TEST NINJAS

ACT PRACTICE EXAM

STUDENT PRACTICE BOOKLET

Test Ninjas ACT Evaluation of Models & Results Skill Drill

SCIENCE · 10-QUESTION FOCUSED PRACTICE

10
QUESTIONS

1
SECTION

STUDENT NAME _____ DATE _____ INSTRUCTOR _____

PLAN YOUR SESSION

- Choose whether you will use the suggested section times or work without a timer.
- Keep your responses in the section you are currently completing.
- Record one answer per item and make any corrections unambiguous.
- Set the answer materials aside until your practice session is finished.

BOOKLET INFORMATION

SUGGESTED TIMING
Self-paced · no fixed limit

USEFUL MATERIALS
Writing tool · scratch paper

RESULTS
Unofficial practice feedback

SESSION CUE **Begin when your instructor or personal timer is ready.**

PUBLICATION NOTE
This booklet is an independently written practice resource. It is not an ACT test form, and results from it are not official scores.

STUDENT INITIALS

PRACTICE ASSESSMENT · 2026 EDITION

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Timing, content categories, and other exam specifications can change. Treat the booklet and any resulting performance estimate as practice information, not as an official administration or score report.

SCIENCE TEST

40 MINUTES—10 QUESTIONS

DIRECTIONS: Use the supplied studies, data displays, and competing explanations as your evidence. Compare variables, identify patterns, and evaluate what the results do—and do not—support.

Record one response for each item; if more than one choice seems plausible, select the one best supported by the material provided.

Investigation: Oxygen Declines After Rain

Fish in an urban pond sometimes moved to the surface after heavy rain, a behavior consistent with low dissolved oxygen (DO). Two researchers proposed models for the decline.

Researcher 1 — Nutrient-growth model. Storm runoff carries nitrate into the pond. Added nutrients stimulate algae; respiration by algae and decomposition of algal material then consume oxygen. This model predicts a delayed, pond-wide decline in DO accompanied by an increase in chlorophyll, an indicator of algal abundance.

Researcher 2 — Low-oxygen mixing model. Water in storm drains has low DO and enters rapidly at one inlet. Mixing immediately lowers pond DO, first near the inlet and later farther away. This model predicts an early spatial difference and an increase in turbidity, but it does not require algae to increase.

After a storm, researchers collected the following data.

Time relative to end of rain	Nitrate (mg/L)	Chlorophyll (µg/L)	Turbidity (NTU)	DO near inlet (mg/L)	DO far from inlet (mg/L)
Before rain	0.8	12	4	8.2	8.1
0.5 hour after	2.4	12	38	4.9	7.8
6 hours after	2.1	16	24	4.2	6.8
24 hours after	1.6	27	11	3.8	4.5
48 hours after	1.0	22	6	5.4	5.2

CONTINUE →

1. Which process is central to Researcher 1's model?

- **A.** Storm drains add oxygen faster than algae can use it.
- **B.** Turbidity prevents stormwater from entering the pond.
- **C.** Fish directly increase nitrate when they reach the surface.
- **D.** Nutrients promote algal activity that eventually consumes dissolved oxygen.

2. According to Researcher 2, why should DO initially be lower near the inlet than far from it?

- **F.** Algae grow only at the inlet.
- **G.** Low-oxygen stormwater enters at the inlet before mixing through the pond.
- **H.** Nitrate is removed at the inlet.
- **J.** Fish consume all oxygen far from the inlet.

3. Which observation would be inconsistent with both models?

- **A.** DO declines after rain.
- **B.** Nitrate rises after rain.
- **C.** DO remains unchanged everywhere after rain.
- **D.** Turbidity is temporarily greater after rain.

4. What is a principal difference between the researchers' models?

- **F.** Only Researcher 1 predicts any connection between rain and the pond.
- **G.** Researcher 1 predicts a delayed biological effect, whereas Researcher 2 predicts an immediate mixing effect.
- **H.** Only Researcher 2 predicts that DO can be measured.
- **J.** Researcher 1 discusses fish, whereas Researcher 2 denies that fish are present.

5. If nitrate were removed from runoff before it entered the pond, which prediction would Researcher 1 most likely make?

- **A.** The immediate turbidity increase would necessarily double.
- **B.** The pond would stop mixing near the inlet.
- **C.** DO would fall even if algae and decomposition were unchanged.
- **D.** The delayed chlorophyll increase and associated DO decline would be smaller.

6. Which result does Researcher 2's model predict but Researcher 1's model does not specifically require?

- **F.** A rapid DO decrease concentrated near the inlet
- **G.** An increase in chlorophyll after added nitrate
- **H.** Oxygen consumption during decomposition
- **J.** A delayed biological response

7. Which pattern in the table provides the strongest support for Researcher 1's model?

- **A.** Chlorophyll rose from 12 to 27 μg/L as DO far from the inlet fell over 24 hours.
- **B.** Turbidity was 4 NTU before the rain.
- **C.** DO near and far from the inlet were similar before rain.
- **D.** Nitrate declined from 1.6 to 1.0 mg/L between 24 and 48 hours.

8. Which pattern in the table provides the strongest support for Researcher 2's model?

- **F.** At 0.5 hour, DO was much lower near the inlet than far away while turbidity was high.
- **G.** Chlorophyll reached 27 μg/L after 24 hours.
- **H.** Nitrate was 0.8 mg/L before rain.
- **J.** The two DO readings were nearly equal after 48 hours.

9. Which conclusion is best supported by the full data set?

- **A.** Only Researcher 1's process could have occurred.
- **B.** Only Researcher 2's process could have occurred.
- **C.** The early data support mixing, and the later chlorophyll and DO changes are also consistent with a biological contribution.
- **D.** Neither model is consistent with any measured variable.

10. Which follow-up study would best help distinguish the 2 models' contributions?

- **F.** Measure DO only once, several weeks after a storm.
- **G.** Track DO, chlorophyll, and turbidity at several distances from the inlet at short intervals before and after multiple storms.
- **H.** Count fish at one location without measuring water conditions.
- **J.** Measure roof temperatures in neighborhoods outside the watershed.

SECTION COMPLETE · 4

Pause here and wait for the cue to begin the next section.
During timed practice, do not revisit a section after leaving it.

QUICK REFERENCE

Answer Key

Correct responses by section

SCIENCE · EVALUATION OF MODELS & RESULTS SKILL DRILL

1 D	2 G	3 C	4 G	5 D	6 F	7 A	8 F	9 C
10 G								

ENHANCED ACT PRACTICE

How ACT Scoring Works

Each subject begins with a raw score: the number of scored questions answered correctly. There is no penalty for a wrong answer. ACT then converts each raw score to a 1–36 section score using the conversion for that specific test form, which accounts for small differences in form difficulty.

Official Score Structure

The enhanced ACT Composite is based on English, Math, and Reading. Science is optional and does not enter the Composite; students who take it receive a Science score and a STEM score.

REPORTED MEASURE	HOW IT IS DETERMINED	OFFICIAL RANGE OR SCORED MAXIMUM
Raw subject score	Correct answers on scored questions	English 40 · Math 41 · Reading 27 · Science 34
Section score	A form-specific raw-to-scale conversion	1–36 for each subject
Composite score	Average of English, Math, and Reading; round to the nearest whole number	1–36
STEM score	Average of Math and Science when Science is taken	1–36

Composite Example

English 24 + Math 27 + Reading 26 = 77

77 ÷ 3 = 25.67, which rounds to a Composite score of **26**. A Science score, if present, does not change this calculation.

Practice-test limitation: Raw-to-scale tables belong to a particular ACT form. This Test Ninjas publication does not designate field-test items or use ACT's form-equating process, so its total correct count should be used to measure accuracy—not presented as an official 1–36 score. Use only the conversion table packaged with the exact official ACT practice form you completed.

ENHANCED ACT PRACTICE

ACT Composite National Ranks

A national rank is the percentage of recent ACT-tested high school graduates who earned that score or lower. These official ranks are based on graduates from 2023–2025 and apply to ACT scores reported for tests taken from September 2025 through August 2026. The mean Composite score in this reference group is 19.2.

Official Composite-Score Table

For example, a Composite score of 22 has a national rank of 72: 72% of the reference group scored 22 or below.

COMPOSITE	NATIONAL RANK	COMPOSITE	NATIONAL RANK
36	100	18	52
35	99	17	46
34	99	16	40
33	98	15	34
32	97	14	27
31	96	13	20
30	94	12	12
29	92	11	5
28	91	10	2
27	88	9	1
26	86	8	1
25	83	7	1
24	80	6	1
23	76	5	1
22	72	4	1
21	68	3	1
20	63	2	1
19	57	1	1

Interpret carefully: A national rank describes position within ACT's comparison group; it is not an admission probability, grade, or percentage of questions answered correctly. Colleges may use different score policies and comparison ranges.

Source: ACT National Ranks for English, Math, Reading, Science, Composite, and STEM Scores, 2025–26 reporting year. Values checked August 2026.

TEST NINJAS PRACTICE ASSESSMENT

End of Practice Assessment

Your practice booklet is complete. Check your work only after the timing conditions you selected have ended.

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