical evidence used to formulate your answer.

1) What is the frequency of people who play a sport?

2) How many people are in the class?

3) What is the frequency of people who play a sport AND play an instrument?

4) What is the frequency of people who play an instrument?

Tree Type & Height - Analyzing data in two-way tables

Predict:
Do you think deciduous & evergreen trees have different heights in general? What evidence could you give as support?

An ecologist is studying a forest with a mixture of tree types. Since the average tree height in the area is 40 feet, he measures the height of the tree against that. He also records the type of tree. The table below shows the types & heights of the trees measured

	Under 40 feet	Exactly 40 feet	Taller than 40 feet
Deciduous	42	4	30
Evergreen	42	2	15

A. Use the table above. Do you think each statement is true or false?

1. Deciduous & Evergreen trees are equally likely to be under 40 feet.

True False

2. Deciduous trees are more likely than Evergreen trees to be exactly 40 feet.

True False

3. Deciduous trees are more likely to be taller than 40 feet.

True False

4. Evergreen trees are only half as likely as deciduous trees to be taller than 40 feet.

True False

What might be misleading or confusing about the way data is presented in this table?

B. Study the table of tree types and heights.

Copy and complete this extended table.

	Under 40 feet	Exactly 40 feet	Taller than 40 feet	**Total**
Deciduous	42	4	30	
Evergreen	42	2	15	
Total				

Why are the category totals important?

C. One way to compare groups with unequal numbers is to find fractions or percentages.

Complete the table below to show the fractions or percentages by row for each category.

	Under 40 feet	Exactly 40 feet	Taller than 40 feet	**Total**
Deciduous	$\frac{42}{76} = \frac{21}{38} = 55.2\%$			
Evergreen				

Use the values from the table above to revisit your answers to Question A. Justify your answer.

1. Deciduous & Evergreen trees are equally likely to be under 40 feet. True or False?

2. Deciduous trees are more likely than Evergreen trees to be exactly 40 feet. True or False?

3. Deciduous trees are more likely to be taller than 40 feet. True or False?

4. Evergreen trees are only half as likely as deciduous trees to be taller than 40 feet. True or False?