High School Math Escape Room – Teacher and Student Packet

Part 1: Teacher Packet

Teacher Introduction (Read Aloud)

Today, you're not just doing math problems—you're escaping the library! You'll work in teams to solve 5 puzzles. Each puzzle gives you a code digit. Once you collect all 5 digits, you'll unlock the escape code. You'll have 40 minutes to escape. Remember, teamwork and communication are just as important as getting the answers right.

Station 1: Algebra Riddle

Teacher Talk: At this station, you'll solve a system of equations. Don't rush—think about how the two equations connect. If you're stuck, try substitution or elimination. Once you find the two numbers, only one digit is part of your escape code.

Station 2: Geometry Lock

Teacher Talk: This puzzle is all about applying geometry formulas. Remember, perimeter means adding up all the sides. Think: how do you express length in terms of width? Once you find both dimensions, the clue tells you which one to use.

Station 3: Probability Puzzle

Teacher Talk: At this station, think carefully about how probability works. It's always a fraction: what you want over the total. Check your math: are you counting all the marbles? Don't forget to simplify the fraction.

Station 4: Graphing Challenge

Teacher Talk: Now you'll switch gears to graphing. Use your graph paper. Plot the line $y = 2x + 1$. Remember: slope = rise/run, and y-intercept is where the line crosses the y-axis.

Station 5: Word Problem Finale

Teacher Talk: This is your real-life problem. Carefully set up an equation. Don't guess! Identify the fixed cost and the variable cost. Write the equation and solve step by step.

Team Performance Rubric

Criteria	4 – Excellent	3 – Good	2 – Developing	1 – Needs Improvement
Math Accuracy	All answers correct	4/5 correct	2–3 correct	0–1 correct
Collaboration	All members engaged equally	Most members engaged	Some members engaged	One member did all work
Problem-Solving	Multiple strategies, clear reasoning	Some strategies, mostly logical	Struggled with reasoning	Mainly guessing
Time Management	Finished on time, well-paced	Finished but rushed	Almost finished	Did not finish

Part 2: Student Handout

Escape Room Math Quiz

1. Solve the system of equations: $x + y = 60$, $x – y = 12$.
Answer: _____

2. A triangle has a perimeter of 48 cm. Two sides are equal, and the third is twice as long as one of the equal sides. Find the side lengths.
Answer: _____

3. A jar has 4 red, 5 yellow, and 1 blue marble. What is the probability of drawing yellow?
Answer: _____

4. Graph the equation $y = –3x + 2$. Identify the slope and y-intercept.
Slope: _____ Y-Intercept: _____

5. A movie theater charges $12 per ticket plus a $3 booking fee. If a group spent $63 total, how many tickets did they buy?
Answer: _____

Student Reflection Sheet

1. Which puzzle was easiest for you? Why?

_____

2. Which puzzle was hardest? How did your team handle it?

_____

3. One math concept I reviewed today was:

_____

4. One strategy I'll use on future problems is:

_____

Escape Code Answer Sheet

Team Name: _____

Station	Problem Type	Your Answer	Code Digit
1 – Algebra Riddle			
2 – Geometry Lock			
3 – Probability Puzzle			
4 – Graphing Challenge			
5 – Word Problem Finale			

Final Escape Code: ____ – ____ – ____ – ____ – ____