

Snow Train Celebration

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. Deliver the party banners to the right train carriage. 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 prop sheets per team. Keep all host and hint pages with an adult.
2. Put clue pages 1-5 at the table. Place the final sheet face down until the five badges are collected.
3. Share pencils and choose a reader, recorder and path finder. Swap jobs after each clue.

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.

Snow Train Celebration

HOST ONLY - solution guide

1. Timetable: 2

The rules form one chain: Draw a plan > Gather paper > Build the model > Show the model. Read card 4.

2. Track: 1

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

3. Luggage: 2

Subtract 1 from 7, then divide by 3. Check the result in the balance rule.

4. Ticket: 8

The matching card has both circle and dots; matching just one property is insufficient.

5. Signal: 2

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

6. Final: 82212

route-order: Ticket > Timetable > Signal > Track > Luggage. Keep leading zeroes.

Snow Train Celebration

HOST ONLY - timeline and paper check

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

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

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

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

5 minutes: Solve Ticket; 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! Snow Train Celebration 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.

Snow Train Celebration

Player clue 1: Timetable | Team 1

Welcome, birthday explorers! Deliver the party banners to the right train carriage. Find five badge numbers. Use them on the last page. You can help each other and ask me for hints.

Use the BEFORE rules to put the four cards in order. Take the number on card 4.

Build the model [0]

Draw a plan [5]

Show the model [2]

Gather paper [7]

Draw a plan BEFORE Gather paper

Gather paper BEFORE Build the model

Build the model BEFORE Show the model

Read position 4 (positions start at 1).

Timetable badge: _____

Snow Train Celebration

Player clue 2: Track | Team 1

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

Start after badges: Timetable.

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

down > right > right > up > right

One arrow = one square. S = start.

Track badge: _____

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Player clue 3: Luggage | Team 1

Every parcel weighs the same whole number from 1 to 9. Use the balance rule to find the weight of ONE parcel.

Start after badges: Timetable.

3 parcels + 1 loose units = 7 units



One parcel = ? units. Whole numbers 1-9.

All parcels have equal weight.

Luggage badge: _____

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Player clue 4: Ticket | Team 1

Find the card with the same shape AND marking as the target. Copy its digit.

Start after badges: Timetable.

TARGET: circle, dots



circle / dots - digit 8



triangle / dots - digit 1



circle / plain - digit 3

Ticket badge: _____

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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: _____

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Player clue 6: Final | Team 1

Follow the arrows from Start to Finish, visiting every required stop once. Read each stop badge digit in route order.

Start > Stop 1 OR Dead end

Stop 1 (Ticket) > Stop 2

Stop 2 (Timetable) > Stop 3

Stop 3 (Signal) > Stop 4

Stop 4 (Track) > Stop 5

Stop 5 (Luggage) > Finish

Required: Stop 1, 2, 3, 4, 5. Dead end has no exit.

Final badge: _____

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

Snow Train Celebration

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

1. Timetable

Use the written rules rather than the printed card order.

2. Track

Start at the top-left S square.

3. Luggage

All parcels have the same weight.

4. Ticket

Compare two properties.

5. Signal

The same symbol always means the same letter.

6. Final

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

Snow Train Celebration

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

1. Timetable

Find the card that has no earlier card.

2. Track

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

3. Luggage

Remove the loose weight from the total first.

4. Ticket

First find the same shape, then compare the marking.

5. Signal

Write one letter under every symbol.

6. Final

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

Snow Train Celebration

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

1. Timetable

Place each card immediately after its predecessor; count positions from one.

2. Track

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

3. Luggage

Share the remaining weight equally among the parcels.

4. Ticket

Reject cards that agree on only one property.

5. Signal

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

6. Final

Start with the Ticket badge, then follow the printed rule.

Snow Train Celebration

Team 1 badge record (no cutting needed)

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

Timetable: _____

Track: _____

Luggage: _____

Ticket: _____

Signal: _____

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

Snow Train Celebration

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.

Snow Train Celebration

You're invited to a birthday mystery!

Join Birthday Explorer for Snow Train Celebration.

Deliver the party banners to the right train carriage.

Date: _____

Time: _____

Place: _____

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

Designed for ages 7-9. Estimated 35-45 minutes.

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Snow Train Celebration

Birthday Mystery Explorer

Presented to Birthday Explorer

Team member: _____

For completing Snow Train Celebration with curiosity,
teamwork and kindness.

Mission complete! Snow Train Celebration is ready for its birthday
celebration. Thank your team for sharing ideas and helping one
another.

Date: _____

Host signature: _____

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