The Roof Argument

Trace how a model paragraph builds and qualifies an informative claim

9.3.W.2 "Students will compose informative essays, reports, or technical writing that: • objectively introduce and develop topics • include a defensible thesis • incorporate evidence (e.g., specific facts, details, charts and graphs…"

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline the passage's main claim, circle two facts that support it, and number the conditions that limit it. Mark these parts to see how an informative argument stays precise.

The Case for Cool Roofs

1. On a summer afternoon, a dark roof can become much hotter than the air around it. Sunlight strikes the surface, and the roof absorbs much of that energy as heat. A cool roof uses a light-colored or specially coated surface to reflect more sunlight. It also releases some absorbed heat rather than holding it. Like a light shirt on a sunny day, the roof reduces heat gain by sending more sunlight away. For buildings exposed to strong sun, cool roofs can lower indoor cooling demands, although their value depends on climate and building design.

2. When less heat passes through a roof, an air conditioner has less work to do. The U.S. Department of Energy explains that cool roofs can reduce cooling energy use in air-conditioned buildings. A roof that stays cooler may also make an uncooled top floor more comfortable. These effects matter most where cooling is a major expense. The roof does not create cold air or replace insulation; it limits one source of incoming heat. That distinction keeps the claim precise: the surface helps manage heat, but the whole building still shapes the result.

3. Still, a reflective surface is not the best choice for every building. In a cold climate, reduced winter sunlight absorption may increase heating needs, although snow cover and other conditions affect the outcome. A building shaded by taller structures may receive too little direct sun for a roof change to matter much. Owners must also consider the roof's condition before choosing a coating or replacement. Cool roofs are therefore a practical tool, not a universal fix. Their strongest case is a sunny building where reduced summer heat can outweigh installation costs and any winter heating penalty.

2 ANSWER WITH EVIDENCE

Use the passage

1. State the passage's main claim. What makes it more defensible than a claim that cool roofs help every building?

2. How does the Department of Energy reference support the main claim rather than simply repeat it?

3. How does paragraph 3 change the argument developed in paragraphs 1 and 2? Name two conditions it adds.

4. Identify the comparison in paragraph 1. How does it make the explanation clearer?

3 YOUR TURN

Your own words

Write one 75- to 105-word informative paragraph explaining whether switching classroom lamps from incandescent bulbs to LEDs is a practical way to reduce energy use. Use these facts: LEDs use less electricity and last longer than incandescent bulbs, but often cost more to buy. Include a defensible thesis, at least two facts, a limitation, formal style, and one comparison that clarifies an idea.

ANSWER KEY

The Roof Argument

GRADE 9 · 9.3.W.2

PART 1 · READ AND MARK

Underline the passage's main claim, circle two facts that support it, and number the conditions that limit it. Mark these parts to see how an informative argument stays precise. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	State the passage's main claim. What makes it more defensible than a claim that cool roofs help every building?	**Cool roofs can lower cooling demands for buildings exposed to strong sun, but their value depends on climate and design. The claim identifies where the benefit is likely and allows for exceptions.**
2	How does the Department of Energy reference support the main claim rather than simply repeat it?	**It supplies an attributed finding that cool roofs can reduce cooling energy use in air-conditioned buildings, giving evidence for the claim about cooling demands.**
3	How does paragraph 3 change the argument developed in paragraphs 1 and 2? Name two conditions it adds.	**It qualifies the benefits by explaining when a cool roof may be less useful. Accept any two: a cold climate, shade from taller structures, the roof's condition, installation costs, or a winter heating penalty.**
4	Identify the comparison in paragraph 1. How does it make the explanation clearer?	**The cool roof is compared to a light shirt on a sunny day. The familiar example helps readers understand how reflecting sunlight can reduce heat gain.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Switching classroom lamps from incandescent bulbs to LEDs is a practical way to reduce energy use. LEDs use less electricity than incandescent bulbs to provide similar light, so the classroom requires less power for lighting. They also last longer, which reduces the need for replacement bulbs. Like a sturdy pair of shoes, a longer-lasting bulb needs replacing less often. Although LEDs often cost more to buy, their lower electricity demand and longer life make them a reasonable choice when a school updates its lighting.

Accept accurately paraphrased claims and evidence in Parts 1 and 2. For Part 3, accept a different defensible position if the paragraph uses the supplied facts accurately, acknowledges the higher purchase cost, and meets the stated writing requirements.