



# The Great Fossil Caper

Grade 3 math · Multiplication, Multi-step word problems, Word problems, Rounding, Division · Reading level grades 3-4

Detective: \_\_\_\_\_ Date: \_\_\_\_\_

Someone sneaked into the Dino-Valley Lab and took the glowing golden T-Rex egg! The Head Paleontologist needs your help. Look at the clues, solve the math, and find the sneaky Dino-Thief before the egg hatches!

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 Dino-Thief is** \_\_\_\_\_

# Possible suspects

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

| NAME           | DINOSAUR HANDLING    | TECH GEAR            | WRITING STYLE        | HAIR COLOR        | FAVORITE DINO FOOD |
|----------------|----------------------|----------------------|----------------------|-------------------|--------------------|
| Owen Grady     | Ankylosaurus Groomer | Night Vision Goggles | Right-handed notepad | Amber Hair        | Lava Berry Jam     |
| Mary Anning    | Raptor Whisperer     | Night Vision Goggles | Right-handed notepad | Sandy Brown Hair  | Lava Berry Jam     |
| Jack Horner    | Triceratops Rider    | Thermal Scanner      | Right-handed notepad | Sandy Brown Hair  | Salty Kelp Snacks  |
| Pete Peterson  | Pterodactyl Flyer    | Fossil GPS           | Left-handed notepad  | Amber Hair        | Fern Crunchies     |
| Alan Grant     | T-Rex Feeder         | Fossil GPS           | Left-handed notepad  | Amber Hair        | Salty Kelp Snacks  |
| Valerie Raptor | Raptor Whisperer     | Night Vision Goggles | Right-handed notepad | Basalt Black Hair | Lava Berry Jam     |
| Fiona Fern     | Triceratops Rider    | Thermal Scanner      | Right-handed notepad | Amber Hair        | Lava Berry Jam     |
| Zack Zalmoxes  | Triceratops Rider    | Sonic Whistle        | Right-handed notepad | Sandy Brown Hair  | Fern Crunchies     |
| Digby Bone     | T-Rex Feeder         | Fossil GPS           | Right-handed notepad | Amber Hair        | Lava Berry Jam     |
| Trixie Trike   | Triceratops Rider    | Night Vision Goggles | Right-handed notepad | Basalt Black Hair | Lava Berry Jam     |
| Roy Chapman    | Ankylosaurus Groomer | Thermal Scanner      | Right-handed notepad | Basalt Black Hair | Lava Berry Jam     |
| Gideon Mantell | Pterodactyl Flyer    | Sonic Whistle        | Right-handed notepad | Amber Hair        | Lava Berry Jam     |
| Sandy Sediment | Triceratops Rider    | Night Vision Goggles | Left-handed notepad  | Amber Hair        | Lava Berry Jam     |
| Penny Raptor   | Ankylosaurus Groomer | Sonic Whistle        | Right-handed notepad | Amber Hair        | Salty Kelp Snacks  |
| Maeve Fossil   | Raptor Whisperer     | Fossil GPS           | Right-handed notepad | Sandy Brown Hair  | Fern Crunchies     |
| Ellie Sattler  | Raptor Whisperer     | Night Vision Goggles | Right-handed notepad | Amber Hair        | Lava Berry Jam     |
| Rex Tracker    | Pterodactyl Flyer    | Laser Pointer        | Left-handed notepad  | Sandy Brown Hair  | Fern Crunchies     |
| Rocky Ridge    | Raptor Whisperer     | Sonic Whistle        | Right-handed notepad | Sandy Brown Hair  | Salty Kelp Snacks  |
| Barnum Brown   | Raptor Whisperer     | Thermal Scanner      | Left-handed notepad  | Sandy Brown Hair  | Salty Kelp Snacks  |
| Buster Boulder | Ankylosaurus Groomer | Fossil GPS           | Right-handed notepad | Basalt Black Hair | Fern Crunchies     |
| Dino Dan       | Ankylosaurus Groomer | Sonic Whistle        | Right-handed notepad | Amber Hair        | Fern Crunchies     |

**CLUE 1**
**Multiplication facts (1-12)**

We found crates of dino snacks stacked in rows. If we count the groups of snacks, we can decode the thief's gear clue.

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

|   |     |    |    |     |     |     |    |    |    |    |     |   |    |   |     |   |    |    |
|---|-----|----|----|-----|-----|-----|----|----|----|----|-----|---|----|---|-----|---|----|----|
| T |     |    | T  |     |     |     |    |    |    |    |     |   |    | T |     |   |    |    |
| 5 | 100 | 54 | 5  | 100 | 72  | 54  | 80 | 30 | 14 | 54 | 120 | 6 | 14 | 5 | 100 | 2 | 20 | 54 |
| T |     |    |    |     |     |     |    |    |    |    |     |   |    |   |     |   |    |    |
| 5 | 100 | 54 | 80 | 14  | 120 | 120 | 72 | 8  | 32 | 10 | 120 |   |    |   |     |   |    |    |

$5 \times 1 = \square \rightarrow \boxed{\text{T}}$

$10 \times 3 = \square \rightarrow \boxed{\text{D}}$

$12 \times 10 = \square \rightarrow \boxed{\text{S}}$

$9 \times 6 = \square \rightarrow \boxed{\text{E}}$

$2 \times 10 = \square \rightarrow \boxed{\text{V}}$

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

$7 \times 2 = \square \rightarrow \boxed{\text{O}}$

$6 \times 1 = \square \rightarrow \boxed{\text{N}}$

$8 \times 9 = \square \rightarrow \boxed{\text{I}}$

$5 \times 2 = \square \rightarrow \boxed{\text{P}}$

$4 \times 8 = \square \rightarrow \boxed{\text{G}}$

$8 \times 10 = \square \rightarrow \boxed{\text{F}}$

$2 \times 1 = \square \rightarrow \boxed{\text{A}}$

$1 \times 8 = \square \rightarrow \boxed{\text{L}}$

Scratch space:

## CLUE 2

## Multi-step word problems

The lab track system shows footprints. By adding the dino steps and subtracting the human ones, we can find the hand tell.

Solve each problem, then write its letter in the boxes to fill in the missing word.

A witness saw the villain was

|    |    |   |    |    |    |    |    |  |   |   |   |    |   |    |   |   |    |   |
|----|----|---|----|----|----|----|----|--|---|---|---|----|---|----|---|---|----|---|
| R  |    |   |    |    |    |    |    |  | D | E | D |    | O |    | E | P |    | D |
| 36 | 40 | 8 | 31 | 27 | 31 | 25 | 26 |  |   |   |   | 26 |   | 27 |   |   | 25 |   |

There were 129 fossil brushes in all. 3 Dino Patrol used 7 fossil brushes each. The other 3 Dino Patrol shared the rest equally. How many fossil brushes did each of the other Dino Patrol get?

Answer:  → **R**

Ranger Rex filled 2 boxes with 4 egg warmers each, then found 19 more egg warmers. How many egg warmers are there in all?

Answer:  → **T**

There were 77 egg warmers in all. 5 egg warmers were set aside. The rest were shared equally among 9 Dino Patrol. How many egg warmers did each get?

Answer:  → **G**

Ranger Rex earned 3 fossil brushes in each of 5 rounds, plus 14 bonus fossil brushes. Then 4 fossil brushes were lost. How many fossil brushes are left?

Answer:  → **A**

Ranger Rex filled 9 boxes with 3 toy raptors each, then found 13 more toy raptors. How many toy raptors are there in all?

Answer:  → **I**

There were 118 toy raptors in all. 2 Dino Patrol used 7 toy raptors each. The other 4 Dino Patrol shared the rest equally. How many toy raptors did each of the other Dino Patrol get?

Answer:  → **N**

Ranger Rex filled 8 boxes with 2 dino treats each, then found 15 more dino treats. How many dino treats are there in all?

Answer:  → **H**

Scratch space:



## CLUE 4 Rounding

The radar scanner only shows rounded numbers for weight limits. Rounding the weight of this footprint unlocks the weakness clue.

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

|      |    |     |      |      |      |    |     |      |     |    |      |      |    |     |     |    |     |
|------|----|-----|------|------|------|----|-----|------|-----|----|------|------|----|-----|-----|----|-----|
| A    |    |     |      |      |      | A  |     |      |     | A  |      |      | A  |     |     |    |     |
| 20   | 80 | 800 | 6000 | 400  | 30   | 20 | 600 | 400  | 50  | 20 | 7000 | 4000 | 20 | 900 | 700 | 30 | 500 |
|      |    |     |      |      |      | A  |     |      |     | A  |      |      |    |     |     |    |     |
| 3000 | 40 | 500 | 30   | 6000 | 4000 | 20 | 700 | 6000 | 700 | 20 | 500  | 6000 |    |     |     |    |     |

Round 16 to the nearest ten  → **A**

Round 932 to the nearest hundred  → **U**

Round 44 to the nearest ten  → **N**

Round 7,051 to the nearest thousand  → **S**

Round 553 to the nearest hundred  → **I**

Round 78 to the nearest ten  → **M**

Round 824 to the nearest hundred  → **B**

Round 701 to the nearest hundred  → **G**

Round 5,592 to the nearest thousand  → **E**

Round 546 to the nearest hundred  → **T**

Round 52 to the nearest ten  → **W**

Round 31 to the nearest ten  → **H**

Round 3,510 to the nearest thousand  → **C**

Round 368 to the nearest hundred  → **R**

Round 3,164 to the nearest thousand  → **O**

Scratch space:

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

We must share the dino treats equally among the baby stegos. Splitting them up fairly gives us the final detail.

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:**

$12 \div 12 = \square$

$12 \div 2 = \square$

$90 \div 10 = \square$

$10 \div 1 = \square$

$12 \div 4 = \square$

$35 \div 5 = \square$

$55 \div 5 = \square$

$16 \div 4 = \square$

$10 \div 5 = \square$

$10 \div 2 = \square$

$48 \div 4 = \square$

**Step 2 - cross out the sentence with each answer:**

1. The villain disguises themselves as a triceratops, then checks a glowing screen.
2. The villain sails down on a glider, then checks a glowing screen.
3. The villain sneaks past the sleeping t-rex, then taps on a pocket map.
4. The villain sails down on a glider, then puts on dark green glasses.
5. The villain shuffles through the swamp, then taps on a pocket map.
6. The villain sails down on a glider, then blows a tiny whistle.
7. The villain rides a giant raptor into the lab, then blows a tiny whistle.
8. The villain shuffles through the swamp, then puts on dark green glasses.
9. The villain rides a giant raptor into the lab, then puts on dark green glasses.
10. The villain sails down on a glider, then taps on a pocket map.
11. The villain rides a giant raptor into the lab, then checks a glowing screen.
12. The villain disguises themselves as a triceratops, then taps on a pocket map.

# Answer Key

## The Great Fossil Caper

### Culprit: Owen Grady

Ankylosaurus Groomer · Night Vision Goggles · Right-handed notepad · Amber Hair · Lava Berry Jam

Trail: Start 21 → Clue 1 16 → Clue 2 13 → Clue 3 8 → Clue 4 4 → Clue 5 1

#### Clue 1 (Multiplication facts (1-12)): "THE THIEF DOES NOT HAVE THE FOSSIL GPS"

$5 \times 1 = 5$  (T) ·  $10 \times 3 = 30$  (D) ·  $12 \times 10 = 120$  (S) ·  $9 \times 6 = 54$  (E) ·  $2 \times 10 = 20$  (V) ·  $10 \times 10 = 100$  (H) ·  $7 \times 2 = 14$  (O) ·  $6 \times 1 = 6$  (N) ·  $8 \times 9 = 72$  (I) ·  $5 \times 2 = 10$  (P) ·  $4 \times 8 = 32$  (G) ·  $8 \times 10 = 80$  (F) ·  $2 \times 1 = 2$  (A) ·  $1 \times 8 = 8$  (L)

#### Clue 2 (Multi-step word problems): "RIGHT HANDED NOTEPAD"

There were 129 fossil brushes in all. 3 Dino Patrol used 7 fossil brushes each. The other 3 Dino Patrol shared the rest equally. How many fossil brushes did each of the other Dino Patrol get? = 36 (R) · Ranger Rex filled 2 boxes with 4 egg warmers each, then found 19 more egg warmers. How many egg warmers are there in all? = 27 (T) · There were 77 egg warmers in all. 5 egg warmers were set aside. The rest were shared equally among 9 Dino Patrol. How many egg warmers did each get? = 8 (G) · Ranger Rex earned 3 fossil brushes in each of 5 rounds, plus 14 bonus fossil brushes. Then 4 fossil brushes were lost. How many fossil brushes are left? = 25 (A) · Ranger Rex filled 9 boxes with 3 toy raptors each, then found 13 more toy raptors. How many toy raptors are there in all? = 40 (I) · There were 118 toy raptors in all. 2 Dino Patrol used 7 toy raptors each. The other 4 Dino Patrol shared the rest equally. How many toy raptors did each of the other Dino Patrol get? = 26 (N) · Ranger Rex filled 8 boxes with 2 dino treats each, then found 15 more dino treats. How many dino treats are there in all? = 31 (H)

#### Clue 3 (Word problems): "LAVA BERRY JAM"

Ranger Rex found 35 egg warmers yesterday and 21 more today. How many egg warmers in all? = 56 (L) · Ranger Rex lined up 4 rows of 7 dino treats. How many dino treats in all? = 28 (A) · There were 64 egg warmers. 26 were used up. How many egg warmers are left? = 38 (R) · Ranger Rex lined up 3 rows of 9 egg warmers. How many egg warmers in all? = 27 (E) · There were 82 toy raptors. 39 were used up. How many toy raptors are left? = 43 (Y) · There were 71 fossil brushes. 12 were used up. How many fossil brushes are left? = 59 (B) · There were 67 dig spades. 20 were used up. How many dig spades are left? = 47 (V)

#### Clue 4 (Rounding): "AMBER HAIR WAS CAUGHT ON THE CAGE GATE"

Round 16 to the nearest ten = 20 (A) · Round 932 to the nearest hundred = 900 (U) · Round 44 to the nearest ten = 40 (N) · Round 7,051 to the nearest thousand = 7000 (S) · Round 553 to the nearest hundred = 600 (I) · Round 78 to the nearest ten = 80 (M) · Round 824 to the nearest hundred = 800 (B) · Round 701 to the nearest hundred = 700 (G) · Round 5,592 to the nearest thousand = 6000 (E) · Round 546 to the nearest hundred = 500 (T) · Round 52 to the nearest ten = 50 (W) · Round 31 to the nearest ten = 30 (H) · Round 3,510 to the nearest thousand = 4000 (C) · Round 368 to the nearest hundred = 400 (R) · Round 3,164 to the nearest thousand = 3000 (O)

#### Clue 5 (Division facts (1-12)): surviving statement is box 8 → Owen Grady

$12 \div 12 = 1$  ·  $12 \div 2 = 6$  ·  $90 \div 10 = 9$  ·  $10 \div 1 = 10$  ·  $12 \div 4 = 3$  ·  $35 \div 5 = 7$  ·  $55 \div 5 = 11$  ·  $16 \div 4 = 4$  ·  $10 \div 5 = 2$  ·  $10 \div 2 = 5$  ·  $48 \div 4 = 12$