



# Escape from the Safehouse

Grade 5 math · Multiplication, Place value, Rounding, Skip counting, Division · Reading level grades 5-6

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

The escape door is locked tight. Someone has been infected by the mysterious substance and is trying to trap us inside the safehouse! We must work together, solve the puzzle locks, and deduce who the Infected is before our escape window closes forever.

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 Infected is** \_\_\_\_\_

## Possible suspects

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

| NAME    | INFECTION TOOL | SPAWN TRAP      | WIELDING HAND | GLOWING EYE        | DISTRACTION ITEM     |
|---------|----------------|-----------------|---------------|--------------------|----------------------|
| Dakoda  | Steel Crowbar  | Black Hole Trap | Right-Handed  | Purple Glowing Eye | Crunchy Carrot       |
| Crove   | Fencing Foil   | Teleport Trap   | Left-Handed   | Purple Glowing Eye | Crunchy Carrot       |
| Kolie   | Claw Hammer    | Alarm Trap      | Right-Handed  | Purple Glowing Eye | Crunchy Carrot       |
| Torcher | Iron Wrench    | Black Hole Trap | Left-Handed   | Purple Glowing Eye | Crunchy Carrot       |
| Rash    | Steel Crowbar  | Slow Trap       | Right-Handed  | Purple Glowing Eye | Fresh Apple          |
| Elly    | Wooden Bat     | Alarm Trap      | Right-Handed  | Purple Glowing Eye | Sweet Blade of Grass |
| Tigry   | Iron Wrench    | Black Hole Trap | Right-Handed  | Purple Glowing Eye | Crunchy Carrot       |
| Foxy    | Claw Hammer    | Slow Trap       | Right-Handed  | Purple Glowing Eye | Fresh Apple          |
| Sheepy  | Steel Crowbar  | Slow Trap       | Left-Handed   | Red Glowing Eye    | Sweet Blade of Grass |
| Clowny  | Claw Hammer    | Teleport Trap   | Right-Handed  | Purple Glowing Eye | Fresh Apple          |
| Archie  | Claw Hammer    | Freeze Trap     | Left-Handed   | Purple Glowing Eye | Crunchy Carrot       |
| Doggy   | Steel Crowbar  | Black Hole Trap | Left-Handed   | Red Glowing Eye    | Sweet Blade of Grass |
| Bunny   | Iron Wrench    | Alarm Trap      | Right-Handed  | Red Glowing Eye    | Sweet Blade of Grass |
| Mimi    | Wooden Bat     | Slow Trap       | Left-Handed   | Red Glowing Eye    | Crunchy Carrot       |
| Willow  | Steel Crowbar  | Freeze Trap     | Right-Handed  | Red Glowing Eye    | Sweet Blade of Grass |
| Pony    | Iron Wrench    | Freeze Trap     | Right-Handed  | Purple Glowing Eye | Crunchy Carrot       |
| Badgy   | Claw Hammer    | Teleport Trap   | Left-Handed   | Blue Glowing Eye   | Fresh Apple          |
| Pandy   | Fencing Foil   | Freeze Trap     | Right-Handed  | Red Glowing Eye    | Sweet Blade of Grass |
| Penny   | Iron Wrench    | Teleport Trap   | Left-Handed   | Purple Glowing Eye | Crunchy Carrot       |
| Beary   | Wooden Bat     | Black Hole Trap | Right-Handed  | Purple Glowing Eye | Crunchy Carrot       |
| Zizzy   | Fencing Foil   | Slow Trap       | Right-Handed  | Red Glowing Eye    | Crunchy Carrot       |

## Multiplication facts (1-12)

We crept into the school gym and found stacks of wooden barricades arranged in perfect rows. To count them quickly, we can multiply the number of rows by the boards in each row to gather our supplies before Piggy arrives.

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

A 2x10 grid of boxes. The top row contains the following values from left to right: 10 (with 'T'), 18, 77, 22, 66, 36, 77, 14, 10 (with 'T'), 77, 28, 28, 54, 77, 70, 66, 54, 10 (with 'T'). The bottom row contains: 11, 70, 77, 10 (with 'T'), 18, 77, 40, 132, 40, 15, 1, 10 (with 'T'), 15, 40, 49.

$1 \times 10 = \boxed{\phantom{00}} \rightarrow \boxed{\mathbf{T}}$

$$12 \times 11 = \boxed{\phantom{000}} \rightarrow \boxed{\text{L}}$$

$$4 \times 7 = \boxed{\phantom{00}} \rightarrow \mathbf{D}$$

$6 \times 9 = \square \rightarrow \boxed{0}$

$$6 \times 11 = \boxed{\phantom{00}} \rightarrow \boxed{\text{N}}$$

$$3 \times 5 = \boxed{\phantom{00}} \rightarrow \boxed{\text{R}}$$

$$2 \times 7 = \boxed{\phantom{00}} \rightarrow \boxed{\text{C}}$$

$5 \times 8 = \square \rightarrow \boxed{\mathbf{A}}$

$11 \times 1 = \square \rightarrow \boxed{\text{U}}$

$3 \times 12 = \boxed{\phantom{00}} \rightarrow \boxed{\text{F}}$

$7 \times 7 = \square \rightarrow \boxed{\text{P}}$

$11 \times 7 = \square \rightarrow \boxed{\text{E}}$

$11 \times 2 = \square \rightarrow \boxed{I}$

$9 \times 2 = \square \rightarrow \boxed{\text{H}}$

$$7 \times 10 = \boxed{\phantom{00}} \rightarrow \boxed{\text{S}}$$

$$1 \times 1 = \boxed{\phantom{00}} \rightarrow \boxed{\mathbf{M}}$$

Scratch space:

## CLUE 2 Place value

Inside the safehouse workshop, a locked digital safe holds the master key. The keypad requires us to analyze the place value of the digits in the override code to pop the door open.

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

|              |      |      |      |      |      |      |     |      |     |      |      |      |     |      |      |     |  |
|--------------|------|------|------|------|------|------|-----|------|-----|------|------|------|-----|------|------|-----|--|
| <div>T</div> |      |      |      |      |      |      |     |      |     |      |      |      |     |      |      |     |  |
| 300          | 900  | 3000 | 5000 | 7000 | 7000 | 40   | 900 | 6000 | 50  | 5000 | 80   | 3000 | 700 | 6000 | 9000 |     |  |
|              |      |      |      |      |      |      |     |      | T   |      |      |      |     |      |      | T   |  |
| 10           | 40   | 6000 | 600  | 600  | 3000 | 5000 | 700 | 20   | 300 | 900  | 6000 | 40   | 20  | 10   | 900  | 300 |  |
|              |      |      |      |      |      |      |     |      |     |      |      |      |     |      |      |     |  |
| 900          | 6000 | 50   | 5000 |      |      |      |     |      |     |      |      |      |     |      |      |     |  |

What is the value of the 3 in 455,311?  → **T**

What is the value of the 6 in 976,541?  → **A**

What is the value of the 9 in 660,958?  → **H**

What is the value of the 5 in 45,016?  → **D**

What is the value of the 6 in 585,623?  → **B**

What is the value of the 7 in 543,704?  → **W**

What is the value of the 7 in 147,589?  → **O**

What is the value of the 4 in 20,748?  → **R**

What is the value of the 9 in 379,625?  → **S**

What is the value of the 3 in 13,454?  → **E**

What is the value of the 1 in 688,419?  → **G**

What is the value of the 5 in 786,152?  → **N**

What is the value of the 2 in 175,021?  → **I**

What is the value of the 8 in 15,187?  → **L**

Scratch space:

### CLUE 3 Rounding

Our motion tracker screen is a bit glitchy and only displays rounded numbers for distance. If we round the signals to the nearest ten, we can figure out exactly how close the infected beast is to our hiding spot.

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

|     |     |      |      |      |      |     |      |     |      |      |      |      |      |      |      |      |      |     |   |
|-----|-----|------|------|------|------|-----|------|-----|------|------|------|------|------|------|------|------|------|-----|---|
| T   |     |      |      |      |      |     |      | T   |      |      |      |      |      |      |      |      |      | T   |   |
| 230 | 300 | 5000 | 1100 | 5000 | 2300 | 430 | 230  | 430 | 230  | 1300 | 9000 | 9000 | 5000 | 70   | 230  | 1300 |      |     |   |
|     |     |      |      |      |      |     |      |     |      |      |      |      |      |      |      |      |      |     | T |
| 170 | 900 | 1700 | 20   | 300  | 2300 | 20  | 4300 | 900 | 1700 | 20   | 300  | 2000 | 20   | 2300 | 4300 | 4300 | 1300 | 230 |   |

Round 234 to the nearest ten  → **T**

Round 20 to the nearest ten  → **C**

Round 332 to the nearest hundred  → **H**

Round 72 to the nearest ten  → **D**

Round 5,005 to the nearest thousand  → **E**

Round 1,740 to the nearest thousand  → **Y**

Round 170 to the nearest ten  → **M**

Round 431 to the nearest ten  → **S**

Round 2,324 to the nearest hundred  → **A**

Round 865 to the nearest hundred  → **U**

Round 8,846 to the nearest thousand  → **P**

Round 1,659 to the nearest hundred  → **N**

Round 4,339 to the nearest hundred  → **R**

Round 1,107 to the nearest hundred  → **B**

Round 1,282 to the nearest hundred  → **O**

Scratch space:

## CLUE 4 Skip counting

To climb the escape ladder safely, we have to skip count by equal steps to avoid the squeaky rungs that might alert the monster roaming the lower hallway.

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

|    |    |    |    |    |    |    |    |    |    |     |    |    |     |    |    |    |    |    |  |
|----|----|----|----|----|----|----|----|----|----|-----|----|----|-----|----|----|----|----|----|--|
| W  |    |    |    | W  |    |    |    |    |    |     |    |    |     |    |    |    |    |    |  |
| 40 | 45 | 20 | 35 | 40 | 35 | 28 | 24 | 22 | 28 | 120 | 45 | 25 | 120 | 26 | 70 | 42 | 26 | 70 |  |
|    |    |    |    |    |    |    |    |    | W  |     |    |    |     |    |    |    |    |    |  |
| 42 | 8  | 45 | 20 | 8  | 35 | 55 | 33 | 40 | 20 |     |    |    |     |    |    |    |    |    |  |

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, \_\_, 45, 50 → **W**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, \_\_, 30, 35 → **G**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, \_\_, 36, 39 → **O**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, \_\_, 45, 48 → **T**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, \_\_, 60, 65 → **D**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, \_\_, 28, 30 → **I**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, \_\_, 130, 140 → **L**

Skip-count by 2s. Fill the blank: 2, 4, 6, \_\_, 10, 12 → **H**

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

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, \_\_, 80, 90 → **N**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, \_\_, 22, 24 → **S**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, \_\_, 26, 28  → **U**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, \_\_, 24, 26  → **R**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, \_\_, 50, 55  → **E**

Scratch space:

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

We managed to salvage a crate of escape gears from the factory floor. If we divide them equally among all the safehouse survivors, we will know how many gears each person gets to fix the door.

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:**

$55 \div 11 = \boxed{\phantom{00}}$

$120 \div 10 = \boxed{\phantom{00}}$

$63 \div 9 = \boxed{\phantom{00}}$

$72 \div 8 = \boxed{\phantom{00}}$

$9 \div 9 = \boxed{\phantom{00}}$

$110 \div 10 = \boxed{\phantom{00}}$

$72 \div 9 = \boxed{\phantom{00}}$

$32 \div 8 = \boxed{\phantom{00}}$

$8 \div 4 = \boxed{\phantom{00}}$

$30 \div 5 = \boxed{\phantom{00}}$

$21 \div 7 = \boxed{\phantom{00}}$

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

1. The villain swung a heavy wooden bat, then set down a sneaky teleport trap.
2. The villain smashed the locks with a claw hammer, then summoned a swirling black hole trap.
3. The villain lunged forward with a fencing foil, then placed an icy freeze trap to halt survivors.
4. The villain smashed the locks with a claw hammer, then set down a sneaky teleport trap.
5. The villain pried open the barricades with a crowbar, then summoned a swirling black hole trap.
6. The villain swung a heavy wooden bat, then placed an icy freeze trap to halt survivors.
7. The villain clanked an iron wrench, then placed an icy freeze trap to halt survivors.
8. The villain clanked an iron wrench, then rigged a noisy alarm trap to the floor.
9. The villain swung a heavy wooden bat, then rigged a noisy alarm trap to the floor.
10. The villain clanked an iron wrench, then summoned a swirling black hole trap.
11. The villain clanked an iron wrench, then set down a sneaky teleport trap.
12. The villain swung a heavy wooden bat, then summoned a swirling black hole trap.

# Answer Key

## Escape from the Safehouse

### Culprit: Tigry

Iron Wrench · Black Hole Trap · Right-Handed · Purple Glowing Eye · Crunchy Carrot

Trail: Start 21 → Clue 1 18 → Clue 2 10 → Clue 3 5 → Clue 4 4 → Clue 5 1

### Clue 1 (Multiplication facts (1-12)): "THE INFECTED DOES NOT USE THE ALARM TRAP"

$1 \times 10 = 10$  (T) ·  $12 \times 11 = 132$  (L) ·  $4 \times 7 = 28$  (D) ·  $6 \times 9 = 54$  (O) ·  $6 \times 11 = 66$  (N) ·  $3 \times 5 = 15$  (R) ·  $2 \times 7 = 14$  (C) ·  $5 \times 8 = 40$  (A) ·  $11 \times 1 = 11$  (U) ·  $3 \times 12 = 36$  (F) ·  $7 \times 7 = 49$  (P) ·  $11 \times 7 = 77$  (E) ·  $11 \times 2 = 22$  (I) ·  $9 \times 2 = 18$  (H) ·  $7 \times 10 = 70$  (S) ·  $1 \times 1 = 1$  (M)

### Clue 2 (Place value): "THE DOOR HANDLE WAS GRABBED WITH A RIGHT HAND"

What is the value of the 3 in 455,311? = 300 (T) · What is the value of the 6 in 976,541? = 6000 (A) · What is the value of the 9 in 660,958? = 900 (H) · What is the value of the 5 in 45,016? = 5000 (D) · What is the value of the 6 in 585,623? = 600 (B) · What is the value of the 7 in 543,704? = 700 (W) · What is the value of the 7 in 147,589? = 7000 (O) · What is the value of the 4 in 20,748? = 40 (R) · What is the value of the 9 in 379,625? = 9000 (S) · What is the value of the 3 in 13,454? = 3000 (E) · What is the value of the 1 in 688,419? = 10 (G) · What is the value of the 5 in 786,152? = 50 (N) · What is the value of the 2 in 175,021? = 20 (I) · What is the value of the 8 in 15,187? = 80 (L)

### Clue 3 (Rounding): "THE BEAST STOPPED TO MUNCH A CRUNCHY CARROT"

Round 234 to the nearest ten = 230 (T) · Round 20 to the nearest ten = 20 (C) · Round 332 to the nearest hundred = 300 (H) · Round 72 to the nearest ten = 70 (D) · Round 5,005 to the nearest thousand = 5000 (E) · Round 1,740 to the nearest thousand = 2000 (Y) · Round 170 to the nearest ten = 170 (M) · Round 431 to the nearest ten = 430 (S) · Round 2,324 to the nearest hundred = 2300 (A) · Round 865 to the nearest hundred = 900 (U) · Round 8,846 to the nearest thousand = 9000 (P) · Round 1,659 to the nearest hundred = 1700 (N) · Round 4,339 to the nearest hundred = 4300 (R) · Round 1,107 to the nearest hundred = 1100 (B) · Round 1,282 to the nearest hundred = 1300 (O)

### Clue 4 (Skip counting): "WE SAW A PURPLE GLINT IN THE SHADOWS"

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, \_\_, 45, 50 = 40 (W) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, \_\_, 30, 35 = 25 (G) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, \_\_, 36, 39 = 33 (O) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, \_\_, 45, 48 = 42 (T) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, \_\_, 60, 65 = 55 (D) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, \_\_, 28, 30 = 26 (I) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, \_\_, 130, 140 = 120 (L) · Skip-count by 2s. Fill the blank: 2, 4, 6, \_\_, 10, 12 = 8 (H) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, \_\_, 40, 45 = 35 (A) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, \_\_, 30, 32 = 28 (P) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, \_\_, 80, 90 = 70 (N) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, \_\_, 22, 24 = 20 (S) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, \_\_, 26, 28 = 24 (U) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, \_\_, 24, 26 = 22 (R) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, \_\_, 50, 55 = 45 (E)

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

$55 \div 11 = 5$  ·  $120 \div 10 = 12$  ·  $63 \div 9 = 7$  ·  $72 \div 8 = 9$  ·  $9 \div 9 = 1$  ·  $110 \div 10 = 11$  ·  $72 \div 9 = 8$  ·  $32 \div 8 = 4$  ·  $8 \div 4 = 2$  ·  $30 \div 5 = 6$  ·  $21 \div 7 = 3$