

Pond Neighbor Network

HOST ONLY - preparation and story

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

Welcome to the fictional pebble pond. One pond visitor needs both foods while another can use either, so the food web must be read carefully. Your team has the original records on the table. First recover five pieces of information, then use the final plan to build the pond-neighbor habitat. 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 Pebble-pond food web, Fictional field 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.

Pond Neighbor Network

HOST ONLY - solution guide

1. Food: DART

Start with LEAF+ALGAE. Newly supported in order: NIB+SKIM > DART. DART needs NIB AND SKIM; that rule is met. Other listed targets remain unsupported.

2. Habitat: MOSS

Compare feature values across all field cards. Apply positive and negative requirements together; only one complete feature set remains. Result: MOSS.

3. Record: ALGAE

Apply A.status is checked and B.season is RAIN. Join A.tag with B.tag; A.patch with C.patch. The remaining C.food is ALGAE.

4. 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.

5. Signal: WAIT-TURN

A consistent one-to-one mapping satisfies every training example. Use the complete mapping to read the two-signal message in order. Result: WAIT-TURN.

6. Final: R1-F2-W1-D2-E1

Each recovered field result sets one separate habitat requirement. Match all five layers; a complete plan must include suitable cover, ground, water, food and access. Checked result: R1-F2-W1-D2-E1.

Pond Neighbor Network

HOST ONLY - timeline, story and ending

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

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

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

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 Signal. Offer one hint at a time and rotate roles after checking.

7 minutes: Build the five-part habitat design using all five results.

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

After Habitat: A suitable roof does not guarantee suitable food or water. Keep each habitat need beside its field evidence. Pass the record sheet to a new checker before opening the next clue.

After Kit: Four results are recorded. Each teammate points to a source supporting one result. Complete the fifth check before building the five-part habitat design.

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

The paper model uses parts R1-F2-W1-D2-E1, with every habitat layer matched to its evidence. 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 five-part habitat design. 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.

Pond Neighbor Network

Player clue 1: Food | Team 1

One pond visitor needs both foods while another can use either, so the food web must be read carefully. We will use the records on the table to build the pond-neighbor habitat. Share the reading, explain each choice and keep the five results for the final plan.

Use only the fictional food-web rules printed here. Start with the food available now. A creature becomes available when its food rule is met. Find which named visitor can live here; a loop cannot create its own first food.

Pebble-pond food web

NIB needs LEAF

SKIM needs ALGAE

DART needs NIB AND SKIM

GLOW needs SKIM AND SEED

PEEP needs GLOW OR BERRY

Starting conditions

Available now: LEAF, ALGAE.

A result becomes available when its needs are met.

Which of DART, GLOW, PEEP becomes available?

Food result: _____

Pond Neighbor Network

Player clue 2: Habitat | Team 1

These are fictional field cards for a paper model. Compare all the recorded conditions with the habitat requirements. A card that passes only one rule is not enough. Report the one card that meets every rule.

Fictional field cards

FERN: light=shade; floor=dry; entry=wide

MOSS: light=sun; floor=damp; entry=narrow

REED: light=shade; floor=damp; entry=wide

BIRCH: light=shade; floor=damp; entry=narrow

CEDAR: light=sun; floor=damp; entry=wide

Required features

light must not be shade.

entry must be narrow.

Report the one matching card ID.

Habitat result: _____

Pond Neighbor Network

Player clue 3: Record | Team 1

Two visitor records are checked, but this survey needs the rainy-season visit. Match each tag to its season, keep the checked rainy-season record, then follow its patch to the food book and report the food.

Visitor tags

visitor: NIB | tag: K | patch: POOL | status: checked

visitor: PEEP | tag: L | patch: BANK | status: checked

visitor: GLIM | tag: M | patch: REED | status: cancelled

Visit seasons

tag: K | season: RAIN

tag: L | season: DRY

tag: M | season: RAIN

Patch foods

patch: REED | food: SEED

patch: POOL | food: ALGAE

patch: BANK | food: LEAF

Cross-check

Match A.tag to B.tag.

Match A.patch to C.patch.

A.status is checked.

B.season is RAIN.

Report C.food.

Record result: _____

Pond Neighbor Network

Player clue 4: 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: _____

Pond Neighbor Network

Player clue 5: Signal | Team 1

Recover the complete desk-signal legend from the training cards. Compare which signals and words appear together across the cards; word order on a card is not a clue. Decode the received message in order. The desk uses this message when handling a pond-neighbor habitat.

Unlabelled legend

Signals: DOT, BAR, ARC, RING. Words: WAIT, SEND, TURN, REST.

Each signal has one word; each word is used once.

Training messages

DOT+BAR means SEND+TURN (any order)

ARC+RING means REST+WAIT (any order)

DOT+ARC means SEND+REST (any order)

Received message

RING > BAR

Report decoded words in order, with hyphens.

Signal result: _____

Pond Neighbor Network

Player clue 6: Final | Team 1

Recover one requirement for each habitat layer from its named result. Choose a matching roof, floor, water source, food and entry. Write the five part IDs in the printed layer order, then point to the evidence supporting each choice.

Use your results from: Food, Habitat, Record, Kit, Signal.

Habitat construction key

Roof (Food): DART=shade; GLOW=sun

Floor (Habitat): FERN=dry; MOSS=damp

Water (Record): ALGAE=still; SEED=flow

Food (Kit): A-B-C=leaf; A-B=seed

Entry (Signal): WAIT-TURN=wide; WAIT-SEND=narrow

Parts (one per layer, top to bottom)

Roof: R1=shade; R2=sun

Floor: F2=damp; F1=dry

Water: W1=still; W2=flow

Food: D2=seed; D1=leaf

Entry: E1=wide; E2=narrow

Build rule

Choose each part meeting its recovered requirement.

Report five part IDs top to bottom, with hyphens.

Final result: _____

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

Pond Neighbor Network

Hint level 1 - HOST ONLY

1. Food

Start at the available-now line in Pebble-pond food web.

2. Habitat

Place a finger on the same feature in each field card.

3. Record

Read Visitor tags, Visit seasons, Patch foods and the printed cross-check rules.

4. Kit

Read each supply card and the three required needs.

5. Signal

Look at the training cards that share one signal.

6. Final

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

Pond Neighbor Network

Hint level 2 - HOST ONLY

1. Food

AND needs every input; OR needs one. A circular pair cannot create its first input.

2. Habitat

A "must not" rule removes a match; it does not ask you to look for that feature.

3. Record

The join fields connect records. A shared tag is not enough unless every printed filter also matches.

4. Kit

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

5. Signal

In an unordered pair, a word cannot be assigned by its left/right position. Use the overlap with another pair.

6. Final

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

Pond Neighbor Network

Hint level 3 - HOST ONLY

1. Food

Mark newly supported results in rounds. Repeat until no further result can be marked, then compare only the listed targets.

2. Habitat

Test every remaining card against all requirements. Explain the particular requirement each rejected card fails.

3. Record

Keep all rows that pass the filters, follow each join and read only the requested report field. Check which source rejects each near match.

4. Kit

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

5. Signal

Give each signal a different word, check every training example and only then decode the received message in its printed order.

6. Final

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

Pond Neighbor Network

Team 1 result record

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

Food: _____

Habitat: _____

Record: _____

Kit: _____

Signal: _____

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.

Pond Neighbor Network

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.

Pond Neighbor Network

You're invited to a mystery!

Join Birthday Explorer for Pond Neighbor Network.

One pond visitor needs both foods while another can use either, so the food web must be read carefully. Work together to build the pond-neighbor habitat.

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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Pond Neighbor Network

Mystery Explorer

Presented to Birthday Explorer

Team member: _____

For completing Pond Neighbor Network with curiosity,
teamwork and kindness.

The paper model uses parts R1-F2-W1-D2-E1, with every habitat layer
matched to its evidence. Thank each teammate for a different piece of
reasoning.

Date: _____

Host signature: _____

Pond Neighbor Network

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