

What they tried next

What did they try, why did it fail, and what did they try next?

Every day of this unit is a lesson that already has its own page, its worksheets and its teacher key. This unit is the order to teach them in, and why.

7 days 7 books 289 min in full 172 min short Grades 2-3

The idea

A solved problem teaches less than a problem attacked three times. These seven books all show the attempts - and in most of them the failures fail for different reasons, so the class can say what each attempt ruled out rather than simply that it did not work.

The unit is built on failures. Ben the Inventor's three plans fail for three completely different reasons; Princess Angelica's four attempts fail before the thing that caused the trouble turns out to fix it. A class reading only for the solution misses where the thinking happens.

One day is explicitly about widening the question rather than answering it as first posed. That is the move the unit most wants: Beatrice solves her decorations problem by asking a bigger question. Aaron's bike is different: a wrong explanation is tested and disproved, and the right explanation arrives from an observation made somewhere unexpected.

The arc

1. A problem is worth naming precisely before anything is tried
2. Several failures can fail for different reasons
3. A wrong explanation can be tested and disproved
4. Widening the question can solve it
5. Every idea can be heard, tested and combined
6. Improvisation can turn what is available into a solution
7. A problem can be solved without the solver explaining it

Where this fits

When to run it. Any time in Grades 2-3. It is a good opening unit for the chapter books, because it gives a class a reason to read on rather than a skill to apply.

What it assumes. Children can retell what happened in a chapter. The Grade 1 cause unit helps and is not required.

What it builds. Naming a problem precisely; tracking attempts and their distinct reasons for failing; disproving an explanation; recognising a problem

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solved by widening it.

What it leads to. The evidence unit, where a hypothesis has to be checked rather than tried.

The 7 days

- DAY 1 #### Problem and Solution: Plan A, Plan B and Plan C Set out Ben's three plans in order and say exactly why each one fails.

Why here. First, because the three failures are clearly separated and fail for genuinely different reasons. The class learns to number attempts before anything else.

From Ben the Inventor by Robin Stevenson · Three plans, and three completely different reasons for failing 45 min full 31 min short Makes: A one-sentence problem statement, then a three-row plan sheet: the plan, why it failed, and what it ruled out

- DAY 2 #### Problem and Solution: Four Things That Fail List the attempts to get the lioness out of the car, explain why each fails, and say what finally works.

Why here. Second: four things fail and the fifth is the thing that caused the trouble. It makes the point that attempts are evidence, not just delays.

From Princess Angelica, Part-Time Lion Trainer by Monique Polak

- A problem solved by the one thing that had caused all the trouble 43 min full22 min shortMakes: A five-row attempt sheet, plus a story map
- DAY 3 #### Problem and Solution: Why Aaron Kept Falling Off Collect what Reece observes, follow his two theories, and explain how the second one is tested.

Why here. Third, and the first with a wrong explanation properly disproved. The class stops discarding hypotheses and starts testing them.

From Where's Burgess? by Laurie Elmquist · A wrong hypothesis disproved, and a right one taken from something unrelated 43 min full29 min shortMakes: An observation list, then two theories and their tests

- DAY 4 #### Problem and Solution: Every Holiday Except This One Inventory the decorations Beatrice is stuck with, and explain the theme she invents to make them work.

Why here. Fourth: solved by widening the question and buying nothing. This is the unit's key move and it needs three days of narrower attempts behind it.

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From Beatrice More and the Perfect Party by Alison Hughes · A problem solved by widening the question instead of buying anything 43 min full22 min shortMakes: A two-column inventory, plus a diagram of the theme

- DAY 5 #### Problem and Solution: Five Ideas on the Board Set out the five solutions the class proposes with the objection to each, and explain how two of them are combined.

Why here. Fifth. Every idea written down and every objection heard, then two ideas joined. The class sees a group do what they have been doing individually.

From Badir and the Beaver by Shannon Stewart · Every idea written down, every objection heard, and two ideas joined 35 min full22 min shortMakes: A five-row idea sheet, plus a diagram of the combination

- DAY 6 #### Problem and Solution: What Wombat Makes Do With List the problems Wombat solves with what he happens to have, and explain how he gets out of the cage.

Why here. Sixth: ordinary objects used for jobs they were not packed for - improvisation as a method rather than as luck.

From Wombat Smith, Volume 1: Wombat Takes on Tasmania by Anne Sautel · Ordinary objects used for jobs they were not packed for 37 min full24 min shortMakes: A problem-and-solution list, ending with the cage

- DAY 7 #### Problem and Solution: The Goose He Missed on Purpose Explain the boy's worry, the present Stan gives him, and why the present solves it.

Why here. Last, and the quietest. A problem solved without the person having to explain it. A class that has spent six days on stated attempts can now read one that is never stated.

From Soapstone Porcupine by Jeff Pinkney · A problem solved without the person having to explain it 43 min full22 min shortMakes: A problem-and-solution sheet, ending with the whisper

Words to use

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Word	How it is used
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attempt Used instead of 'try' from day 2, so that attempts can be numbered and compared. rules The reason a failed attempt is worth recording. out widen

Day 4, for a question made bigger in order to be answerable.

What to prepare

- Checkpoint 1 page, one per child
- Checkpoint 2 page, one per child
- An attempts table, three columns by five response rows, per pair

Checkpoints

After day 3 · Three failures, three reasons Ben's three plans, listed. The child gives a different reason for each failure and says what each one ruled out.

Without a book. Three sentences on a page and no book.

Look for. Three distinct reasons. A child who gives the same reason twice has the sequence but not the analysis.

Say to the child. Why did each plan fail? Say a different reason for each. What did each failure rule out?

After day 7 · State the problem precisely A problem from any book in the unit. The child states it in one sentence precisely enough that somebody who has not read the book could suggest an attempt.

Without a book. A blank page and no book.

Look for. The sentence names what is wanted and what is in the way. Either half missing makes the problem unattackable.

Say to the child. Write the problem in one sentence. What is wanted, and what is stopping it?

The task at the end

The attempts table

Each pair takes one book and fills three columns for up to four book attempts: the attempt, why it failed, and what it ruled out. They then use the fifth row for an attempt nobody in the book made, predict why it might fail, and say what

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that failure would rule out. The class judges whether the invented attempt would still be worth making.

Collect. The table with its invented fifth row, and the class's verdict on it.

Time. One session of about 45 minutes.

Teacher key

- Checkpoint 1: the plans fail on materials, on physics and on somebody else's behaviour. Any three reasons that are genuinely different are acceptable.
- Checkpoint 2: a usable problem statement names both what is wanted and what is in the way. Naming only one half is incomplete because somebody who has not read the book still would not know what kind of attempt to suggest.
- Task: the invented attempt is the assessment. The predicted failure should rule out a specific possibility; a generic answer such as 'it wouldn't work' does not show that the elimination idea is understood.

What a strong answer looks like

Strand	What to see
Problem	States what is wanted and what is in the way.

Attempts	Tracks what was tried, in order.
Analysis	Gives a distinct reason for each failure.
Elimination	Says what a failed attempt ruled out.

Keeping the daily evidence

Keep each child's one-sentence problem statement from day 1 and the checkpoint statement from day 7. What should change is precision: an early statement that merely names what went wrong should become one that names both what is wanted and what is in the way.

What to pass on

- Children who gave one reason for all three failures at checkpoint 1 should be watched in the evidence unit, whose false-lead day depends on the same discrimination.
- Day 7 is easy to under-run. Soapstone Porcupine never says that the goose was missed deliberately, and a class told so loses the day entirely.

The books this unit uses

- Ben the Inventor by Robin Stevenson · 1 lesson

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- Wombat Smith, Volume 1: Wombat Takes on Tasmania by Anne

Sautel ·	1 lesson
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- Soapstone Porcupine by Jeff Pinkney · 1 lesson
 - Where's Burgess? by Laurie Elmquist · 1 lesson
 - Badir and the Beaver by Shannon Stewart · 1 lesson
 - Beatrice More and the Perfect Party by Alison Hughes · 1 lesson
 - Princess Angelica, Part-Time Lion Trainer by Monique Polak · 1 lesson
- What was considered and left out 65 lessons were available at this grade. These were wanted and not used:
- 5889 · an-ending-better-than-the-plan — Three failed plans and the neighbour who arrived because of them - the causal reading of the same three plans. It is day 5 of the cause unit, which needs an effect nobody planned.
 - 7469 · the-false-lead — Three accusations properly investigated.

Nearly this unit, and given to the evidence unit because what is being tested there is a claim rather than an attempt.

- 7111 · puppy-school — Three attempts that get shorter and a result arriving after they stop. The strongest lesson left unplaced in the band; the seven-day cap took it.

All ELA units

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