

Science Answer Key — Weeks 33–36

Second Grade Curriculum • Answer Key with Scoring Guide

Week 33 — Science Fair: Asking Testable Questions

Part A: What Makes a Good Science Question? (6 pts)

1. "What color is the prettiest?" — Not testable (opinion)
2. "Do plants grow taller with more sunlight?" — Testable!
3. "Which type of paper airplane flies the farthest?" — Testable!
4. "Why is the sky blue?" — Not easily testable in 2nd grade
5. "Does warm water dissolve sugar faster than cold water?" — Testable!
6. "What is the best animal?" — Not testable — it's an opinion

Scoring: 1 pt each correct identification = 6 pts

Part B: Write Your Own Science Question (4 pts)

Accept any testable question. Must be answerable through observation or experiment.

Hypothesis should follow "I think because " format.

Scoring: 2 pts question (testable + clear), 2 pts hypothesis (prediction + reasoning)

Part C: My Experiment Plan (6 pts)

Accept any reasonable plan with all 6 steps filled in:

1. Question — must match Part B question
2. Hypothesis — must match Part B hypothesis
3. Materials — at least 3 reasonable items listed
4. Procedure — at least 3 sequential steps
5. Observe — describes what to look for
6. Record — describes how data will be recorded

Scoring: 1 pt per step correctly completed = 6 pts

Part D: Draw Your Experiment Setup (4 pts)

Accept any drawing that shows the experiment setup with labeled materials.

Scoring: 2 pts drawing shows experiment, 1 pt labels, 1 pt neatness

Week 33 Total: 20 points

Week 34 — Conducting Experiments & Graphing Results

Part A: Data Collection Table (5 pts)

Accept completed data table with at least 3 trials filled in.

Each trial should have: what was done, what happened, and a measurement.

Scoring: 1 pt per completed trial (up to 5 pts)

Part B: Observation Journal (4 pts)

Accept sensory observations using at least 2 different senses.

"What surprised me" should show genuine reflection.

Scoring: 1 pt each (saw, heard, felt, surprised) = 4 pts

Part C: Was My Hypothesis Correct? (3 pts)

Student restates hypothesis and compares to actual results.

Accept "yes" or "no" with evidence from their data.

Scoring: 1 pt restates hypothesis, 1 pt states result, 1 pt uses data as evidence

Part D: Create a Bar Graph (5 pts)

Graph must include: title, labeled x-axis, labeled y-axis, at least 3 bars, accurate data.

Scoring: 1 pt title, 1 pt x-axis label, 1 pt y-axis label, 1 pt correct bars, 1 pt neat/colored

Part E: What Does Your Graph Show? (3 pts)

1. Highest result — must match their graph data

2. Lowest result — must match their graph data

3. Pattern — accept any reasonable observation about trends

Scoring: 1 pt each = 3 pts

Week 34 Total: 20 points

Week 35 — Presenting Science Fair Results

Part A: Science Fair Poster Planner (6 pts)

Left Panel: Question + Hypothesis filled in

Center Panel: Title (big & colorful) + Pictures/Diagrams + Results (graph attached)

Right Panel: Materials + Procedure + Data Table + What I Would Change

Scoring: 2 pts per panel with all sections filled = 6 pts

Part B: Presentation Practice Script (4 pts)

Accept completed sentences that match their experiment:

- "My science question was..." — matches their question
- "I predicted that..." — matches hypothesis
- "I tested this by..." — matches procedure
- "My results showed..." — matches data

Scoring: 1 pt per completed sentence = 4 pts

Part C: Peer Review Form (6 pts)

All 6 categories rated with stars (1-5). Comments column has thoughtful feedback.

"One thing I liked" and "One question I have" are complete sentences.

Scoring: 0.5 pt per rating + 0.5 pt per comment + 1 pt liked + 1 pt question = 6 pts

Part D: Self-Reflection (4 pts)

Accept thoughtful reflections. Student should identify:

- What went well, the hardest part, what they'd change, and what they're proud of

Scoring: 1 pt per reflection question = 4 pts

Week 35 Total: 20 points

Week 36 — Year-End Science Celebration

Part A: My Favorite Science Topics (5 pts)

Accept any 5 topics ranked from the provided list with reasons.

Topics must come from: Properties of Matter, Plants & Animals, Habitats & Ecosystems, Engineering Design, Earth's Systems, Weather & Water Cycle, Biodiversity, Life Cycles, Science Fair

Scoring: 1 pt per topic with reason = 5 pts

Part B: Science Vocabulary Challenge (8 pts)

Word	Correct Match
1. Hypothesis	b. An educated guess about what will happen
2. Erosion	c. When wind or water moves rock and soil
3. Ecosystem	a. A group of living things in one area
4. Habitat	e. The place where an animal lives
5. Observe	d. To look closely and carefully
6. Properties	g. Characteristics you can see, feel, or measure
7. Life Cycle	f. The stages an organism goes through
8. Engineering	h. Designing solutions to problems

Scoring: 1 pt each = 8 pts

Part C: My Science Portfolio Reflection (5 pts)

Accept thoughtful reflections on each prompt:

- Most interesting experiment — names a specific experiment
- Matter — mentions states, properties, or changes
- Plants and animals — mentions habitats, needs, or adaptations
- Engineering challenge — names a specific design challenge
- Earth/weather — mentions erosion, weather patterns, or water cycle

Scoring: 1 pt per thoughtful reflection = 5 pts

Part D: Science Achievement Certificate (2 pts)

Award certificate to every student who completed the program.

Scoring: 1 pt name written, 1 pt date written = 2 pts

Week 36 Total: 20 points

GRAND TOTAL: Weeks 33–36 = 80 points

Grading Scale

Score Range	Grade	Description
72-80 (90-100%)	A	Excellent — mastery of science fair process
64-71 (80-89%)	B	Good — solid understanding with minor gaps
56-63 (70-79%)	C	Satisfactory — meets basic expectations
48-55 (60-69%)	D	Needs improvement — significant gaps
Below 48	F	Incomplete — requires reteaching

Note: Many activities in Weeks 33-36 are open-ended (science fair projects, reflections). Accept reasonable answers that demonstrate understanding. Focus on process and effort over perfect answers.