



The Haunted Classroom: Teacher Key

Answers, setup, timing and Gatekeeper notes for the Halloween escape room for grades 3 to 5. Keep this file away from the players.

1	The answer chain	every password and the code
2	Setup and timing	printing, layouts, roles
3	Running the game	Gatekeeper rules, hints, stuck teams
4	Worked solutions	all 5 stations
5	Completed Spell Book	the finished record sheet
6	Changing the difficulty	supported cards and extensions

The Answer Chain

Each answer is the password for the next card. Stations 1 to 4 also give one Spell Book digit: the last digit of the answer. Station 5 gives the order to read those digits.

Station 1 **98** → Station 2 **31** → Station 3 **30** → Station 4 **4213** → Station 5 **order** →

Final Lock 1038

Station	Answer	Unlocks	Spell Book digit
 1. The Spider Attic Multiplication facts and adding the products	98	Station 2	8 (spider)
 2. The Pumpkin Path Growing number patterns	31	Station 3	1 (pumpkin)
 3. The Bat Cave Party Logic grid and careful reading of clues	30	Station 4	0 (bat)
 4. The Potion Shelf Comparing fractions with different denominators	4213	Station 5	3 (potion)
 5. Grimsby's Diary Reading for sequence and time words	pumpkin, bat, potion, spider	the Final Lock	gives the reading order

Final spell code



1038

Read the Spell Book in Grimsby's order: pumpkin 1, bat 0, potion 3, spider 8. All 4 digits are different, so a team that reads the order wrong always gets a wrong code.

Most common final mistake: writing the digits in station order, which gives 8103. Send the team back to Station 5: the order comes from the diary, not from the station numbers.

Using a real lock? Set a 4-digit combination lock to 1038. A 3-digit lock will not work with this code. With no lock, you check the code yourself and hand over the certificate or the treat box.

Setup and Timing

The game needs paper, pencils and about 20 minutes of prep. Teams of 3 or 4 work best: big enough to share the jobs, small enough that everyone does some of the thinking.

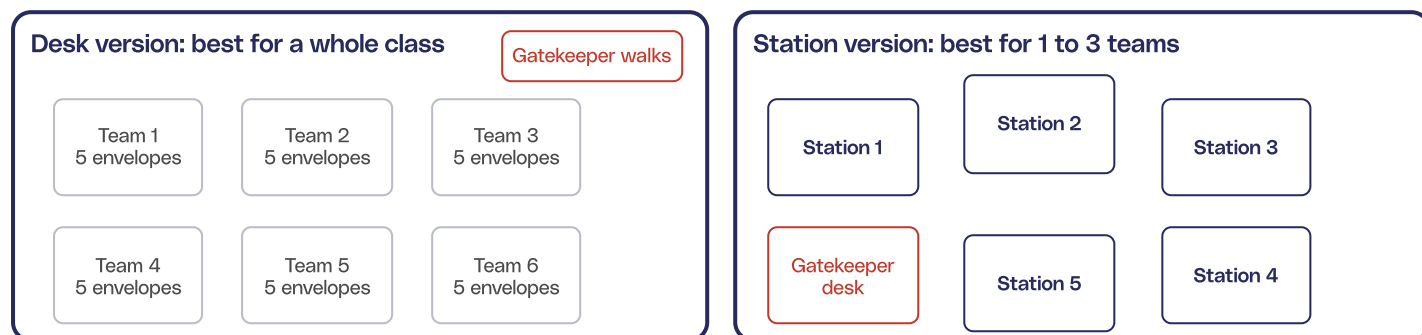
WHAT TO PRINT

Mission and Spell Book (page 2)	1 per team
Station cards 1 to 5 (pages 3 to 7)	1 set per team
Supported station cards (pages 11 to 15)	for any team that needs them
Hint cards (pages 8 and 9)	1 set, cut out
Escape certificate (page 10)	1 per team
This teacher key	1, for you

PREP CHECKLIST

- Print and cut the hint cards.
- Put each team's station cards in 5 envelopes marked 1 to 5, or keep them in your hand.
- Give every team page 2 and pencils. Keep stations 2 to 5 back.
- Optional: a box with a 4-digit lock set to 1038, holding stickers or certificates.
- Keep this key on a clipboard. It is your Gatekeeper sheet.

TWO WAYS TO SET UP THE ROOM



Desk version. Every team stays at its desk with its own envelopes. You walk around as Gatekeeper and nod each envelope open. No team waits for another, so this is the version for 6 or more teams. **Station version.** Tape one copy of each card at 5 spots around the room. A team moves to the next spot only after your OK. Teams all start at Station 1, so start them a few minutes apart if more than 3 teams play. At home or at a single table, lay the 5 envelopes face down in a row and play the same way.

PLANNING TIME FOR A GRADE 4 CLASS

Briefing and team jobs	5 minutes
Stations 1 to 4	about 5 to 8 minutes each
Station 5 and the Final Lock	about 8 minutes
Certificates and wrap-up	5 minutes

Planning estimates for a lesson of about 40 to 50 minutes, not timings from a recorded class. Younger or newer readers will need longer at Stations 3 and 5.

Running the Game

You play Grimsby's Gatekeeper. Your job is to check passwords, hand out cards and keep every team moving without solving for them.

GATEKEEPER RULES

1. Only the Runner may bring an answer. That keeps the whole team involved.
2. Right password: hand over the next envelope and say nothing about the next puzzle.
3. Wrong password: say "The door is stuck. Check your work." Do not say which step is wrong.
4. Check the Spell Book digit when you hand over each card. A wrong digit there breaks the final code.

WHEN A TEAM IS STUCK

1. Ask the Reader to read the question out loud. Most stalls are reading stalls.
2. Ask the Solver to explain the last step they are sure of.
3. After about 4 minutes with no progress, offer Hint 1. Give Hint 2 and Hint 3 only in order.
4. Still stuck, or out of hints: swap in the supported card for that station. It has the same answer, so the chain still works.

ANSWERS YOU WILL HEAR, AND WHAT THEY MEAN

Station	Wrong answer	What happened, and what to ask
1	63	Counted only the webs. Ask: where else do spiders live?
1	35	Counted only the jars.
1	88	Used $5 \times 7 = 25$. Ask the group to skip-count by 7.
2	29	Added +8 again instead of +10. Ask what the jumps do.
2	33	Guessed from $43 - 10$. Ask them to check the jump into 43.
2	42	Doubled 21. That rule breaks at 3 to 7.
3	28	Picked Maya as the witch. Clue 1 rules her out.
3	35	Mixed up Leo and the witch.
3	42	Picked Omar, the vampire.
4	2413	Put $3/8$ after $1/2$. Compare $3/8$ with $4/8$.
4	3124	Ordered most full to least full. Read the question again.
4	4231	Put $5/6$ before $2/3$. Compare $4/6$ with $5/6$.
5	spider, potion, pumpkin, bat	Copied the diary's sentence order, not the time order.
5	bat, pumpkin, potion, spider	Missed that the pumpkin was the first thing Grimsby did.
5	8103 as the final code	Wrote the Spell Book digits in station order, not in Grimsby's order.

Fast teams. Let a team that escapes early write a new clue for the Bat Cave Party that still gives one answer, then trade with another fast team. That keeps them busy without spoiling the game for anyone.

Worked Solutions

Every station below has exactly one answer from the information on its card.

Station 1: The Spider Attic

98

- Webs: $7 \times 9 = 63$ spiders.
- Jars: $5 \times 7 = 35$ spiders.
- Altogether: $63 + 35 = 98$ spiders.
- Spell Book: spider box gets 8.

Station 2: The Pumpkin Path

31

- The jumps between stones are +2, +4, +6, +8. Each jump is 2 more than the last.
- Next jump is +10: $21 + 10 = 31$.
- Check: the jump after that is +12, and $31 + 12 = 43$, which matches the last stone.
- Other rules tried (add the same number, double, double and add) all break somewhere in 1, 3, 7, 13, 21.
- Spell Book: pumpkin box gets 1.

Station 3: The Bat Cave Party

30

- Clue 1: Maya and mummy both start with M, so Maya is the mummy.
- Clue 2: the witch's name ends in a. That is Maya or Zara, and Maya is taken, so Zara is the witch.
- Clue 3: Leo is not the vampire, so Leo is the ghost and Omar is the vampire.
- The witch is Zara, and Zara's bag holds 30 candies.
- Spell Book: bat box gets 0.

	ghost	witch	vampire	mummy
Maya	×	×	×	✓
Leo	✓	×	×	×
Zara	×	✓	×	×
Omar	×	×	✓	×

Station 4: The Potion Shelf

4213

- Bottle 4 is $\frac{3}{8}$ full. That is less than half, because half is $\frac{4}{8}$.
- Bottle 2 is exactly half full.
- Bottle 1 is $\frac{2}{3}$ full, which is $\frac{4}{6}$. Bottle 3 is $\frac{5}{6}$ full. Both are more than half, and $\frac{4}{6}$ is less than $\frac{5}{6}$.
- With 24ths: $\frac{9}{24} < \frac{12}{24} < \frac{16}{24} < \frac{20}{24}$, so the order is bottle 4, 2, 1, 3.
- Spell Book: potion box gets 3.

Station 5: Grimsby's Diary

pumpkin, bat, potion, spider

- "As soon as the sun went down, I woke the pumpkin... It was the first thing I did all night." The pumpkin is 1st.
- "The bat woke up after the pumpkin was glowing, but before the potion started to bubble." The bat sits between them.
- "At nine o'clock I woke the potion." The potion is 3rd.
- "The spider was the very last helper I woke, just before midnight." The spider is 4th.
- The diary mentions the helpers in a different order (spider, potion, pumpkin, bat). Teams that copy the sentence order will get the code wrong.

The Final Lock

1038

- Spell Book digits: spider 8, pumpkin 1, bat 0, potion 3.
- Grimsby's order: pumpkin (1), bat (0), potion (3), spider (8).
- Spell code: 1038.

Why the chain cannot split. No card shows the answer that opens it, every station has a single answer, and the Spell Book only fills with digits a team has already earned. A team that skips or guesses a station cannot reach the final code.

Completed Spell Book

This is what a finished page 2 looks like. Use it to check a team's record sheet at a glance.

STATION ANSWERS ON THE WAY

Station	Answer	Last digit	Goes in
1	98	8	spider
2	31	1	pumpkin
3	30	0	bat
4	4213	3	potion

SPELL BOOK

 Station 1 digit spider 8	 Station 2 digit pumpkin 1	 Station 3 digit bat 0	 Station 4 digit potion 3
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STATION 5 ORDER

1st  pumpkin	2nd  bat	3rd  potion	4th  spider
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FINAL LOCK

 Pumpkin, bat, potion, spider

1

0

3

8

Changing the Difficulty

The supported cards change the help on the page, never the puzzle. Every supported card has the same answer as its standard card, so this one key works for both and a mixed class can play the same game.

Station	Supported card adds	For a stronger team, try
1	Skip-counting rows for 9s and 7s	Cover the web and jar pictures, so the numbers come only from the sentences
2	The first 4 jumps are written in	Cover the check line, so teams must test their own rule
3	Clue 1 already marked on the grid, plus a word bank	Ask teams to write why each clue was needed
4	Fraction bars to shade, with the half line marked	Ask teams to prove each comparison with equivalent fractions
5	Word bank of time words and a sunset-to-midnight timeline	Ask teams to write the one sentence that proves each place

Mixing cards is fine. A team can take the standard card for Station 1 and the supported card for Station 3. Hand over whichever version suits the team when you give them the envelope.

Do not drop a station. Each station gives a digit the Final Lock needs, and Station 5 gives the order. Skipping one leaves the code unsolvable. Swap in the supported card instead.

Who it fits. The standard cards suit grade 4 and confident grade 3 readers. Station 4 (comparing fractions with different denominators) is the hardest step for grade 3. Grade 5 teams usually need few hints, so the extension ideas above are worth keeping handy.