

UNIT 31: CREATING CONTENT IN GOOGLE SHEETS LESSON 4: USING A FORMULA

LESSON OVERVIEW

Using a Formula is like solving a math problem in a cell.

Time: ~30 minutes

OBJECTIVE

Student is able to create content in Google Sheets.

PRINT PREPARATION

1. Print this lesson's Dollar Tracker.
2. Review sequence of activities in lesson.
3. Learn which supplements you will use.
4. Print/Copy/Laminate materials that fit your student's needs.
5. Refer to your Level 2 Guide to read about effective practices.

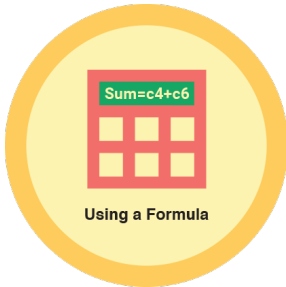
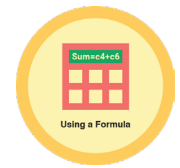
ONLINE REVIEW

1. Sign into Digitability
2. Click **LESSONS** tab
3. Select **Level 3 - Tech-savvy Ambassador**
4. Select **Unit 31**
5. Select **Lesson 4 - Using a Formula**

WORKPLACE BEHAVIOR FOCUS FOR THIS UNIT



Using the Dollar Tracker, select two additional behaviors that you will target throughout the course of this unit. Always include participation/contribution in addition to the two new behaviors.



LESSON PLAN

WARM UP



1. Write the following on the board, leaving a blank space for the words **“data,” “cell,” “double-click,”** and **“Enter Button.”**

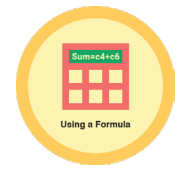
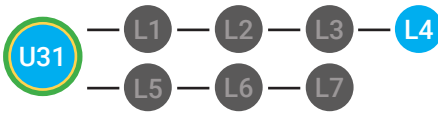
a. To add ____ to a ____, first _____ the cell. Then, type the data and press the _____.

2. Have a student come up to the board to fill in the correct answer.

Repeat the process to ensure all students get a chance to participate and earn a participation dollar.



3. Distribute **31.IMAGE.IEC** to students. See **DIFFERENTIATION** for this activity to identify supplements needed for your students.



DIFFERENTIATION

- T1** Writes response on board
- T2** Writes response on board with assistance from a Tier 1 partner or writes answer in notebook
- T3** Writes response on board with assistance from an adult or points to **Image Exchange Cards** [31.IMAGE.IEC]



4. Give immediate feedback to each student (see below). Record Workplace Behavior earnings and/or spending on the **Dollar Earnings Tracker**. [31.4.DollarTracker]

[NAME] + [BEHAVIOR] + [CONSEQUENCE] + [REPLACEMENT BEHAVIOR/REINFORCEMENT]



Pro tip: Remember Rule #3 Avoid a power struggle to stay focused on instruction. We are helping students learn to self-regulate. Therefore, it is important to give students time to opt in or identify their replacement behavior. If a student is not following directions, give them one minute before taking additional dollars.

Behaviors	Name								
Successful Participation/Contributing Sharing/Helping/Convincing Greeting a Guest Following Directions/Staying on Task Encouraging/Complimenting									
Problematic Off-Task Off-Topic/Inappropriate Comment Disrespect/Teasing Complaining/Whining Arguing Interrupting UMAPA									

+\$ SUCCESSFUL

"Nice job [Behavior], Marcus. You earned a [Behavior] dollar."

-\$ PROBLEMATIC

"Marcus, you [Behavior]. [Behavior] cost \$1. Next time, [Replacement Behavior] to earn a \$1."

- Participation/Contribution
- Sharing/Helping
- Greeting a Guest
- Following Directions/Staying on Task
- Encouraging

- Off-task
- Off-topic/Inappropriate Comment
- Disrespect/Teasing
- Complaining/Whining
- Interrupting
- UMAPA
- Arguing

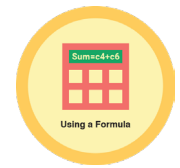
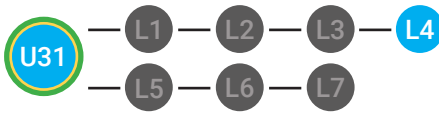
GUIDED WATCHING



Call out earnings to the class, "[Student] has earned x dollars for participating. [Student] has earned x dollars for participating and sharing. [Student] has earned x dollars..."




Pro tip: Build confidence in your students Identify students who have not earned money and focus on engaging them. Use differentiation tools if reluctant to participate i.e. have them point to or write down their answers. EVERY student should be earning money.



1. Ask, *“For a participation dollar, who can tell me the name of our next badge?”*

Answer: Using a Formula

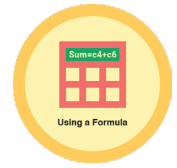
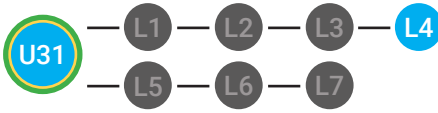


2. Distribute **31.BADGE** to students. See  **DIFFERENTIATION** for this activity to identify supplements needed for your students.



DIFFERENTIATION

- T1** On-topic shared verbal response
- T2** Writes down badge name or walks up to point to badge
- T3** Uses **Badge Board** [31.BADGE] for this unit



3. Give immediate feedback to each student (see below). Record Workplace Behavior earnings and/or spending on the **Dollar Earnings Tracker**. [31.4.DollarTracker]

[NAME] + [BEHAVIOR] + [CONSEQUENCE] + [REPLACEMENT BEHAVIOR/REINFORCEMENT]

<p>+\$ SUCCESSFUL</p> <p><i>"Nice job [Behavior], Marcus. You earned a [Behavior] dollar."</i></p>	<p>-\$ PROBLEMATIC</p> <p><i>"Marcus, you [Behavior]. [Behavior]s cost \$1. Next time, [Replacement Behavior] to earn a \$1."</i></p>
---	--



Pro tip: Remember Rule #3 Avoid a power struggle to stay focused on instruction. We are helping students learn to self-regulate. Therefore, it is important to give students time to opt in or identify their replacement behavior. If a student is not following directions, give them one minute before taking additional dollars.

- Participation/Contribution
- Sharing/Helping
- Greeting a Guest
- Following Directions/Staying on Task
- Encouraging

- Off-task
- Off-topic/Inappropriate Comment
- Disrespect/Teasing
- Complaining/Whining
- Interrupting
- UMAPA
- Arguing

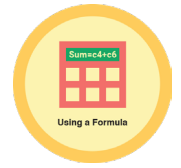
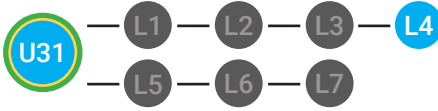



4. Bring attention to screen, *"Let's watch this lesson. I know that [student's name] is actively watching because he has his eyes on the screen, and he is actively listening by giving a thumbs up when he hears the word **Formula**."*

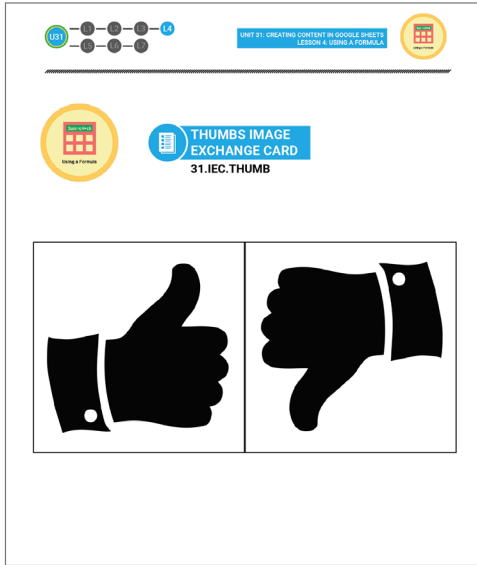
5. Ask students to give a thumbs up every time they hear and/or see the word **Formula** in the video.



6. Play video.

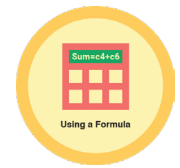
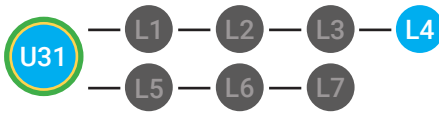


7. Distribute **31.IEC.THUMB** to students. See  **DIFFERENTIATION** for this activity to identify supplements needed for your students.



DIFFERENTIATION

- T1** Puts thumbs up
- T2** Uses **Thumbs Image Exchange Card** [31.IEC.THUMB]
- T3** Uses **Thumbs Image Exchange Card** [31.IEC.THUMB]



8. Give immediate feedback to each student (see below). Record Workplace Behavior earnings and/or spending on the **Dollar Earnings Tracker**. [31.4.DollarTracker]

[NAME] + [BEHAVIOR] + [CONSEQUENCE] + [REPLACEMENT BEHAVIOR/REINFORCEMENT]

+ \$ SUCCESSFUL	- \$ PROBLEMATIC
<p><i>"Nice job [Behavior], Marcus. You earned a [Behavior] dollar."</i></p>	<p><i>"Marcus, you [Behavior]. [Behavior]s cost \$1. Next time, [Replacement Behavior] to earn a \$1."</i></p>

- Participation/Contribution
- Sharing/Helping
- Greeting a Guest
- Following Directions/Staying on Task
- Encouraging

- Off-task
- Off-topic/Inappropriate Comment
- Disrespect/Teasing
- Complaining/Whining
- Interrupting
- UMAPA
- Arguing

INFORMAL ASSESSMENT



1. Ask, *"For a participation dollar, who can tell me what using a Formula is similar to?"*

Possible Answers: solving a math problem

Write the term and definition on the board after student responses.



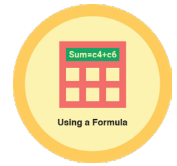
2. Ask, *"For a participation dollar, can you use the name of the cell in a Formula?"*



Pro tip: Use content domain to develop expressive communication. If a student gives a one-word answer or a fragment, require a complete sentence before awarding the \$1. Then, use positive narration to reinforce the student's expressive communication:

"I love how you used a complete sentence for your answer. Nice job earning a dollar!"

"Yes, nice job participating, [student]! You earned a participation dollar."



3. Distribute **31.IMAGE.IEC** or **Yes or No Image Exchange Cards** **31.IEC.Y/N** to students. See **DIFFERENTIATION** for this activity to identify supplements needed for your students.

31.IEC.IMAGE

Data

A1
2B
C3

Cell

Double-Click The Cell

Math Problem

+

-

×

÷

YES OR NO IMAGE EXCHANGE CARD

31.IEC.Y/N

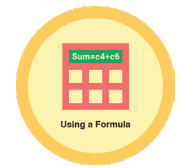
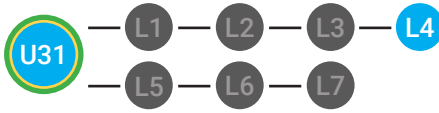
Yes

No



DIFFERENTIATION

- T1** On-topic shared verbal response
- T2** Writes response down in notebook OR rephrase prompt to a **yes or no** question
- T3** Distribute **Yes or No Image Exchange Card** [31.IEC.Y/N] for rephrased question



4. Give immediate feedback to each student (see below). Record Workplace Behavior earnings and/or spending on the **Dollar Earnings Tracker**. [31.4.DollarTracker]



Pro tip: Stick to the script!
Help your students develop self-regulation strategies. Do not give lengthy explanations for behavior. Using clear language formulas helps students identify the workplace behavioral norm AND the optimal replacement behavior.

[NAME] + [BEHAVIOR] + [CONSEQUENCE] + [REPLACEMENT BEHAVIOR/REINFORCEMENT]

+\$ SUCCESSFUL	-\$ PROBLEMATIC
<p><i>"Nice job [Behavior], Marcus. You earned a [Behavior] dollar."</i></p>	<p><i>"Marcus, you [Behavior]. [Behavior]s cost \$1. Next time, [Replacement Behavior] to earn a \$1."</i></p>

- Participation/Contribution
- Sharing/Helping
- Greeting a Guest
- Following Directions/Staying on Task
- Encouraging

- Off-task
- Off-topic/Inappropriate Comment
- Disrespect/Teasing
- Complaining/Whining
- Interrupting
- UMAPA
- Arguing

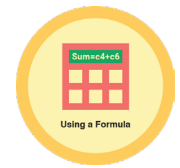
PLAY ACTIVITY VIDEO



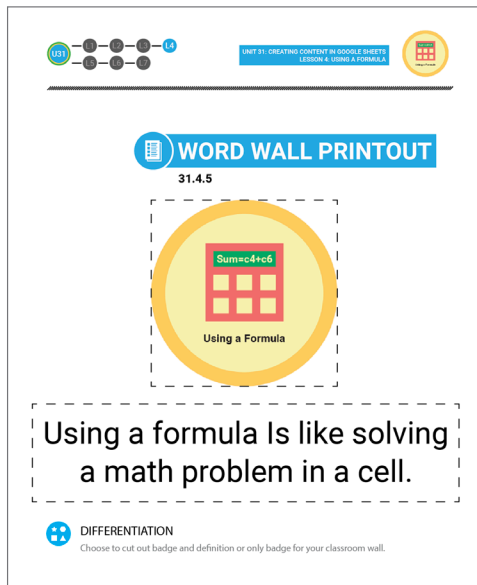
1. Ask the class, *"Who would like to unlock the Using a Formula Badge for \$1?"*

Click Activity Button to Play Activity Video

2. Student discusses with class to choose the correct answer.
 - a. If student chooses correct answer, have student or whole class dance.
 - b. If student chooses incorrect answer, repeat Step 2 until student unlocks the badge.

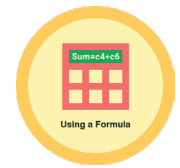
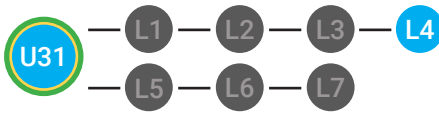


3. Distribute and cut out **Word Wall Printout 31.4.5** Students that unlocked the badge will place the Using a Formula printout on the classroom's word wall. See **DIFFERENTIATION** for this activity to identify supplements needed for your students.



DIFFERENTIATION

- T1** Student will use verbal prompting to unlock the badge with the class.
- T2** Student will use verbal prompting and hand signals to unlock the badge with the class.
- T3** Student will use hand signals, pointing, prompting levels or adult/Tier 1 partner support to unlock the badge with the class.



4. Give immediate feedback to each student (see below). Record Workplace Behavior earnings and/or spending on the **Dollar Earnings Tracker**. [31.4.DollarTracker]

[NAME] + [BEHAVIOR] + [CONSEQUENCE] + [REPLACEMENT BEHAVIOR/REINFORCEMENT]

+\$ SUCCESSFUL

"Nice job [Behavior], Marcus. You earned a [Behavior] dollar."

-\$ PROBLEMATIC


"Marcus, you [Behavior]. [Behavior]s cost \$1. Next time, [Replacement Behavior] to earn a \$1."

Participation/Contribution
Sharing/Helping
Greeting a Guest
Following Directions/Staying on Task
Encouraging

Off-task
Off-topic/Inappropriate Comment
Disrespect/Teasing
Complaining/Whining
Interrupting
UMAPA
Arguing

ASSESSMENT/EXIT TICKET



1. Distribute the **Using a Formula Exit Ticket 31.4.6** to students. See  **DIFFERENTIATION** for this activity to identify supplements needed for your students.

T1 FIND THE FORMULA
EXIT TICKET | 31.4.6.1

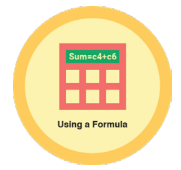
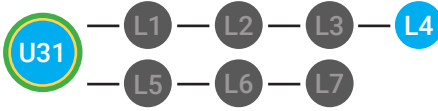
Directions: Circle the formula in this spreadsheet. Highlight the cells names mentioned in this formula.

Apples	Pears	Oranges	Bananas	Total fruits
10	7	5	10	
Carrots	Potatoes	Kale	Tomatoes	Total Vegetables
7	12	20	6	

T3 TRACE 'N' LEARN
EXIT TICKET | 31.4.6.3

Using a Formula Bar

Using a formula is like solving a math problem in a cell.



DIFFERENTIATION

- T1** Using Tier 1 **Find the Formula** Exit Ticket [31.4.6.1], student circles the Formula in this spreadsheet and highlights the cell name mentioned in this Formula.
- T2** Use **Find the Formula** Exit Ticket [31.4.6.1], student circles the Formula in this spreadsheet and highlights the cell name mentioned in this Formula.
- T3** Student completes **Trace 'n' Learn Card** Exit Ticket [31.4.6.3].



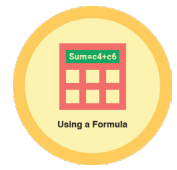
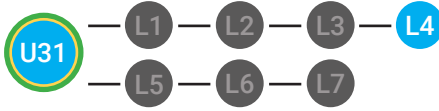
2. Give immediate feedback to each student (see below). Record Workplace Behavior earnings and/or spending on the **Dollar Earnings Tracker**. [31.4.DollarTracker]

[NAME] + [BEHAVIOR] + [CONSEQUENCE] + [REPLACEMENT BEHAVIOR/REINFORCEMENT]

+ \$ SUCCESSFUL	- \$ PROBLEMATIC
<p><i>"Nice job [Behavior], Marcus. You earned a [Behavior] dollar."</i></p>	<p><i>"Marcus, you [Behavior]. [Behavior]s cost \$1. Next time, [Replacement Behavior] to earn a \$1."</i></p>

- Participation/Contribution
- Sharing/Helping
- Greeting a Guest
- Following Directions/Staying on Task
- Encouraging

- Off-task
- Off-topic/Inappropriate Comment
- Disrespect/Teasing
- Complaining/Whining
- Interrupting
- UMAPA
- Arguing



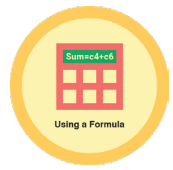
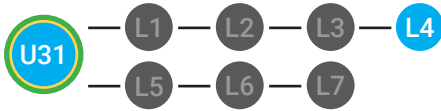
IMMEDIATE FEEDBACK/NEXT STEPS

1. Read off Dollar Earnings Tracker and announce how many dollars each student earned or spent during the lesson.
2. Students will fill in their dollar earnings from the lesson using their **My Digitability Earnings sheet**. Have students staple this sheet into their notebooks so they can use it for the entire unit.
3. If time permits, you can either have students log into their student accounts for independent practice or you can continue on to the next lesson plan.



DIFFERENTIATION

- T1** Login independently using password cards.
- T2** Login independently using password card with the help from a Tier 1 partner for any required troubleshooting.
- T3** Teacher or Tier 1 assistance to help student login using their password card.



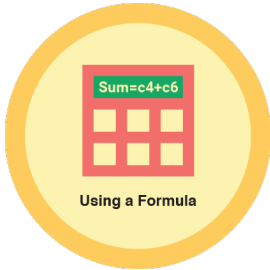
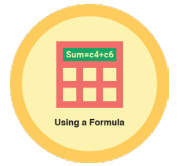
Behaviors

Name

- Successful**
- Participation/
Contributing
- Sharing/Helping/
Collaborating
- Greeting a Guest
- Following Directions/
Staying on Task
- Encouraging/
Complementing

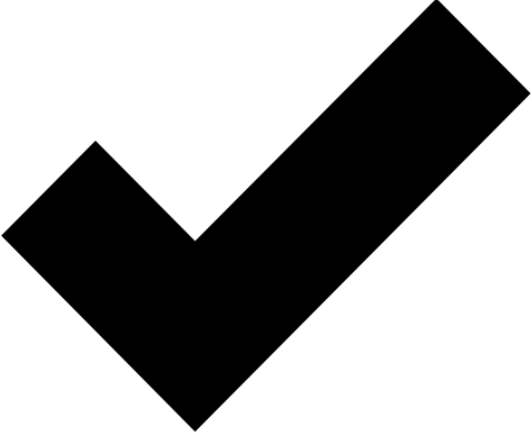
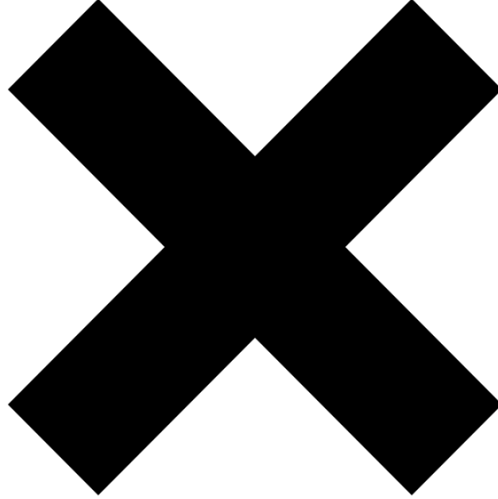
- Problematic**
- Off Task
- Off-Topic/
Inappropriate
Comment
- Disrespect/Teasing
- Complaining/Whining
- Arguing
- Interrupting
- UMAPA

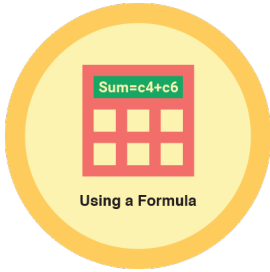
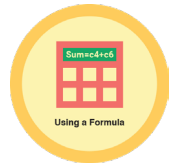
	EX: Sam					
Participation/ Contributing						
Sharing/Helping/ Collaborating						
Greeting a Guest						
Following Directions/ Staying on Task						
Encouraging/ Complementing						
Off Task						
Off-Topic/ Inappropriate Comment						
Disrespect/Teasing						
Complaining/Whining						
Arguing						
Interrupting						
UMAPA						




 **YES OR NO IMAGE EXCHANGE CARD**

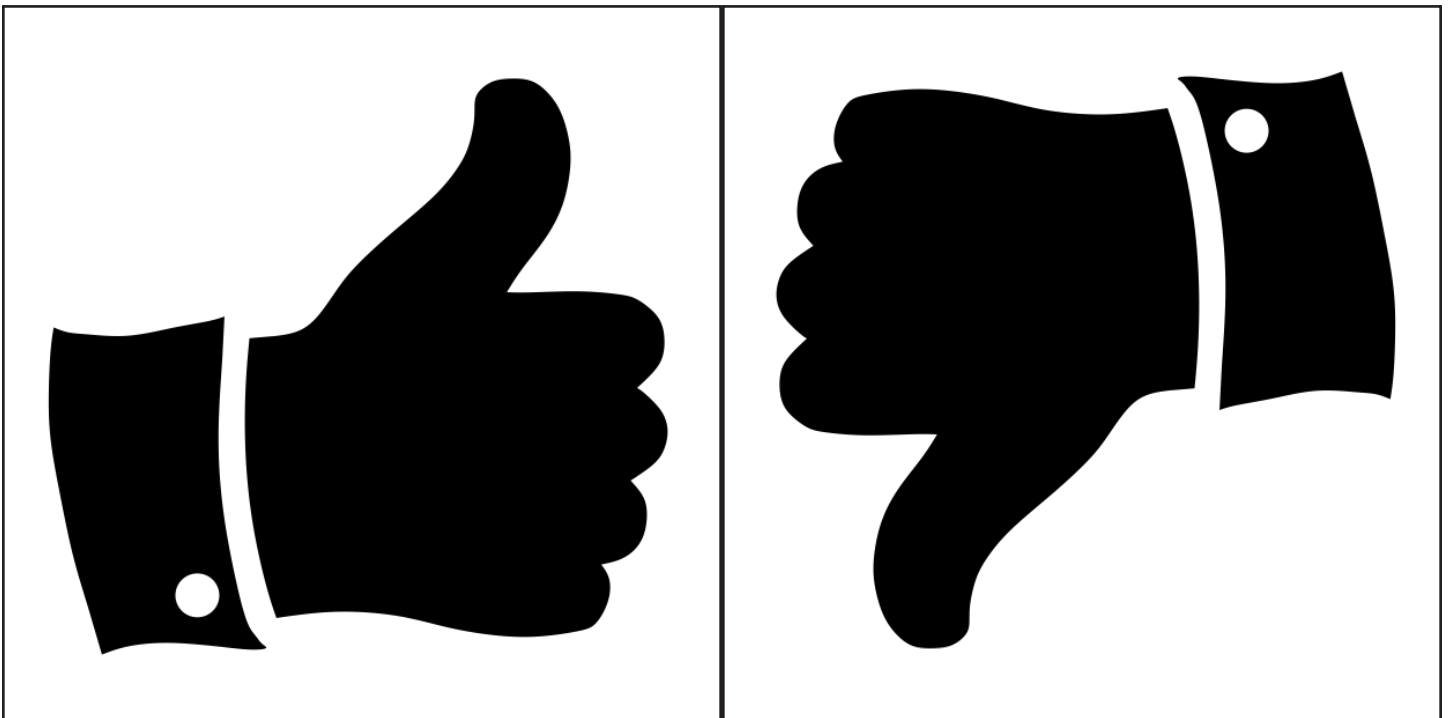
31.IEC.Y/N

 <p>Yes</p>	 <p>No</p>
--	--



 **THUMBS IMAGE
EXCHANGE CARD**

31.IEC.THUMB



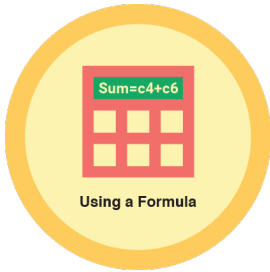
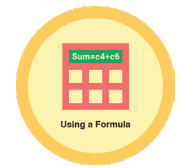
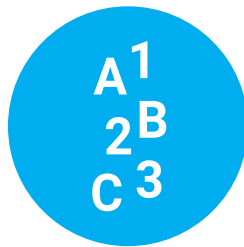


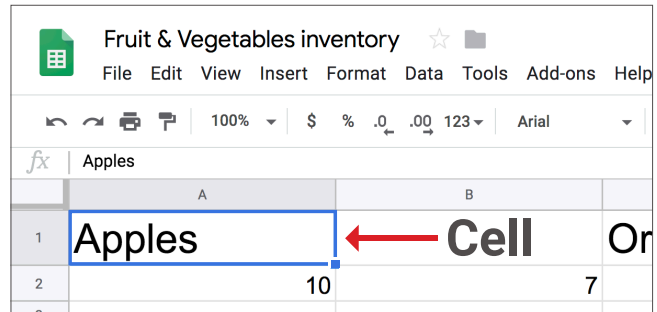
IMAGE EXCHANGE CARDS

31.IEC.IMAGE

Data



Cell

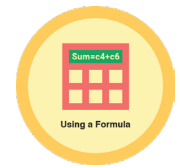


Double-Click the Cell



Math Problem





31.BADGE

 A circular badge with a red border and a light orange background. It features a green Google Sheets icon with a grid pattern above it.

**Accessing
Google Sheets**

 A circular badge with a yellow border and a light yellow background. It shows a green text input field with 'Name' and a yellow toolbar with icons for bold, italic, underline, and text color.

**Naming Your
Google Sheets File**

 A circular badge with a red border and a light orange background. It displays a green grid with a yellow cell containing the text 'Data1'.

Adding Data to a Cell

 A circular badge with a yellow border and a light yellow background. It shows a red grid with a green cell containing the formula 'Sum=c4+c6'.

Using a Formula

 A circular badge with a red border and a light orange background. It features a yellow grid with a green sheet icon overlaid on it.

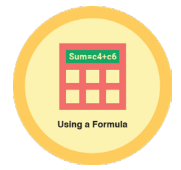
Adding Multiple Sheets

 A circular badge with a yellow border and a light yellow background. It shows a green Google Sheets icon in the center, surrounded by two red person icons and yellow curved arrows indicating collaboration.

**Collaborating in Your
Google Sheets**

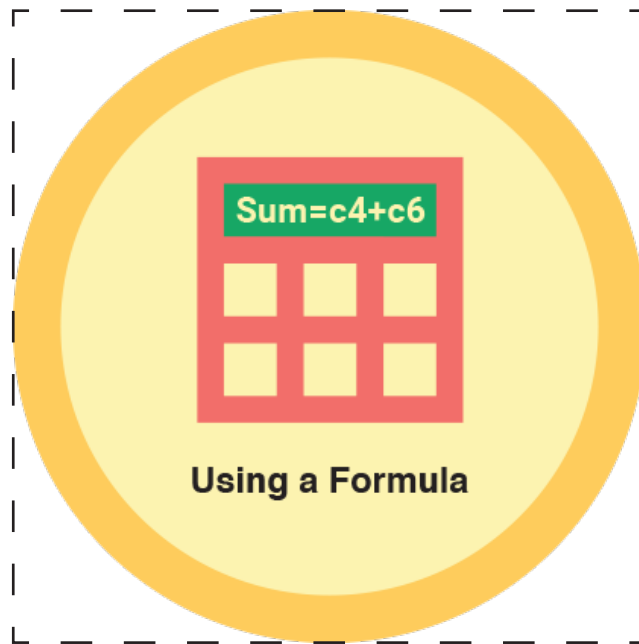
 A circular badge with a red border and a light orange background. It features a white graduation cap icon, a white figure holding a green Google Sheets icon, and the text 'MASTER!' on the figure's chest.

**Google Sheets
Master Badge**



WORD WALL PRINTOUT

31.4.5

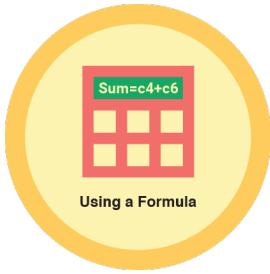
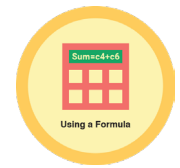
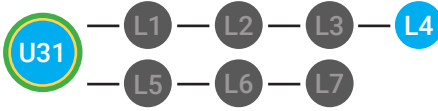


Using a Formula Is like solving a math problem in a cell.



DIFFERENTIATION

Choose to cut out badge and definition or only badge for your classroom wall.

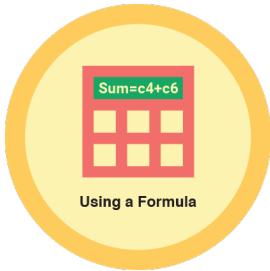
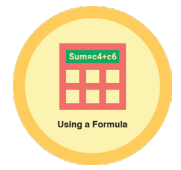


T1 FIND THE FORMULA

EXIT TICKET | 31.4.6.1

Directions: Circle the Formula in this spreadsheet. Highlight the cell name mentioned in this Formula.

Fruit & Vegetables inventory						
	A	B	C	D	E	F
1	Apples	Pears	Oranges	Bananas	Total fruits	
2		10	7	9	10	36
3						
4						
5						
6	Carrots	Potatos	Kale	Tomatoes	Total Vegetables	
7		7	12	20	6	45
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						

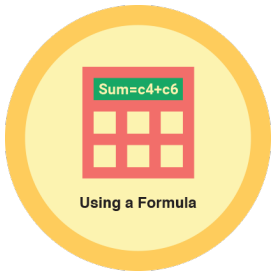
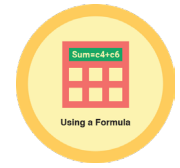


T3 TRACE 'N' LEARN

EXIT TICKET | 31.4.6.3

Using a Formula Bar

Using a Formula is like solving a math problem in a cell.



MY DIGITABILITY EARNINGS TRACKER

Unit 31: Creating Content in Google Sheets | 31.4.7

DIRECTIONS: Keep this page safe! After each lesson, mark down the date and the dollars you earned.

Name: _____

	DATE:	DOLLARS EARNED:
LESSON 1: Accessing Google Sheets		
LESSON 2: Naming Your Google Spreadsheet		
LESSON 3: Adding Data To a Cell		
LESSON 4: Using a Formula		
LESSON 5: Adding Multiple Sheets		
LESSON 6: Collaborating in Your Google Sheets		
LESSON 7: Creating Spreadsheet in Google Slides Master Badge		

TOTAL DOLLARS EARNED: