

Grade 8 Foundation Starter — Parent guide and keys

Five parent-led sessions, approximately 60–90 minutes each with breaks. This is a supplemental starter sequence, not a complete homeschool curriculum or a full day of school. No login, child account, uploads or payment are required to use these starter pages. Print at home; postal delivery is not included.

Before you begin

Review the material for your learner. Prerequisites: read short passages, use the four operations and negative numbers, and substitute into simple expressions. If these are not accessible yet, use shorter read-aloud sections and explicit arithmetic practice; request a different-level plan rather than assigning the Grade 8 label by age alone.

Use sessions 1–5 in order: concept launch, guided application, workbook practice, tutorial/repair, independent proof. For the planned October 12 week, use Monday October 12 through Friday October 16. A print-first family can begin session 1 today and set its own subsequent dates. This is a parent-led sequence; it does not reserve live instruction.

Feedback and mastery

For daily work, mark each item Ready, Repair or Supported. On session 5, items 1–3 and 5–10 receive 0–2 points each: 2 accurate with reasoning, 1 partial or correct answer without needed reasoning, 0 missing/incorrect. Item 4 receives 2 for all four spellings, 1 for two or three, 0 for fewer. Total 20. Suggested readiness for this packet: at least 16/20 plus an accurate checked linear rule, an evidence-based reading explanation and a fair-test explanation. This is a local practice criterion, not a standardized grade. If any condition is missing, reteach it and check a fresh example.

Do not turn this practice score into school credit or an attendance claim. Keep completed work privately with your family; do not upload it on the public request form. A parent may read aloud, enlarge text, allow typed responses or allow extra time, recording support separately from independent performance.

1. Notice the pattern

Mission: Distinguish observations from inferences; find a constant rate; support a claim with text.

Suggested session: 10 minutes reading/discussion, 15 minutes model, 25–40 minutes practice, 10 minutes review and exit; shorten or split as needed.

1. Observation: three trays / one lacks a label. Inference: Jon thinks the third tray belongs to their team.
2. Accept an accurate theme about checking assumptions or responsible use, supported by Mara's refusal to assume and her review of the sign-out sheet.
3. "The tray was unlabelled. Jon wanted to move it." Or "The tray was unlabelled, and Jon wanted to move it." A correct semicolon also works.
4. $m = 2$, $b = 5$; $y = 2x + 5$. At $x = 3$, $y = 11$.
5. $y = 21$ dollars for 8 trays.
6. Ownership cannot be established from the missing label; the sign-out sheet records the reservation.

Exit: $y = 2x + 6$; \$2 per tray and \$6 fixed cost. Records help avoid taking another group's materials.

Repair and retry

Ask the learner to explain the error before repeating. New parallel math check: points (0, 4) and (2, 14) give $y = 5x + 4$; at $x = 3$, $y = 19$. Ask for a new evidence-based sentence using the passage, not a copy of the key.

2. Build a rule and a fair test

Mission: Find rate with unequal x-steps; distinguish changed, measured and controlled variables.

Suggested session: 10 minutes reading/discussion, 15 minutes model, 25–40 minutes practice, 10 minutes review and exit; shorten or split as needed.

1. Both water and light changed, so either could explain a difference.
2. Independent: daily light exposure. Dependent: plant height after a specified period, for example. Controls: seed variety, water, soil, container, period.
3. Accept a measurable prediction that changes light and names a result plus a reason. The outcome remains uncertain.
4. $m = 6/3 = 2$; $b = 7$; $y = 2x + 7$. Values 11 and 17 verify.
5. $m = 3$, $b = 5$; $y = 3x + 5$; at $x = 7$, $y = 26$.
6. Example: “Although the teams expected different results, they used the same measurement method.”

Exit: $y = 4x + 2$. y rises 8 while x rises 2, so the per-unit rate is $8/2 = 4$.

Repair and retry

Ask the learner to explain the error before repeating. New parallel math check: points (0, 4) and (2, 14) give $y = 5x + 4$; at $x = 3$, $y = 19$. Ask for a new evidence-based sentence using the passage, not a copy of the key.

3. Apply the evidence

Mission: Compare linear costs; separate a data-supported claim from a stronger unsupported claim.

Suggested session: 10 minutes reading/discussion, 15 minutes model, 25–40 minutes practice, 10 minutes review and exit; shorten or split as needed.

1. At 2 trays $A = \$10$, $B = \$14$, so B is not always cheaper.
2. At 0: A4/B10 (A); at 4: A16/B18 (A); at 6: A22/B22 (equal); at 8: A28/B26 (B).
3. At an order of 6 trays both total costs equal \$22.
4. A mean = $18/3 = 6$ cm. B mean = $21/3 = 7$ cm. Difference = 1 cm.
5. Example: B has a higher mean in this fictional set. Its mean is 7 cm compared with 6 cm in A. This difference describes these samples, but the small set cannot establish a universal result.
6. “Condition B had the higher mean height in this example; more controlled observations would be needed to generalize.”

Exit: Fixed costs can outweigh the unit-price saving. Small samples or uncontrolled differences limit generalization.

Repair and retry

Ask the learner to explain the error before repeating. New parallel math check: points (0, 4) and (2, 14) give $y = 5x + 4$; at $x = 3$, $y = 19$. Ask for a new evidence-based sentence using the passage, not a copy of the key.

4. Repair, explain and decide

Mission: Locate mistakes, correct them with reasons, and propose a fair shared-resource process.

Suggested session: 10 minutes reading/discussion, 15 minutes model, 25–40 minutes practice, 10 minutes review and exit; shorten or split as needed.

1. He preserved the original entry, identified the error, recorded the correction and verified with repeated addition. Accept two with reasoning.
 2. Delta $y = 6$ but delta $x = 2$; $m = 3$. $9 = 3(2) + b$ gives $b = 3$. Rule $y = 3x + 3$.
 3. Correct: multiplication first gives 12, then add 5 to obtain 17.
 4. Example: “We compared the fixed fees because the costs were different.”
 5. Accept a workable sequence including advance reservation, transparent record, accessible way to request, and review of disputes without assuming ownership.
 6. Check the actual problem and reasoning; a copied answer alone is insufficient.
- Exit: $y = 4x + 3$; $(11 - 3)/(2 - 0) = 4$, with start value 3. Fair-process answers may include hearing affected people or keeping a shared record.

Repair and retry

Ask the learner to explain the error before repeating. New parallel math check: points (0, 4) and (2, 14) give $y = 5x + 4$; at $x = 3$, $y = 19$. Ask for a new evidence-based sentence using the passage, not a copy of the key.

5. Prove and plan the next step

Mission: Demonstrate the week's skills independently and use errors to choose next learning.

Suggested session: 10 minutes reading/discussion, 15 minutes model, 25–40 minutes practice, 10 minutes review and exit; shorten or split as needed.

1. Accept a theme such as “Responsible planning considers maintenance as well as quantity,” supported by the unused trays and the purchase of labels with a later review. Require explanation, not plot summary alone.
2. Observation: two unlabelled trays went unused. Inference: clearer labels may help trays be used correctly. The passage does not prove labels were the only cause.
3. Use a period, semicolon, or comma plus a coordinating conjunction between the two independent clauses.
4. Check all four spellings; teach missed word parts and retry.
5. $m = 3$, $b = 7$; $y = 3x + 7$. At $x = 4$, $y = 19$.
6. $m = 2$, $b = 4$; $y = 2x + 4$; at $x = 8$, $y = 20$.
7. $4x + 3 = 2x + 11$ gives $x = 4$ and $y = 19$. At 6 trays, $A = 27$ and $B = 23$; B costs less.
8. IV: daily light duration. DV: plant height at day 14. Controls: seed variety, water, soil, pot size or temperature.
9. Means: 7 cm and 8 cm. The small invented sample does not prove a universal effect or real-world outcome.
10. Accept review of usage/label records, feedback from learners and people maintaining the trays, and a documented decision with a way to raise concerns.

Repair and retry

Ask the learner to explain the error before repeating. New parallel math check: points (0, 4) and (2, 14) give $y = 5x + 4$; at $x = 3$, $y = 19$. Ask for a new evidence-based sentence using the passage, not a copy of the key.

Private family progress log

Use a family-chosen learner code on your own copy. Keep it private. For each session record date, skills attempted, independent / supported work, evidence kept, repairs, and next step. Five completed sessions are not proof of a full year or automatic compliance with another institution's requirements.