Art Studio Color Case

HOST ONLY - preparation and story

Includes answers. Keep these pages and all hint pages with the adult host.

Welcome to the art studio. Storage labels use shapes and words, so the case can be solved on a black-and-white printout. Your team has the original records on the table. First recover five pieces of information, then use the final plan to locate the shape-print exhibit. Keep every result beside its badge so another teammate can check your reasoning.

1. Print the six player sheets and two record sheets for each team. Keep answers and hints with the host.

2. Lay out Print receipts, Supply cards, the remaining clue sheets and the final plan. All task records are printed inside the sheets; no extra prop is needed.

3. After each clue, pass roles one seat clockwise. With two players, combine Reader with Recorder and Checker with Builder. With five or six, add a second checker and a source finder; everyone explains one decision.

4 players; 1 team. Give each team 6 player sheets and 2 record sheets. Share one host guide and one set of three hint levels.

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

Optional: 4 invitations or certificates, only if selected.

Art Studio Color Case

HOST ONLY - solution guide

1. Record: KITE

Check source status first, then join the matching tag and bay. The useful information comes from separate records, not their printed row order. Result: KITE.

2. Kit: A-B

Compare coverage before weight. Only complete kits qualify; minimize their combined weight and report the selected cards in alphabetical order. Result: A-B.

3. Shelf: 7

C2, D3, A2, B3 reads ARTS. The conversion table gives 7. Result: 7.

4. Stock: 1

Known stock: 11 + 4 - 1 = 14. Closing stock 15 minus 14 gives the missing return 1. Cancelled +7 never arrived. Result: 1.

5. Frame: 4

Remove 1 from 9; share 8 among 2 parcels to get 4. Check 2 x 4 + 3 = 11. Result: 4.

6. Final: BAY-G

Translate each recovered result through its named evidence key. Each location must match all five recovered features. Both values occur equally often in each column, so the location plan alone cannot identify the answer. Checked result: BAY-G.

Art Studio Color Case

HOST ONLY - timeline, story and ending

3 minutes: Read the opening. Show the evidence record and choose starting roles.

5 minutes: Solve Record. Offer one hint at a time and rotate roles after checking.

5 minutes: Solve Kit. Offer one hint at a time and rotate roles after checking.

5 minutes: Solve Shelf. Offer one hint at a time and rotate roles after checking.

5 minutes: Solve Stock. Offer one hint at a time and rotate roles after checking.

5 minutes: Solve Frame. Offer one hint at a time and rotate roles after checking.

7 minutes: Build the evidenced location using all five results.

3 minutes: Read the ending. Ask each teammate to explain one rejected alternative.

After Kit: A checked entry can explain one feature, while another source can still rule out a near match. Pass the record sheet to a new checker before opening the next clue.

After Stock: Four results are recorded. Each teammate points to a source supporting one result. Complete the fifth check before building the evidenced location.

Check every result using the solution guide. Offer the next hint only when requested; save the answer reveal until the group is ready.

The team finds the shape-print exhibit at BAY-G. Thank each teammate for a different piece of reasoning.

Explain one tempting wrong choice and the evidence that ruled it out. Show how each of the five results affected the evidenced location. If a clue is missing, say what remains uncertain before reopening that sheet.

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

Art Studio Color Case

Player clue 1: Record | Team 1

Storage labels use shapes and words, so the case can be solved on a black-and-white printout. We will use the records on the table to locate the shape-print exhibit. Share the reading, explain each choice and keep the five results for the final plan.

Use the print receipts and frame book to follow the completed record. Match printed keys, then report the requested field. A planned or cancelled entry cannot prove a move.

Print receipts
item: Rack | tag: PINE | status: cancelled
item: Cabinet | tag: WAVE | status: draft
item: Stand | tag: STAR | status: checked
Frame book
tag: STAR | bay: NORTH
tag: PINE | bay: EAST
tag: WAVE | bay: WEST
Artist note
bay: WEST | seal: RING
bay: NORTH | seal: KITE
bay: EAST | seal: LEAF
Cross-check
Match A.tag to B.tag.
Match B.bay to C.bay.
A.status is checked.
Report C.seal.

Record result: _____

Art Studio Color Case

Player clue 2: Kit | Team 1

Pack a kit that supplies all three needs. One card may cover two needs, but its weight is counted once. Choose the lightest complete kit within the carrier limit. Report its card letters alphabetically.

Supply cards

A: weight 3; gives tie+light

B: weight 2; gives mark

C: weight 2; gives tie

D: weight 4; gives light+mark

E: weight 7; gives tie+light+mark

Packing order

Capacity 7; must cover tie, light, mark.

Use the lightest complete kit. Each card once.

Write chosen card IDs alphabetically, with hyphens.

Kit result: _____

Art Studio Color Case

Player clue 3: Shelf | Team 1

Shelf 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	**U**	**X**	**A**	**D**
2	**T**	**C**	**A**	**J**
3	**E**	**S**	**L**	**R**

ARTS = 7

CASE = 0

VASE = 3

READ COORDINATES IN ORDER:

C2 > D3 > A2 > B3

Shelf result: _____

Art Studio Color Case

Player clue 4: Stock | Team 1

Stock 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: 11. Closing stock: 15.

Received: +4 DONE
Planned: +7 CANCELLED
Issued: -1 DONE
Returned: ? DONE

Missing return = ? units. Ignore cancelled plans.

Stock result: _____

Art Studio Color Case

Player clue 5: Frame | Team 1

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

2 parcels + 1 loose units = 9 units

2 parcels + 3 loose units = 11 units

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

All parcels have equal weight.

Frame result: _____

Art Studio Color Case

Player clue 6: Final | Team 1

Use each recorded result in the evidence key to learn one feature. Compare all five features with the location plan. Report the one location ID supported by every source, then explain why a nearby alternative fails.

Use your results from: Record, Kit, Shelf, Stock, Frame.

Location plan
BAY-C: leaf / south / stone / lower / square
BAY-D: leaf / south / wood / upper / round
BAY-E: ring / south / stone / upper / square
BAY-F: leaf / north / wood / upper / square
BAY-G: leaf / north / wood / upper / round
BAY-H: ring / south / wood / lower / square
BAY-I: leaf / north / stone / upper / round
BAY-J: ring / south / stone / lower / round
BAY-K: ring / north / wood / upper / round
BAY-L: ring / south / stone / lower / square
BAY-A: leaf / north / wood / lower / round
BAY-B: ring / north / stone / lower / square
Column order and evidence key
Stamp (Record): KITE=leaf; RING=ring
Door (Kit): A-B-C=south; A-B=north
Surface (Shelf): 0=stone; 7=wood
Level (Stock): 1=upper; 8=lower
Seal (Frame): 1=square; 4=round

Final result: _____

Ask your host to check your final result and read the ending.

Art Studio Color Case

Hint level 1 - HOST ONLY

1. Record

Start with the status field in Print receipts.

2. Kit

Read each supply card and the three required needs.

3. Shelf

Find the column letters and row numbers on the grid.

4. Stock

Find opening stock, closing stock and the DONE or CANCELLED marks.

5. Frame

Find the equal parcels and the separate loose units.

6. Final

Keep the five named results beside the final plan and find the key for each badge.

Art Studio Color Case

Hint level 2 - HOST ONLY

1. Record

The tag links an item to a bay; rows in separate records need not line up.

2. Kit

A light card alone may leave a need uncovered; a shared supply counts for both needs.

3. Shelf

A coordinate gives column first and row second; keep the printed coordinate order.

4. Stock

Only completed entries change stock. A cancelled plan cannot be added or subtracted.

5. Frame

Remove the loose units before sharing the remaining weight among equal parcels.

6. Final

Each badge controls a different fact, road leg, order note, pulse or habitat layer. Use the matching key exactly once.

Art Studio Color Case

Hint level 3 - HOST ONLY

1. Record

Keep only entries meeting every status test. Follow each printed join to the report field; do not guess from row position.

2. Kit

Compare complete combinations, adding each chosen card weight once. Reject any combination over the limit before choosing the lightest.

3. Shelf

Read the full word before using the conversion table. If the word is missing, recheck each row and column rather than choosing a similar word.

4. Stock

Apply every known completed change to opening stock. Compare that result with closing stock to recover the missing completed return.

5. Frame

Find one parcel from the first equation, then substitute that weight into the second equation before recording it.

6. Final

Check the completed product against all five recovered facts. If two answers remain, locate the fact that distinguishes them rather than guessing.

Art Studio Color Case

Team 1 result record

Write the complete result from each clue. Results can be words, routes, orders, settings or numbers.

Record: _____

Kit: _____

Shelf: _____

Stock: _____

Frame: _____

Keep this record beside the final clue. Copy results exactly, including any leading zero.

Reader / Recorder / Evidence checker / Route or model builder

After each clue, pass roles one seat clockwise. With two players, combine Reader with Recorder and Checker with Builder. With five or six, add a second checker and a source finder; everyone explains one decision.

Art Studio Color Case

Team 1 final result and celebration

Our final challenge: Final

We combined our earlier clues to decide:

_____

_____

We know it works because:

_____

_____

Host: compare the result with your solution guide. Read the ending when it matches, then let the team explain one discovery.

No physical lock or prize is required. Draw a celebration star here if you like.

Art Studio Color Case

You're invited to a mystery!

Join Birthday Explorer for Art Studio Color Case.

Storage labels use shapes and words, so the case can be solved on a black-and-white printout. Work together to locate the shape-print exhibit.

Date: _____

Time: _____

Place: _____

Bring your curiosity. Paper and pencils are provided. Share ideas and solve six clues together.

Designed for ages 8-10. Estimated 35-50 minutes.

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Mystery Explorer

Presented to Birthday Explorer

Team member: _____

For completing Art Studio Color Case with curiosity, teamwork and kindness.

The team finds the shape-print exhibit at BAY-G. Thank each teammate for a different piece of reasoning.

Date: _____

Host signature: _____

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