



The Great Fossil Mystery

Grade 4 math · Addition, Rounding, Subtraction, Multiplication, Division · Reading level grades 3-4

Detective: _____ Date: _____

A rare golden T-rex skull has disappeared from the camp. You must analyze clues left around the dig site to catch the sneaky thief before they escape.

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 fossil thief is _____

Possible suspects

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

NAME	DINO POWER	SPECIAL GEAR	FOOTPRINT TELL	FEATHER COLOR	TRICKED BY
Jim Jensen	TAIL SWIPE	WING GLIDE	RIGHT FOOTED	RED FEATHERS	BRIGHT FLASHLIGHT
Lindsay Zanno	TAIL SWIPE	ARMORED HIDE	RIGHT FOOTED	RED FEATHERS	LOUD WHISTLE
Paul Sereno	GROUND STOMP	NIGHT VISION	RIGHT FOOTED	BLUE FEATHERS	BRIGHT FLASHLIGHT
Ellie Sattler	GROUND STOMP	ARMORED HIDE	LEFT FOOTED	GOLD FEATHERS	SMELLY CHEESE
Kristi Curry	AMBER SHIELD	NIGHT VISION	RIGHT FOOTED	RED FEATHERS	SMELLY CHEESE
Cathy Forster	SONIC ROAR	ARMORED HIDE	RIGHT FOOTED	BLUE FEATHERS	BRIGHT FLASHLIGHT
Mary Anning	AMBER SHIELD	SWIFT DASH	RIGHT FOOTED	RED FEATHERS	BRIGHT FLASHLIGHT
Rodolfo Coria	AMBER SHIELD	NIGHT VISION	RIGHT FOOTED	GOLD FEATHERS	LOUD WHISTLE
Barnum Brown	GROUND STOMP	CAMOUFLAGE	RIGHT FOOTED	BLUE FEATHERS	BRIGHT FLASHLIGHT
Karen Chin	LAVA BLAST	NIGHT VISION	RIGHT FOOTED	GOLD FEATHERS	BRIGHT FLASHLIGHT
Jack Horner	TAIL SWIPE	SWIFT DASH	LEFT FOOTED	GOLD FEATHERS	BRIGHT FLASHLIGHT
Phil Currie	TAIL SWIPE	NIGHT VISION	LEFT FOOTED	GOLD FEATHERS	SMELLY CHEESE
Patricia Vickers	GROUND STOMP	ARMORED HIDE	LEFT FOOTED	GOLD FEATHERS	LOUD WHISTLE
Othniel Marsh	GROUND STOMP	CAMOUFLAGE	LEFT FOOTED	RED FEATHERS	SMELLY CHEESE
Paul Barrett	GROUND STOMP	NIGHT VISION	RIGHT FOOTED	GOLD FEATHERS	SMELLY CHEESE
Alan Grant	GROUND STOMP	ARMORED HIDE	RIGHT FOOTED	BLUE FEATHERS	SMELLY CHEESE
Luis Chiappe	TAIL SWIPE	WING GLIDE	RIGHT FOOTED	BLUE FEATHERS	BRIGHT FLASHLIGHT
Nizar Ibrahim	LAVA BLAST	ARMORED HIDE	RIGHT FOOTED	BLUE FEATHERS	BRIGHT FLASHLIGHT
Edward Cope	TAIL SWIPE	WING GLIDE	LEFT FOOTED	GOLD FEATHERS	LOUD WHISTLE
Sue Hendrickson	GROUND STOMP	ARMORED HIDE	LEFT FOOTED	BLUE FEATHERS	BRIGHT FLASHLIGHT
Roy Chapman	GROUND STOMP	WING GLIDE	RIGHT FOOTED	RED FEATHERS	LOUD WHISTLE

CLUE 1 Addition

You tally up all the extra fossil brushes collected from the camp supply tent to unlock the first clue code.

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

T 7417	2180	2738	T 7417	2180	4759	2738	5236	6861	7219	2738	9630	6694	7219	T 7417	3261	9630	2738
7907	6454	4120	7219	3261	5236	5191	6454	8231	2738								

$2699 + 4718 = \square \rightarrow \text{T}$	$5535 + 2696 = \square \rightarrow \text{G}$	$3902 + 2552 = \square \rightarrow \text{A}$
$1173 + 1565 = \square \rightarrow \text{E}$	$3629 + 4278 = \square \rightarrow \text{C}$	$2808 + 1312 = \square \rightarrow \text{M}$
$4211 + 2650 = \square \rightarrow \text{D}$	$1248 + 932 = \square \rightarrow \text{H}$	$3194 + 1997 = \square \rightarrow \text{L}$
$1244 + 2017 = \square \rightarrow \text{U}$	$3787 + 5843 = \square \rightarrow \text{S}$	$1888 + 3348 = \square \rightarrow \text{F}$
$2675 + 2084 = \square \rightarrow \text{I}$	$3374 + 3320 = \square \rightarrow \text{N}$	$4101 + 3118 = \square \rightarrow \text{O}$

Scratch space:

CLUE 2

The camp radar screen rounds all distant jungle movements to the nearest ten meters to display the second code.

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

Diagram illustrating the numbers and their corresponding boxes in the first two rows of the grid:

- Row 1: 30 (T), 230, 130, 20, 90, 200, 3700, 110, 2300, 4300, 2000, 200, 5000, 1100, 500, 130
- Row 2: 5000, 2900, 130, 430, 1300, 230, 3700, 3000, 5000, 30 (T), 1700, 1100, 1100, 30 (T), 9000, 230, 3700, 110, 30 (T)

Round 26 to the nearest ten $\rightarrow$ **T**

Round 4,272 to the nearest hundred $\rightarrow$ **U**

Round 4,559 to the nearest thousand $\rightarrow$ **H**

Round 212 to the nearest hundred $\rightarrow$ **S**

Round 232 to the nearest ten $\rightarrow$ **R**

Round 8,581 to the nearest thousand $\rightarrow$ **P**

Round 2,336 to the nearest hundred → **M**

Round 17 to the nearest ten $\rightarrow$ **C**

Round 434 to the nearest ten $\rightarrow$ **V**

Round 1,120 to the nearest hundred $\rightarrow$

Round 3,655 to the nearest hundred $\rightarrow$

Round 1,705 to the nearest hundred → **F**

Round 131 to the nearest ten $\rightarrow$ **A**

Round 1,320 to the nearest hundred →

Round 2,123 to the nearest thousand → **D**

Round 459 to the nearest hundred $\rightarrow$ **W**

Round 91 to the nearest ten $\rightarrow$ **K**

Round 3,097 to the nearest thousand → **G**

Round 2,881 to the nearest hundred → **E**

Round 114 to the nearest ten $\rightarrow$ **N**

Scratch space:

CLUE 3
Subtraction

You calculate how many amber gems are missing from the storage chest to reveal the third secret code.

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

T			T															
2291	1905	2395	2291	1905	5956	2395	8287	2562	5311	8299	8299	1158	5311	5150	2395	2592	4747	7995

						T										T
5311	4747	5150	5956	8082	1905	2291	8287	2959	5311	8299	1905	2959	5956	8082	1905	2291

$6511 - 4220 = \boxed{} \rightarrow \boxed{T}$

$4848 - 101 = \boxed{} \rightarrow \boxed{B}$

$4233 - 1641 = \boxed{} \rightarrow \boxed{D}$

$6619 - 3660 = \boxed{} \rightarrow \boxed{L}$

$8402 - 115 = \boxed{} \rightarrow \boxed{F}$

$4523 - 3365 = \boxed{} \rightarrow \boxed{C}$

$3630 - 1725 = \boxed{} \rightarrow \boxed{H}$

$9212 - 1217 = \boxed{} \rightarrow \boxed{Y}$

$6380 - 424 = \boxed{} \rightarrow \boxed{I}$

$4688 - 2293 = \boxed{} \rightarrow \boxed{E}$

$8515 - 3365 = \boxed{} \rightarrow \boxed{R}$

$9420 - 4109 = \boxed{} \rightarrow \boxed{A}$

$11970 - 3671 = \boxed{} \rightarrow \boxed{S}$

$6311 - 3749 = \boxed{} \rightarrow \boxed{W}$

$9177 - 1095 = \boxed{} \rightarrow \boxed{G}$

Scratch space:

CLUE 4
Multiplication facts (1-12)

You count the rows and columns of dig grid squares across the valley floor to solve the fourth clue.

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

W																	
99	72	24	96	28	120	27	42	90	11	120	77	49	50	28	72		
24	72	6	121	90	72	80	42	6	121	121	90	72	42	88	72	120	72

$9 \times 11 = \square \rightarrow \text{W}$

$11 \times 8 = \square \rightarrow \text{C}$

$12 \times 8 = \square \rightarrow \text{O}$

$4 \times 6 = \square \rightarrow \text{F}$

$5 \times 10 = \square \rightarrow \text{L}$

$11 \times 1 = \square \rightarrow \text{I}$

$10 \times 8 = \square \rightarrow \text{R}$

$11 \times 11 = \square \rightarrow \text{T}$

$6 \times 7 = \square \rightarrow \text{S}$

$7 \times 7 = \square \rightarrow \text{B}$

$6 \times 12 = \square \rightarrow \text{E}$

$11 \times 7 = \square \rightarrow \text{Y}$

$7 \times 4 = \square \rightarrow \text{U}$

$10 \times 9 = \square \rightarrow \text{H}$

$2 \times 3 = \square \rightarrow \text{A}$

$10 \times 12 = \square \rightarrow \text{N}$

$9 \times 3 = \square \rightarrow \text{D}$

Scratch space:

CLUE 5**Division facts (1-12) - the last clue**

You divide the heavy plaster casts equally into supply crates to decode the final clue.

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:

$42 \div 6 = \boxed{}$

$15 \div 5 = \boxed{}$

$40 \div 5 = \boxed{}$

$7 \div 7 = \boxed{}$

$9 \div 1 = \boxed{}$

$66 \div 6 = \boxed{}$

$36 \div 6 = \boxed{}$

$16 \div 4 = \boxed{}$

$10 \div 5 = \boxed{}$

$15 \div 3 = \boxed{}$

$96 \div 8 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain knocked over the bone display, then glided off the high cliff.
2. The villain stole the raptor claw, then shielded from falling rocks.
3. The villain took the T-rex skull, then shielded from falling rocks.
4. The villain smashed the amber case, then shielded from falling rocks.
5. The villain stole the raptor claw, then snapped night vision goggles on.
6. The villain swiped the fossil map, then shielded from falling rocks.
7. The villain knocked over the bone display, then shielded from falling rocks.
8. The villain smashed the amber case, then snapped night vision goggles on.
9. The villain swiped the fossil map, then snapped night vision goggles on.
10. The villain stole the raptor claw, then glided off the high cliff.
11. The villain smashed the amber case, then vanished into thin air.
12. The villain smashed the amber case, then glided off the high cliff.

Answer Key

The Great Fossil Mystery

Culprit: Luis Chiappe

TAIL SWIPE · WING GLIDE · RIGHT FOOTED · BLUE FEATHERS · BRIGHT FLASHLIGHT

Trail: Start 21 → Clue 1 19 → Clue 2 13 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE THIEF DOES NOT USE CAMOUFLAGE"

$2699 + 4718 = 7417$ (T) · $5535 + 2696 = 8231$ (G) · $3902 + 2552 = 6454$ (A) · $1173 + 1565 = 2738$ (E) · $3629 + 4278 = 7907$ (C) · $2808 + 1312 = 4120$ (M) · $4211 + 2650 = 6861$ (D) · $1248 + 932 = 2180$ (H) · $3194 + 1997 = 5191$ (L) · $1244 + 2017 = 3261$ (U) · $3787 + 5843 = 9630$ (S) · $1888 + 3348 = 5236$ (F) · $2675 + 2084 = 4759$ (I) · $3374 + 3320 = 6694$ (N) · $4101 + 3118 = 7219$ (O)

Clue 2 (Rounding): "TRACKS IN MUD SHOW A HEAVY RIGHT FOOT PRINT"

Round 26 to the nearest ten = 30 (T) · Round 4,272 to the nearest hundred = 4300 (U) · Round 4,559 to the nearest thousand = 5000 (H) · Round 212 to the nearest hundred = 200 (S) · Round 232 to the nearest ten = 230 (R) · Round 8,581 to the nearest thousand = 9000 (P) · Round 2,336 to the nearest hundred = 2300 (M) · Round 17 to the nearest ten = 20 (C) · Round 434 to the nearest ten = 430 (V) · Round 1,120 to the nearest hundred = 1100 (O) · Round 3,655 to the nearest hundred = 3700 (I) · Round 1,705 to the nearest hundred = 1700 (F) · Round 131 to the nearest ten = 130 (A) · Round 1,320 to the nearest hundred = 1300 (Y) · Round 2,123 to the nearest thousand = 2000 (D) · Round 459 to the nearest hundred = 500 (W) · Round 91 to the nearest ten = 90 (K) · Round 3,097 to the nearest thousand = 3000 (G) · Round 2,881 to the nearest hundred = 2900 (E) · Round 114 to the nearest ten = 110 (N)

Clue 3 (Subtraction): "THE THIEF WAS SCARED BY A BRIGHT FLASHLIGHT"

$6511 - 4220 = 2291$ (T) · $4848 - 101 = 4747$ (B) · $4233 - 1641 = 2592$ (D) · $6619 - 3660 = 2959$ (L) · $8402 - 115 = 8287$ (F) · $4523 - 3365 = 1158$ (C) · $3630 - 1725 = 1905$ (H) · $9212 - 1217 = 7995$ (Y) · $6380 - 424 = 5956$ (I) · $4688 - 2293 = 2395$ (E) · $8515 - 3365 = 5150$ (R) · $9420 - 4109 = 5311$ (A) · $11970 - 3671 = 8299$ (S) · $6311 - 3749 = 2562$ (W) · $9177 - 1095 = 8082$ (G)

Clue 4 (Multiplication facts (1-12)): "WE FOUND SHINY BLUE FEATHERS AT THE SCENE"

$9 \times 11 = 99$ (W) · $11 \times 8 = 88$ (C) · $12 \times 8 = 96$ (O) · $4 \times 6 = 24$ (F) · $5 \times 10 = 50$ (L) · $11 \times 1 = 11$ (I) · $10 \times 8 = 80$ (R) · $11 \times 11 = 121$ (T) · $6 \times 7 = 42$ (S) · $7 \times 7 = 49$ (B) · $6 \times 12 = 72$ (E) · $11 \times 7 = 77$ (Y) · $7 \times 4 = 28$ (U) · $10 \times 9 = 90$ (H) · $2 \times 3 = 6$ (A) · $10 \times 12 = 120$ (N) · $9 \times 3 = 27$ (D)

Clue 5 (Division facts (1-12)): surviving statement is box 10 → Luis Chiappe

$42 \div 6 = 7$ · $15 \div 5 = 3$ · $40 \div 5 = 8$ · $7 \div 7 = 1$ · $9 \div 1 = 9$ · $66 \div 6 = 11$ · $36 \div 6 = 6$ · $16 \div 4 = 4$ · $10 \div 5 = 2$ · $15 \div 3 = 5$ · $96 \div 8 = 12$