

Mars Greenhouse Registry

HOST ONLY - preparation and story

Includes answers. Keep these pages with an adult.

The greenhouse desk mixed three caretakers' seed records with a cancelled delivery. Match each caretaker, decode the seed note and check the planting slots. Collect five named badge digits and use the final sheet. Every clue is on the table; ask the host for one hint at a time.

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.

Paper and pencils are enough. Keep whole sheets at one table; nothing needs cutting, folding or hiding.

Mars Greenhouse Registry

HOST ONLY - solution guide

1. Seed: 8

Only row 3 has SEED followed immediately by 8. Other rows have changed or reversed letters.

2. Keeper: 2

Ava has Corn; Jae has Bean; Luis has Pea. Luis's item gives 2.

3. Delivery: 5

Known stock: $8 + 3 - 3 = 8$. Closing stock 13 minus 8 gives the missing return 5. Cancelled +7 never arrived.

4. Plot: 8

B1, C2, C2, D3 reads SEED. The conversion table gives 8.

5. Weight: 2

Remove 1 from 7; share 6 among 3 parcels to get 2. Check $2 \times 2 + 3 = 7$.

6. Final: 02517

Only Record B matches all five columns. Copy its printed code 02517.

Mars Greenhouse Registry

HOST ONLY - timeline and paper check

3 minutes: Read the story, show the badge record and choose roles.

undefined minutes: Solve Seed. Offer one hint level at a time if wanted.

6 minutes: Solve Keeper. Offer one hint level at a time if wanted.

5 minutes: Solve Delivery. Offer one hint level at a time if wanted.

5 minutes: Solve Plot. Offer one hint level at a time if wanted.

5 minutes: Solve Weight. Offer one hint level at a time if wanted.

5 minutes: Use the five results on the final sheet.

2 minutes: Read the ending and thank each teammate.

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

The planting record is restored. The team can sketch its paper Mars garden. Thank your team for checking the evidence together. Confirmed: Record B, code 02517.

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

Mars Greenhouse Registry

Player clue 1: Seed | Team 1

The greenhouse desk mixed three caretakers' seed records with a cancelled delivery. Match each caretaker, decode the seed note and check the planting slots. Find five badge digits, then use the final sheet. Help each other and ask for hints.

Seed desk: Find the exact word SEED, reading RIGHT only. Reject near matches and reversed words. Copy the digit immediately after it.

Find SEED; only read to the RIGHT.

S	E	E	X	8	A	B	C
D	E	E	S	2	A	B	C
S	E	E	D	8	D	E	F
C	A	M	P	9	S	U	N

Answer = digit in the next square after the word.

Seed badge: _____

Mars Greenhouse Registry

Player clue 2: Keeper | Team 1

Keeper desk: Each person has ONE different item. Use all four NOT rules. Find Luis's item and copy its digit.

Pea

digit 2

Bean

digit 5

Corn

digit 8

People: Ava, Jae, Luis

Ava does NOT have Bean.

Jae does NOT have Corn.

Jae does NOT have Pea.

Luis does NOT have Corn.

Find Luis's item. Each item is used once.

Keeper badge: _____

Mars Greenhouse Registry

Player clue 3: Delivery | Team 1

Delivery desk: A return entry lost its amount. Use the opening and closing stock to find the missing return. Apply DONE entries; ignore the CANCELLED plan.

Opening stock: 8. Closing stock: 13.

Received: +3 DONE

Planned: +7 CANCELLED

Issued: -3 DONE

Returned: ? DONE

Missing return = ? units. Ignore cancelled plans.

Delivery badge: _____

Mars Greenhouse Registry

Player clue 4: Plot | Team 1

Plot desk: Read the letter at each coordinate, in order. Letter = column; number = row. Convert the complete word using the printed table.

Columns: A, B, C, D. Rows: 1, 2, 3.

1	B	S	H	L
2	G	K	E	R
3	M	Q	T	D

SEED = 8

BEAM = 1

DOCK = 4

READ COORDINATES IN ORDER:

B1 > C2 > C2 > D3

Plot badge: _____

Mars Greenhouse Registry

Player clue 5: Weight | Team 1

Weight desk: Every parcel has the same whole-number weight. Remove loose units, find ONE parcel and check the second rule.

3 parcels + 1 loose units = 7 units



2 parcels + 3 loose units = 7 units

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

All parcels have equal weight.

Weight badge: _____

Mars Greenhouse Registry

Player clue 6: Final | Team 1

Compare each record with ALL five badge results. Find the one record matching every column. Copy its complete code, including the first zero.

C1=Seed / C2=Keeper / C3=Delivery

C4=Plot / C5=Weight

Record A: 02507

C1=9 C2=2 C3=5 C4=8 C5=2

Record B: 02517

C1=8 C2=2 C3=5 C4=8 C5=2

Record C: 02527

C1=8 C2=3 C3=5 C4=8 C5=2

Record D: 02537

C1=8 C2=2 C3=6 C4=8 C5=2

Record E: 02547

C1=8 C2=2 C3=5 C4=9 C5=2

Record F: 02557

C1=8 C2=2 C3=5 C4=8 C5=3

Final badge: _____

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

Mars Greenhouse Registry

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

1. Seed

Start at S and check every letter.

2. Keeper

No item can belong to two people. Cross out each forbidden pairing.

3. Delivery

The missing amount is a return into stock. The cancelled delivery never happened.

4. Plot

Columns A-D run left to right. Rows 1-3 run top to bottom.

5. Weight

Loose units are not parcels. Every parcel has equal weight.

6. Final

Keep all five named badge results beside this sheet.

Mars Greenhouse Registry

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

1. Seed

The exact word starts in row 3, column 1. Check its letters against the target.

2. Keeper

Jae cannot have two items, so Jae must have Bean.

3. Delivery

Start with 8. Apply +3 then -3. Ignore the cancelled +7.

4. Plot

The first coordinate B1 means column B, row 1. Its letter is S.

5. Weight

Remove 1 loose units from 7. That leaves 6 for the equal parcels.

6. Final

Use C1=Seed, C2=Keeper, C3=Delivery, C4=Plot, C5=Weight.

Mars Greenhouse Registry

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

1. Seed

In that row, copy column 5, the cell immediately after the complete word.

2. Keeper

Cross Bean off for the other two people. Apply the last NOT rule, then find Luis's item.

3. Delivery

The known entries leave 8. How much must return to reach the closing stock of 13?

4. Plot

Begin with S, then read C2, C2, D3 in order. Use the complete word's conversion row.

5. Weight

Share 6 equally among 3 parcels. Substitute one parcel's weight into the second rule.

6. Final

Each wrong record differs in just one column. Cross out all five wrong records, then copy the complete remaining code.

Mars Greenhouse Registry

Team 1 badge record (no cutting needed)

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

Seed: _____

Keeper: _____

Delivery: _____

Plot: _____

Weight: _____

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

Mars Greenhouse Registry

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.

Mars Greenhouse Registry

You're invited to a birthday mystery!

Join Birthday Explorer for Mars Greenhouse Registry.

Unlock the correct planting record for the Mars greenhouse.

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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Mars Greenhouse Registry

Birthday Mystery Explorer

Presented to Birthday Explorer

Team member: _____

For completing Mars Greenhouse Registry with curiosity,
teamwork and kindness.

The planting record is restored. The team can sketch its paper Mars
garden. Thank your team for checking the evidence together.

Confirmed: Record B, code 02517.

Date: _____

Host signature: _____

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