



TEST NINJAS

ACT PRACTICE EXAM

STUDENT PRACTICE BOOKLET

Test Ninjas ACT Scientific Investigation 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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Test Ninjas develops independently written study materials for structured practice, review, and classroom use.

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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.

Study: Dissolving Effervescent Tablets

Students measured the time from the moment an effervescent tablet touched water until no solid tablet was visible. Each condition was tested 5 times, and the mean time was recorded. All whole tablets came from the same package and had the same mass. Unless noted otherwise, each trial used 200 mL of water in the same type of beaker.

Experiment 1 — Water temperature, no stirring

Temperature (°C)	Mean dissolving time (s)
10	310
25	214
40	142
55	96

Experiment 2 — Stirring rate at 25°C

Stirring rate (rpm)	Mean dissolving time (s)
0	216
60	154
120	108

Experiment 3 — Tablet form at 25°C, no stirring

Tablet form	Mean dissolving time (s)
Whole	215
Broken into 2 equal pieces	128
Crushed to coarse powder	52

CONTINUE →

1. What was the independent variable in Experiment 1?
 - A. Water volume
 - B. Tablet mass
 - C. Dissolving time
 - D. Water temperature
2. Which condition was held constant in all 3 experiments?
 - F. Stirring rate
 - G. Tablet form
 - H. Water temperature
 - J. Water volume
3. Why did the students repeat each condition 5 times and report a mean?
 - A. To eliminate the need to control water volume
 - B. To reduce the influence of trial-to-trial variation
 - C. To make every tablet dissolve in the same time
 - D. To create 5 different independent variables
4. What was the dependent variable in each experiment?
 - F. Tablet package
 - G. Number of trials
 - H. Mean dissolving time
 - J. Beaker type
5. Why was it important to start timing at the same event—the tablet touching the water—in every trial?
 - A. To make elapsed times comparable among conditions
 - B. To guarantee that water temperatures were equal
 - C. To change the tablet's surface area
 - D. To prevent any gas from forming
6. To test the effect of water pH on dissolving time, which procedure would be most appropriate?
 - F. Use different tablet masses and different pH values in each trial
 - G. Vary pH while holding temperature, water volume, tablet form, and stirring rate constant
 - H. Vary pH and temperature together, then record only temperature
 - J. Use one pH value and stop each trial at a different event
7. How do the 25°C, 0-rpm results from Experiments 1 and 2 compare?
 - A. They differ by 2 seconds and are nearly the same.
 - B. They differ by 60 seconds.
 - C. Experiment 1 is exactly twice Experiment 2.
 - D. The comparison cannot be made because neither experiment used whole tablets.
8. Which experiment was designed specifically to compare the effect of tablet surface area?
 - F. Experiment 1
 - G. Experiment 2
 - H. Experiment 3
 - J. Experiments 1 and 2 only
9. If the trend in Experiment 1 continues, which result is most reasonable for a whole tablet in 70°C water with no stirring?
 - A. A mean dissolving time less than 96 seconds
 - B. A mean dissolving time between 142 and 214 seconds
 - C. A mean dissolving time greater than 310 seconds
 - D. A mean dissolving time exactly equal to 214 seconds
10. Assuming a roughly linear trend between 60 rpm and 120 rpm in Experiment 2, which mean time is the best prediction at 90 rpm?
 - F. 108 seconds
 - G. 131 seconds
 - H. 154 seconds
 - J. 185 seconds

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 · SCIENTIFIC INVESTIGATION SKILL DRILL									
1 D	2 J	3 B	4 H	5 A	6 G	7 A	8 H	9 A	
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

$77 \div 3 = 25.67$, 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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