

# Synthesize before writing

## Recognize the depths of thinking.

### Redefine research.

#### 1. Review the traditional research-writing unit.

- The unit spans multiple days/weeks.
- The reader gathers his own sources.
- The product is long (e.g., 5-10 pages).
- The final product includes the full writing process.

Explore topics.	Find credible sources.	Read & collect info.	Synthesize & organize.	Write the first draft.	Revise & edit.
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#### 2. Clarify the simulated research-writing task.

- The task starts and ends in one sitting.
- The reader utilizes provided sources.
- The product is shorter (e.g., 2 pages).
- The final product includes only a strong first draft.

(Topic provided.)	(Sources provided.)	Read & collect info.	Synthesize & organize.	Write the first draft.	(No opportunity for major revision.)
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## More than summarize, more than infer— students must synthesize.



### Summarize the author's ideas.

Restate the most important information the author presented.



### Infer your thoughts.

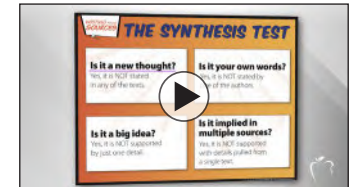
Integrate multiple details from the text to generate a new idea that the author did not state literally.



### SECRET SITE RESOURCES



View a mini-lesson.



Clarify *summary* v *synthesis* (and the *Synthesis Test*).



### Synthesize your thoughts.

Integrate multiple details from different texts to generate a new idea that none of the authors stated literally.



**SPIN-OFF  
SESSIONS**

**WRITE ABOUT READING**  
Session 1: Make inferences in 5 steps.  
Session 5: Improve extended responses.



# WRITE ABOUT READING

Synthesize before writing

Synthesize in two steps.

## STEP 1 Collect

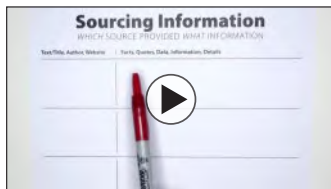
Read each text and collect its details.

- Take notes on Source 1.
- Note the new and different information while reading Sources 2-3.
- Maintain source-specific notes.



### SECRET SITE RESOURCES

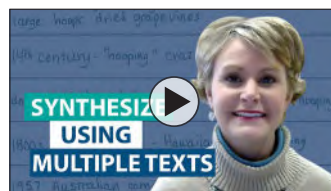
Organize information collected from sources.



Mark new & contradictory information.



How do you prepare students to synthesize when reading off a screen?



## STEP 2 Combine

Reread across the texts' details.

READING VOICE

Reread one detail. Consider how that detail addresses or answers the prompt/question, if at all.

- This means...
- This is saying...
- This is like...
- This is important because...

THINKING VOICE

Skim the other details, looking for a second one that has a similar meaning, sentiment, or reaction.

Reread the prompt/question.

Consider how the two details both address the prompt/question.

- How are they connected?
- How are they related?
- Does one detail build on the other?
- This is another...
- This is like (the first detail) in that...
- This also...
- This is kind of...
- If you think about it as..., then it's similar to the first detail because...

SYNTHESIS

This is the working synthesis. Note it within the ba-bam bubble.

Skim for a third detail that seems to fit within the working synthesis.

After finding one, reread the prompt/question again.

Determine if the working synthesis needs a little revision in order to include this third detail.

Repeat the process, combing through all the text details collected. Massage the working synthesis, as needed, to address the prompt/question and encompass multiple text details found in multiple



### PROMPT

Explain why some forest fires are fought while others are left to burn.

## WRITING FROM SOURCES

SOURCE 1

### All About Wildfires

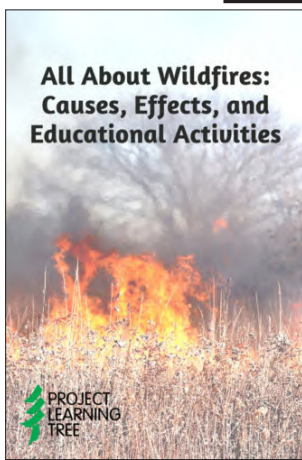
Climate change has led to more extreme weather in the last few decades, including droughts. Currently, most of the country is in the "most severe drought in recorded history." The hotter and drier the environment becomes due to rising temperatures, the higher the risk of wildfires starting from natural or human-related activity.

Intense heat and dry vegetation can quickly fuel a wildfire that can burn out of control. And when there's strong wind, it creates ideal conditions for fires to become widespread.

However, forest fires are sometimes welcome. Fires that are low intensity and occur naturally are necessary—and unavoidable. These fires are mainly caused by lightning that strikes trees or the ground.

Smaller fires can remove and reduce dead grass, brush, and trees that can fuel larger and more severe wildfires. Healthy fire also destroys smaller or weaker vegetation and sends their nutrients more quickly into the ground. As a result, the stronger trees and plants that stick around get more sunlight and nutrients to become even healthier, enabling their species to evolve.

With fewer plant roots taking up space on the forest floor, more water becomes available for other vegetation and wildlife.



Excerpt from Project Learning Tree website

### SOURCE 1

- Dry vegetation fuels a wildfire.
- Strong wind = fire becomes widespread.
- Natural wildfires start from lightning strikes.
- Small fires remove/reduce dead grass, brush, and trees.
- Fire destroys smaller/weaker vegetation.
- Fire sends nutrients into the ground more quickly.
- Plants become even healthier.
- Fewer plant roots = more water for other vegetation and wildlife.



### SOURCE 2

- Certain pinecones cannot germinate in shade.
- They open up in heat and release the seeds.
- Seeds get sunlight after fire burned the old trees.
- Germinate quickly and grow in abundance.

SOURCE 3



### 5 Facts About Wildfires

**FACT #1** — Humans cause nearly 85% of wildfires. While wildfires can start naturally from lightning strikes and spontaneous combustion of dry fuel, the U.S. Department of Agriculture reports that humans cause nearly 85% of wildfires in the United States. Examples of this activity include leaving campfires unattended, improperly disposing of cigarettes, knocking over powerlines, burning debris, and committing arson.

**FACT #2** — Dry conditions increase the risk of wildfires. Wildfires thrive in dry climates and drought-ridden locations because these areas are full of flammable materials like dead plants and dry vegetation.

**FACT #3** — Fire prevents fire. It may seem strange, but smaller fires can actually prevent bigger ones from occurring. This is because smaller, cooler fires can help to remove any potential fuel like dry leaves, logs, and overgrown shrubs.

**FACT #4** — Wildfires can travel at a rate of up to 14.27 miles per hour. Wildfires need fuel, heat, and oxygen to begin and stay alive, but they require strong winds to spread the flames and cause an inferno of destruction. Once the wildfire begins and spreads, it can travel at a rate of up to 6.7 miles per hour in forests and up to 14.27 miles per hour in grasslands. In 2017, the Thomas Fire in California spread so quickly that it moved at a rate equivalent to a football field per second.

**FACT #5** — Forest fires help the ecosystem. Small fires clear out overgrown areas and create open space for sunlight to shine down. This allows new plants to grow, providing valuable food and habitats for many wildlife species.

Information adapted from the Western Fire Chiefs Association website.

### SOURCE 3

- Wildfires thrive on flammable materials like dead plants and dry vegetation.
- Strong winds spread the flames.
- Once it begins, travels (fast).
- Smaller, cooler fires remove potential fuel like dry leaves.
- New growth is valuable food and habitats for wildlife.

**PROMPT** Explain why some forest fires are fought while others are left to burn.

### Writing from Sources

#### SOURCE 1

- Fire destroys smaller/weaker vegetation.
- Fire sends nutrients into the ground more quickly.
- Plants become even healthier.
- Fewer plant roots = more water for other vegetation and wildlife.

#### SOURCE 2

- Certain pinecones cannot germinate in shade.
- They open up in heat and release the seeds.
- Seeds get sunlight after fire burned the old trees.
- Germinate quickly and grow in abundance.

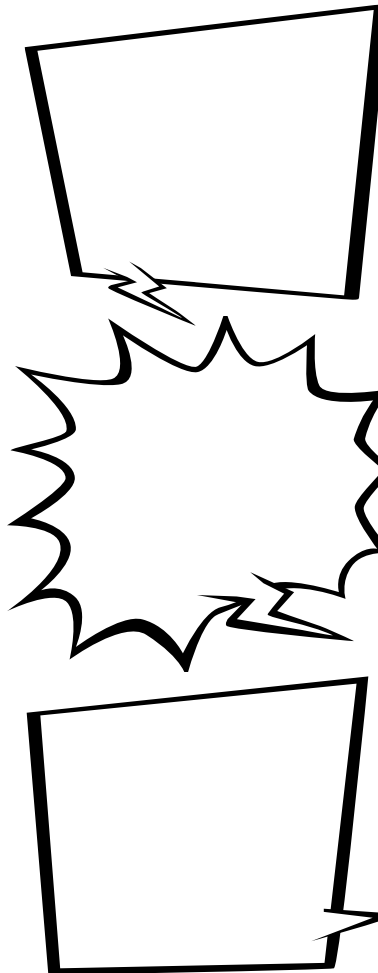
#### SOURCE 3

- New growth is valuable food and habitats for wildlife.



**NOW IT'S YOUR TURN**

#### SYNTHESIS



### Scaffold instruction.

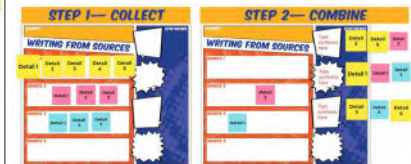
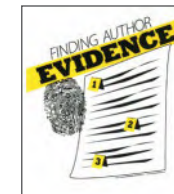
Start with visuals.

Practice 2-step synthesizing with visuals.



Support with pre-selected details.

Manipulate details physically.



Wean off the formula organizer.

PROMPT	SYNTHESIZER
<b>Writing from Sources</b>	
SOURCE 1	
SOURCE 2	
SOURCE 3	
SOURCE 4	



**RELEVANT RESOURCE**

THE SYNTHESIS TEST	
<input checked="" type="checkbox"/> <b>Is it a new thought?</b> <small>Yes, it is NOT stated in any of the texts.</small>	<input checked="" type="checkbox"/> <b>Is it your own words?</b> <small>Yes, it is NOT stated by one of the authors.</small>
<input checked="" type="checkbox"/> <b>Is it a big idea?</b> <small>Yes, it is NOT supported by just one detail.</small>	<input checked="" type="checkbox"/> <b>Is it implied in multiple sources?</b> <small>Yes, it is NOT supported with details from just one text.</small>



WRITE ABOUT READING | SESSION 5:  
Improve extended responses.



**SPIN-OFF SESSION**