



The Great Fossil Biome Heist

Grade 2 math · Place value, Addition, Subtraction, Skip counting, Missing addends · Reading level grades 5-6

Detective: _____ Date: _____

Someone smashed open the obsidian fossil vault and stole the priceless golden Tyrannosaurus skull!

1. Solve each math problem. The answer is a number, and the letter beside it is what that number stands for.
2. In the clue boxes, write that letter in every box showing the same number, then read the secret clue.
3. Use each clue to cross suspects off the list. The one suspect left at the end is the culprit!

My answer: the rogue block-smasher is _____

Possible suspects

Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	DINO COMPANION	BLOCK GEAR	DOMINANT HAND	HELMET STYLE	TRAP WEAKNESS
Dennis Nedry	Raptor Companion	Redstone Launcher	Left Handed	Iron Helmet	Anvil Traps
Stampy Cat	Triceratops Guard	Slime Boots	Left Handed	Chainmail Hood	Lava Pits
Steve Miner	T-Rex Pet	Netherite Sword	Right Handed	Chainmail Hood	Anvil Traps
Claire Dearing	Triceratops Guard	Netherite Sword	Left Handed	Iron Helmet	Anvil Traps
Ellie Sattler	Triceratops Guard	Netherite Sword	Right Handed	Leather Cap	Lava Pits
Dr Grant	T-Rex Pet	Netherite Sword	Right Handed	Iron Helmet	Cactus Barriers
Kayla Watts	Triceratops Guard	Enchanted Bow	Left Handed	Iron Helmet	Cactus Barriers
Ramsay Cole	Triceratops Guard	Redstone Launcher	Right Handed	Iron Helmet	Lava Pits
Redstone Rick	Stegosaurus Mount	Slime Boots	Left Handed	Iron Helmet	Anvil Traps
Ian Malcolm	Pterodactyl Drone	Redstone Launcher	Right Handed	Iron Helmet	Anvil Traps
Diamond Dan	T-Rex Pet	Netherite Sword	Left Handed	Leather Cap	Lava Pits
Franklin Webb	Triceratops Guard	Enchanted Bow	Right Handed	Leather Cap	Anvil Traps
Sarah Harding	Stegosaurus Mount	Diamond Pickaxe	Left Handed	Chainmail Hood	Cactus Barriers
Captain Spark	Stegosaurus Mount	Slime Boots	Left Handed	Chainmail Hood	Anvil Traps
Jens Bergen	Raptor Companion	Redstone Launcher	Right Handed	Chainmail Hood	Lava Pits
Notch Block	Triceratops Guard	Slime Boots	Right Handed	Iron Helmet	Anvil Traps
Alex Craft	Stegosaurus Mount	Diamond Pickaxe	Left Handed	Chainmail Hood	Lava Pits
Owen Grady	T-Rex Pet	Enchanted Bow	Left Handed	Iron Helmet	Anvil Traps
Henry Wu	Triceratops Guard	Enchanted Bow	Left Handed	Iron Helmet	Anvil Traps
Cubey Chris	T-Rex Pet	Netherite Sword	Left Handed	Leather Cap	Anvil Traps
Eric Kirby	T-Rex Pet	Enchanted Bow	Left Handed	Chainmail Hood	Lava Pits

CLUE 1 Place value

We examined the place value grid on the security terminal at the fossil vault to rule out one piece of gear.

Solve each problem, then write its letter in every clue box that shows the same number.

T																T
76	94	35	42	61	44	44	11	61	43	47	84	35	65	43	84	76
								T								
23	65	35	11	98	35	47	65	76	84	43	35	44	11	23	43	95
																94
																35
																98

What number has 7 tens and 6 ones? → **T**

What number has 2 tens and 3 ones? → **U**

What number has 9 tens and 5 ones? → **C**

What number has 8 tens and 4 ones? → **O**

What number has 9 tens and 4 ones? → **H**

What number has 4 tens and 2 ones? → **V**

What number has 1 ten and 1 one? → **A**

What number has 4 tens and 4 ones? → **L**

What number has 6 tens and 5 ones? → **S**

What number has 3 tens and 5 ones? → **E**

What number has 4 tens and 7 ones? → **D**

What number has 6 tens and 1 one? → **I**

What number has 4 tens and 3 ones? → **N**

What number has 9 tens and 8 ones? → **R**

Scratch space:

CLUE 2 Addition

Adding up all the scattered bone blocks near the biome enclosure gives us a vital clue about the suspect.

Solve each problem, then write its letter in every clue box that shows the same number.

T									T						T				
83	32	73	77	62	77	93	73	98	83	62	77	73	70	83	32	73	91	92	
			T						T										
71	73	67	83	32	39	68	70	83	81	93	92	47	71	81	81	77	73		

$36 + 47 = \square \rightarrow$ T	$49 + 49 = \square \rightarrow$ C	$10 + 22 = \square \rightarrow$ H
$30 + 47 = \square \rightarrow$ S	$33 + 37 = \square \rightarrow$ D	$30 + 17 = \square \rightarrow$ Y
$28 + 34 = \square \rightarrow$ U	$25 + 48 = \square \rightarrow$ E	$42 + 39 = \square \rightarrow$ O
$66 + 27 = \square \rightarrow$ P	$30 + 37 = \square \rightarrow$ F	$36 + 56 = \square \rightarrow$ R
$30 + 41 = \square \rightarrow$ L	$34 + 34 = \square \rightarrow$ N	$15 + 24 = \square \rightarrow$ A
$33 + 58 = \square \rightarrow$ I		

Scratch space:

CLUE 3

Subtraction

Subtracting the destroyed obsidian blocks from the total vault wall reveals evidence about their defense.

Solve each problem, then write its letter in every clue box that shows the same number.

T												T					
24	29	85	31	70	85	80	21	50	80	31	31	24	86	41	41	85	60

											T					
68	49	29	85	80	46	49	80	70	46	32	47	24	62	80	41	31

$48 - 24 = \square \rightarrow \boxed{\text{T}}$

$48 - 2 = \square \rightarrow \boxed{\text{V}}$

$39 - 7 = \square \rightarrow \boxed{\text{I}}$

$85 - 35 = \square \rightarrow \boxed{\text{W}}$

$125 - 39 = \square \rightarrow \boxed{\text{O}}$

$69 - 28 = \square \rightarrow \boxed{\text{P}}$

$81 - 13 = \square \rightarrow \boxed{\text{B}}$

$82 - 22 = \square \rightarrow \boxed{\text{D}}$

$75 - 5 = \square \rightarrow \boxed{\text{N}}$

$115 - 35 = \square \rightarrow \boxed{\text{A}}$

$86 - 1 = \square \rightarrow \boxed{\text{E}}$

$40 - 11 = \square \rightarrow \boxed{\text{H}}$

$44 - 23 = \square \rightarrow \boxed{\text{K}}$

$45 - 14 = \square \rightarrow \boxed{\text{S}}$

$48 - 1 = \square \rightarrow \boxed{\text{L}}$

$72 - 23 = \square \rightarrow \boxed{\text{Y}}$

$92 - 30 = \square \rightarrow \boxed{\text{R}}$

Scratch space:

CLUE 4

We counted the claw prints along the craft grid by twos and fives to identify the helmet dropped near the site.

Solve each problem, then write its letter in every clue box that shows the same number.

A 3x8 grid of boxes. The first row contains the numbers 28, 70, 50, 140, 65, 28, followed by two empty boxes. The second row contains the numbers 70, 21, 27, 60, 21, 110, followed by two empty boxes. The third row contains the numbers 110, 70, 21, followed by three empty boxes. The numbers 28 and 28 in the first row are each preceded by an orange square containing a white 'S'.

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 → **S**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 → **D**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 → **R**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 →

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 → **L**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, __, 70, 80 → **M**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, __, 18, 21 → **U**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, , 27, 30 → **N**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, , 35, 40 → **W**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, __, 75, 80 → **H**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, , 16, 18 → **F**

Skip-count by 2s. Fill the blank: 2, 4, 6, __, 10, 12 → **G**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 → **E**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 → **T**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, __, 60, 70 → **A**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 → **O**

Scratch space:

CLUE 5**Missing addends - the last clue**

Solving the missing resource count on the craft table unlocks the final record about the culprit.

First solve each problem. Then find each answer in the numbered list below and cross that sentence out. One sentence will be left - that is exactly what the villain did!

Step 1 - solve these:

$1 + \underline{\quad} = 11$

$1 + \underline{\quad} = 4$

$10 + \underline{\quad} = 21$

$10 + \underline{\quad} = 22$

$6 + \underline{\quad} = 14$

$5 + \underline{\quad} = 11$

$5 + \underline{\quad} = 10$

$4 + \underline{\quad} = 8$

$9 + \underline{\quad} = 16$

$8 + \underline{\quad} = 17$

$9 + \underline{\quad} = 11$

Step 2 - cross out the sentence with each answer:

1. The villain steered a heavy triceratops guard, then swung a glowing netherite sword.
2. The villain flew a pterodactyl reconnaissance drone, then mined through obsidian walls with a diamond pickaxe.
3. The villain tamed a giant blocky T-Rex, then shot an enchanted bow across the canyon.
4. The villain tamed a giant blocky T-Rex, then bounced over the security fences with slime boots.
5. The villain flew a pterodactyl reconnaissance drone, then shot an enchanted bow across the canyon.
6. The villain flew a pterodactyl reconnaissance drone, then fired an explosive redstone launcher.
7. The villain steered a heavy triceratops guard, then mined through obsidian walls with a diamond pickaxe.
8. The villain rode an armored stegosaurus, then mined through obsidian walls with a diamond pickaxe.
9. The villain rode an armored stegosaurus, then swung a glowing netherite sword.
10. The villain rode an armored stegosaurus, then bounced over the security fences with slime boots.
11. The villain steered a heavy triceratops guard, then shot an enchanted bow across the canyon.
12. The villain leaded a swift hunting raptor, then shot an enchanted bow across the canyon.

Answer Key

The Great Fossil Biome Heist

Culprit: Claire Dearing

Triceratops Guard · Netherite Sword · Left Handed · Iron Helmet · Anvil Traps

Trail: Start 21 → Clue 1 17 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE VILLAIN DOES NOT USE A REDSTONE LAUNCHER"

What number has 7 tens and 6 ones? = 76 (T) · What number has 2 tens and 3 ones? = 23 (U) · What number has 9 tens and 5 ones? = 95 (C) · What number has 8 tens and 4 ones? = 84 (O) · What number has 9 tens and 4 ones? = 94 (H) · What number has 4 tens and 2 ones? = 42 (V) · What number has 1 ten and 1 one? = 11 (A) · What number has 4 tens and 4 ones? = 44 (L) · What number has 6 tens and 5 ones? = 65 (S) · What number has 3 tens and 5 ones? = 35 (E) · What number has 4 tens and 7 ones? = 47 (D) · What number has 6 tens and 1 one? = 61 (I) · What number has 4 tens and 3 ones? = 43 (N) · What number has 9 tens and 8 ones? = 98 (R)

Clue 2 (Addition): "THE SUSPECT USED THEIR LEFT HAND TO PRY LOOSE"

$36 + 47 = 83$ (T) · $49 + 49 = 98$ (C) · $10 + 22 = 32$ (H) · $30 + 47 = 77$ (S) · $33 + 37 = 70$ (D) · $30 + 17 = 47$ (Y) · $28 + 34 = 62$ (U) · $25 + 48 = 73$ (E) · $42 + 39 = 81$ (O) · $66 + 27 = 93$ (P) · $30 + 37 = 67$ (F) · $36 + 56 = 92$ (R) · $30 + 41 = 71$ (L) · $34 + 34 = 68$ (N) · $15 + 24 = 39$ (A) · $33 + 58 = 91$ (I)

Clue 3 (Subtraction): "THE SNEAK WAS STOPPED BY HEAVY ANVIL TRAPS"

$48 - 24 = 24$ (T) · $48 - 2 = 46$ (V) · $39 - 7 = 32$ (I) · $85 - 35 = 50$ (W) · $125 - 39 = 86$ (O) · $69 - 28 = 41$ (P) · $81 - 13 = 68$ (B) · $82 - 22 = 60$ (D) · $75 - 5 = 70$ (N) · $115 - 35 = 80$ (A) · $86 - 1 = 85$ (E) · $40 - 11 = 29$ (H) · $44 - 23 = 21$ (K) · $45 - 14 = 31$ (S) · $48 - 1 = 47$ (L) · $72 - 23 = 49$ (Y) · $92 - 30 = 62$ (R)

Clue 4 (Skip counting): "SHARDS OF AN IRON HELMET WERE FOUND AT THE DIG"

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 = 28 (S) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 = 65 (D) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 = 140 (R) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 = 35 (I) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 = 27 (L) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, __, 70, 80 = 60 (M) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, __, 18, 21 = 15 (U) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, __, 27, 30 = 24 (N) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, __, 35, 40 = 30 (W) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, __, 75, 80 = 70 (H) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, __, 16, 18 = 14 (F) · Skip-count by 2s. Fill the blank: 2, 4, 6, __, 10, 12 = 8 (G) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 = 21 (E) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 = 110 (T) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, __, 60, 70 = 50 (A) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 = 39 (O)

Clue 5 (Missing addends): surviving statement is box 1 → Claire Dearing

$1 + \underline{\quad} = 11 = 10$ · $1 + \underline{\quad} = 4 = 3$ · $10 + \underline{\quad} = 21 = 11$ · $10 + \underline{\quad} = 22 = 12$ · $6 + \underline{\quad} = 14 = 8$ · $5 + \underline{\quad} = 11 = 6$ · $5 + \underline{\quad} = 10 = 5$ · $4 + \underline{\quad} = 8 = 4$ · $9 + \underline{\quad} = 16 = 7$ · $8 + \underline{\quad} = 17 = 9$ · $9 + \underline{\quad} = 11 = 2$