

LESSON 72: COMPARATIVE ZOOLOGY — A DOG AND A CAT

GRADE 2 • PART II



The Art of Seeing • Comparative Science

Willie shows his sister Annie how a dog differs from a cat in size, hair texture, cranial shape, and claws. Annie discovered that she had looked at pets every day without truly observing them.

"There is a great difference between just looking at a thing, and really seeing all of it."

1 COMPARATIVE ZOOLOGY: CONTRASTING FOUR ANATOMICAL TRAITS

Review Willie's observations. Complete each contrast with precise, observant words describing the dog and the cat.

Trait	The Dog (Canine)	The Cat (Feline)
Body Size	A dog is usually _____ than a cat.	A cat has a _____, lighter body.
Body Coat	Covered with _____, rough hair.	Covered with _____, velvety fur.
Head Shape	Head is _____ and pointed.	Head is _____ and broad.
Claw Action	Can _____ draw in his claws.	Can retract claws into _____.

2 PUNCTUATION & DIRECT QUOTATION TRANSCRIPTION

Carefully transcribe Willie's exact statement from the text. Place quotation marks (" "), commas, and capital letters with exact classical precision.

Model: "A dog," said Willie, "is larger than a cat. His body is covered with coarse hair instead of soft fur."

Transcribe 1: _____

Transcribe 2: _____

3 CRITICAL THINKING: 'JUST LOOKING' VS. 'REALLY SEEING'

Explain in your own words what Willie meant when he taught Annie the difference between *just looking* and *really seeing*. How does a young scientist observe nature?

Explanation: _____

Nature Example: _____

Pedagogical Overview • Scientific Mindfulness & Comparative Analysis

Lesson 72 delivers one of the most profound epistemological lessons in primary education: moving a child from passive seeing (*looking*) to active, mindful examination (*really seeing*). Students compare two familiar quadruped companions across four physiological dimensions (body size, coat texture, cranial shape, and claw retractility) and practice the complex mechanics of divided direct speech quotation marks.

Section 1 Model Answers • Fourfold Anatomical Contrasts

- 1. Body Size:** Dog: *larger* | Cat: *smaller / lighter*.
2. Body Coat: Dog: *coarse hair* | Cat: *soft fur (dense, velvety)*.
3. Head Shape: Dog: *long and pointed (elongated muzzle)* | Cat: *short and broad (rounded cranial contour)*.
4. Claw Action: Dog: *can not draw in claws (non-retractile, blunt for running)* | Cat: *hidden sheaths / paws (retractile, sharp for climbing and gripping)*.

Section 2 Model Answers • Divided Direct Quotation Mechanics

Exact Classical Transcription:

“A dog,” said Willie, “is larger than a cat. His body is covered with coarse hair instead of soft fur. His head is long and pointed, but the cat’s is short and broad. He can not draw in his claws as a cat can.”

Mechanics Check: Check that the comma is inside the quotation marks after *dog.*; that *said Willie* is followed by a comma outside or inside quotation marks before “*is larger*”; and that the second spoken part starts with lower-case *is* since it continues the sentence.

Section 3 Model Answers • Epistemological Reflection

Exemplar Student Explanation: “Just looking at a thing means our eyes glance over it without thinking or noticing details. Really seeing means examining every part closely with our minds to discover how things are shaped, how they work, and why they differ.”

Exemplar Nature Example: “For example, anyone can look at a tree, but a scientist really sees the veins of the leaves, the texture of the bark, and the rings inside the wood.”

R FOUR-DOMAIN EVALUATION RUBRIC (TOTAL: 100 POINTS)

Domain	Exemplary (25)	Proficient (20)	Developing (15)	Beginning (10)	Teacher Feedback
1. Comparative Accuracy	Perfectly identifies all 4 anatomical contrasts (size, coat, head, claws).	Correctly contrasts 3 traits; 1 minor ambiguity.	Contrasts 2 traits accurately; confuses head shape or claws.	Inaccurate or missing multiple comparative cells.	
2. Quotation Punctuation	Flawless quotation marks, internal commas, and capitalization.	1 minor punctuation omission in divided quote.	Quotes present but misplaced commas or capitalized mid-sentence.	Omits quotation marks completely; sentence fragment.	
3. Depth of Reflection	Deep, articulate distinction between glancing and mindful seeing.	Clear, sound explanation with a relevant practical example.	Superficial restatement without personal insight.	Does not address the distinction between looking and seeing.	
4. Conventions & Penmanship	Exemplary handwriting alignment, neat spacing, zero spelling slips.	Neat handwriting with 1–2 minor spelling or capitalization slips.	Noticeable errors in spelling (*coarse*, *broad*, *claws*).	Illegible handwriting or excessive spelling breakdowns.	