Balloon Railway Switch

HOST ONLY - preparation and story

Includes answers. Keep these pages with an adult.

The birthday team has arrived, but one important part of the celebration is missing. Choose the railway switch card that sends the birthday train home. Collect five named badge digits, then use the final sheet to finish your mission. All the clues you need are printed here. Work together and ask for a hint whenever you want.

1. Print one player pack and two record sheets per team. Keep the host answers and all three hint levels with the adult.

2. Keep every clue as a full sheet at one table. Put the final sheet face down until all five results are recorded. Nothing needs cutting, folding or hiding.

3. Give each child a pencil. Choose a reader, recorder and checker, and swap jobs after each clue. Use one team for 2-4 children or two teams for 5-6.

Players: 4; teams: 1. Print one player and prop set per team. Invitations and certificates: 4 each.

No locks, purchases or cutting required. Keep all clues at a low table. Scissors are optional and for adults only.

Balloon Railway Switch

HOST ONLY - solution guide

1. Track: 6

Trace the orthogonal path from S; the other exits are separated by walls.

2. Switch: 7

A fails striped; C fails not-round; only B meets all three requirements and gives 7.

3. Station: 0

Locate the single BOOK occurrence. The next cell contains the badge digit; other letters are filler.

4. Route: 9

Move exactly one orthogonal square per arrow; copy only the value at the endpoint.

5. Signal: 2

Replace every symbol with its letter, including repeated symbols. Convert the decoded word using the printed table.

6. Final: 02027

candidate-elimination: Compare all five clue digits against each row; only Parcel A matches.. Keep leading zeroes.

Balloon Railway Switch

HOST ONLY - timeline and paper check

3 minutes: Read the opening story and explain the badges.

5 minutes: Solve Track; offer one hint at a time.

5 minutes: Solve Switch; offer one hint at a time.

5 minutes: Solve Station; offer one hint at a time.

5 minutes: Solve Route; offer one hint at a time.

5 minutes: Solve Signal; offer one hint at a time.

5 minutes: Combine the badges on the final sheet.

2 minutes: Read the ending and award certificates.

Paper completion: check each badge against the solution guide, then check the final code. No device is required.

Mission complete! Balloon Railway Switch is ready for its birthday celebration. Thank your team for sharing ideas and helping one another.

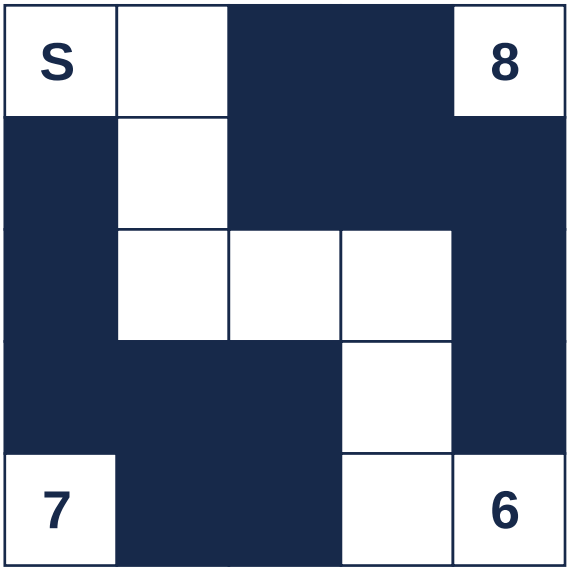
Duration and ages are estimates. Adjust pace and offer help for your group.

Balloon Railway Switch

Player clue 1: Track | Team 1

Welcome, birthday explorers! Choose the railway switch card that sends the birthday train home. Find five badge numbers. Use them on the last page. You can help each other and ask me for hints.

Start at S. Follow open squares without moving diagonally. Which numbered exit can you reach? Record its label for Track.



White = open. Dark = wall. No diagonal moves.

Row / column: start at top left; each cell is one step.

Track badge: _____

Balloon Railway Switch

Player clue 2: Switch | Team 1

Find the ONE card matching all three requirements. Cross out cards that fail any requirement. Record its digit.

Rule: striped = yes

Rule: round = no

Rule: tagged = yes

Card A - digit 8
striped: no / round: no / tagged: yes

Card B - digit 7
striped: yes / round: no / tagged: yes

Card C - digit 2
striped: yes / round: yes / tagged: yes

Switch badge: _____

Balloon Railway Switch

Player clue 3: Station | Team 1

Find BOOK reading left to right only. Copy the digit immediately AFTER the word.

Find BOOK; only read to the RIGHT.

X	X	X	X	X	X	X	X
X	B	O	O	K	0	X	X
X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X

Answer = digit in the next square after the word.

Station badge: _____

Balloon Railway Switch

Player clue 4: Route | Team 1

Start at S. Follow each arrow by one square in the listed order. Record the number on your final square.

S: 6	**7**	**8**	**9**
0	**1**	**2**	**3**
4	**5**	**6**	**7**

down > right > right > up > right

One arrow = one square. S = start.

Route badge: _____

Balloon Railway Switch

Player clue 5: Signal | Team 1

Use the symbol key to decode the message. Use the word-to-number table to turn the word into a digit.

triangle = T square = W circle = O

triangle square circle

TWO = 2

Signal badge: _____

Balloon Railway Switch

Player clue 6: Final | Team 1

Use your five badge digits to compare every clue column. Choose the single card matching ALL five digits, then enter its printed code.

C1=Track / C2=Switch / C3=Station / C4=Route / C5=Signal

Parcel A: code 02027

C1=6 / C2=7 / C3=0 / C4=9 / C5=2

Parcel B: code 20183

C1=6 / C2=8 / C3=0 / C4=9 / C5=2

Parcel C: code 20549

C1=6 / C2=7 / C3=0 / C4=0 / C5=2

Final badge: _____

Need help? Ask your host for one hint at a time.

Balloon Railway Switch

Hint cards - level 1 (spoilers; keep with host)

1. Track

Begin at S, not at an exit.

2. Switch

Check every rule, not only the first.

3. Station

Read rows from left to right; look for B.

4. Route

Start at the top-left S square.

5. Signal

The same symbol always means the same letter.

6. Final

Keep the five badge results visible. Every number has a badge name.

Balloon Railway Switch

Hint cards - level 2 (spoilers; keep with host)

1. Track

Move one square up, down, left or right. Walls cannot be crossed.

2. Switch

Rule 2 says round = no. A positive match on one rule is not enough.

3. Station

Do not search diagonally or backwards.

4. Route

One arrow means one square, even if the next square looks interesting.

5. Signal

Write one letter under every symbol.

6. Final

Use the order, slots, route or matching columns printed on this page.

Balloon Railway Switch

Hint cards - level 3 (spoilers; keep with host)

1. Track

Follow the open corridor and check each junction. Only one exit connects to S.

2. Switch

Compare the three yes/no values in each row. Only one row matches the complete rule list.

3. Station

Once the whole word matches, read the very next cell.

4. Route

Trace each move with a pencil and mark the final square.

5. Signal

Read the letters from left to right and use the printed number table.

6. Final

Compare all five columns, not just the first. Copy the code of the remaining card.

Balloon Railway Switch

Team 1 badge record (no cutting needed)

Write a digit beside each badge as you solve its clue.

Track: _____

Switch: _____

Station: _____

Route: _____

Signal: _____

Reader: reads the clue. Recorder: writes the digit. Path finder: traces routes. Swap roles every clue.

Balloon Railway Switch

Team 1 paper unlock card

Our five badges are ready. We used the final sheet to find this code:

_____

Host: compare this with your solution guide. When it matches, read the ending and celebrate.

No physical lock or prize is required. You may draw a celebration star on this card.

Balloon Railway Switch

You're invited to a birthday mystery!

Join Birthday Explorer for Balloon Railway Switch.

Choose the railway switch card that sends the birthday train home.

Date: _____

Time: _____

Place: _____

Bring your curiosity. Paper and pencils are provided. Work together, share ideas and solve six clues.

Designed for ages 8-10. Estimated 30-45 minutes.

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Balloon Railway Switch

Birthday Mystery Explorer

Presented to Birthday Explorer

Team member: _____

For completing Balloon Railway Switch with curiosity, teamwork and kindness.

Mission complete! Balloon Railway Switch is ready for its birthday celebration. Thank your team for sharing ideas and helping one another.

Date: _____

Host signature: _____

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