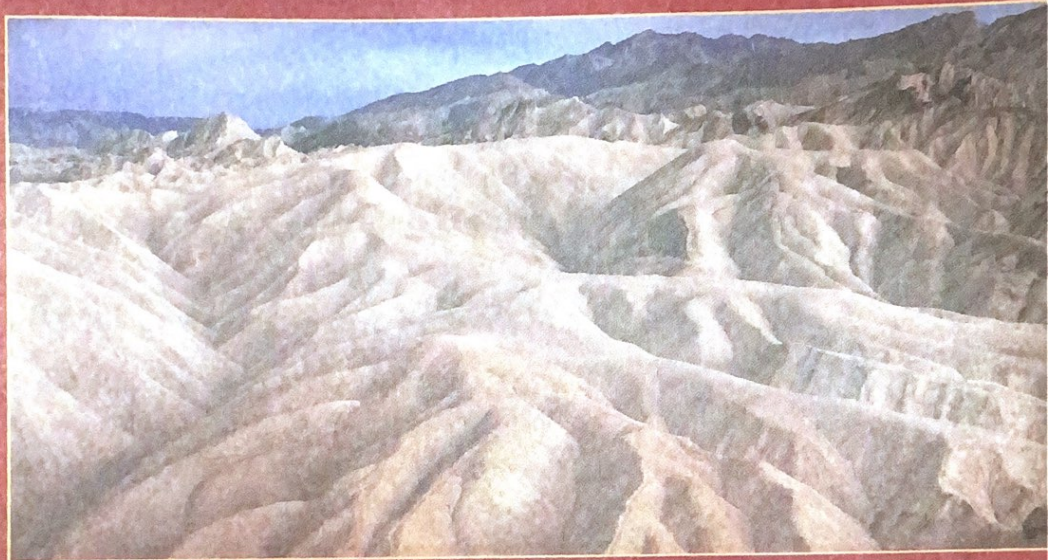


STEP

1

## ANALYZE THE MODEL

*How do nature and humans shape the earth?*



You will read:

- ▶ AN INSTRUCTIONAL ARTICLE  
*Get Organized*

You will analyze:

- ▶ TWO STUDENT MODELS  
*Erosion by Nature*  
*How Humans Shape the Earth*



## Source Materials for Step 1

Ms. Chen's students read the following text to help them learn strategies for writing informative essays. As you read, underline information that you find useful.

### NOTES

## Get Organized

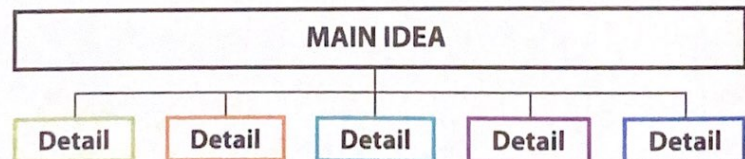
by Matthew Reilly

An informative essay lets you expand and share your knowledge of a topic. This type of writing assignment requires you to research, plan, and write a clearly organized essay that presents a central idea, supported by details, facts, and explanations.

A structure is a system in which the parts all have a function. When you write an essay, the parts should *relate* to each other in a clear way to support your message. Graphic organizers can help you plan your organizational structure.

### Main Idea and Supporting Details

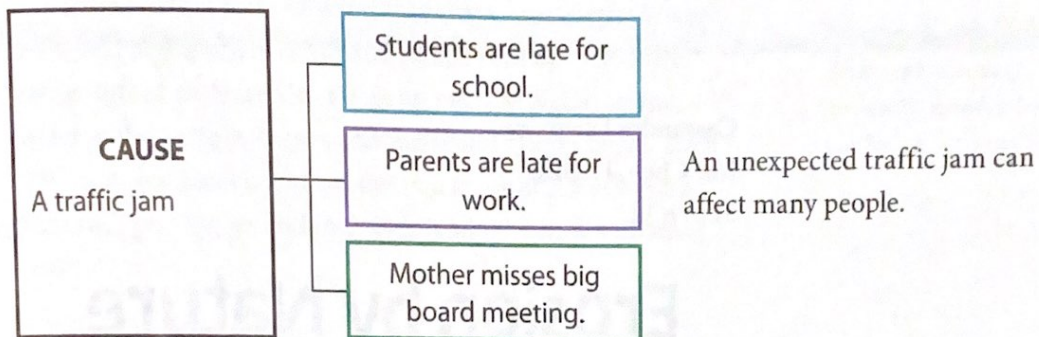
The success of your informative essay will depend on your main idea and supporting details. In the graphic organizer below, jot down your main idea or central point. Then identify the details you will use to support or explain your main idea.



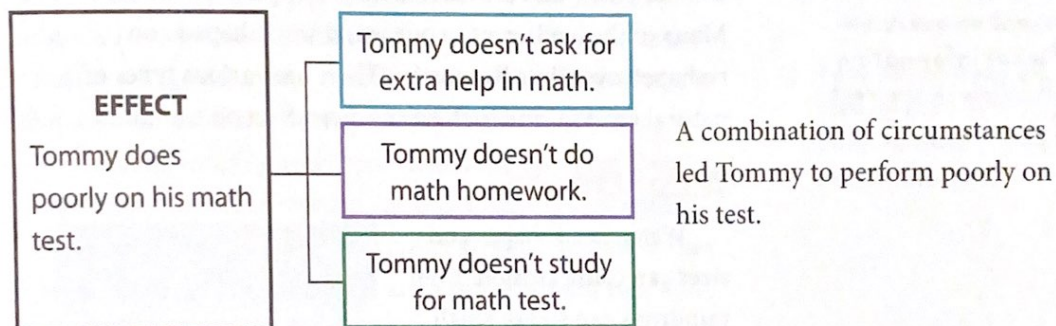
## Cause-and Effect-Organization

Cause-and-effect writing explains why something happened, why something exists, or what resulted from an action or condition. The way cause-and-effect writing is organized depends on your topic and purpose for writing. Different types of cause-and-effect organization are shown below.

### 1. Cause-to-Effect Organization

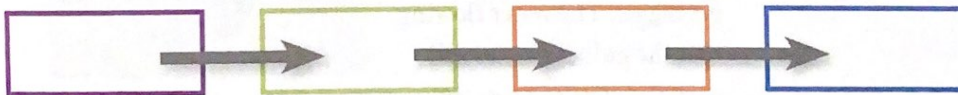


### 2. Effect-to-Cause Organization



### 3. Causal Chain

In a causal chain, one event causes the next event to occur. The second event causes the third event, which causes the fourth. You may use a causal chain to explain why a series of events took place.



## Discuss and Decide

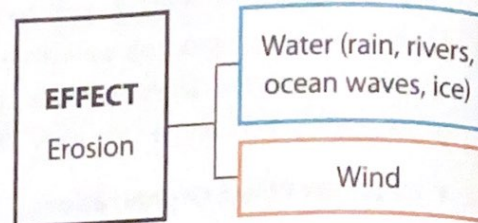
Which text structure would be more helpful in discussing how a car works?



## Analyze Two Student Models for Step 1

Cassandra used a cause-and-effect text structure for her essay. Read her essay closely. The red side notes are comments made by her teacher, Ms. Chen.

Cassandra's Model



Cassandra Lawrence  
Ms. Chen, English  
March 12

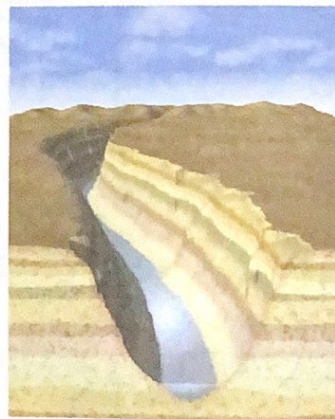
### Erosion by Nature

*Good opening paragraph. You present an overview of what information will follow in the rest of your essay.*

Erosion occurs when soil and rock break down into smaller pieces and are carried from one place to another. Many of the landforms in our world were shaped and reshaped over time by erosion. There are various types of natural erosion, and each has its own effect on the land.

#### Water Erosion

Water in all shapes and sizes can cause erosion. Even raindrops can splash small particles of soil from one place to another. When it rains, water flows down hill, sometimes making gullies. Each time it rains, the gullies get bigger. The water flowing into the gullies carries soil particles. The soil gets into rivers and is carried far away.



Canyons are formed by the erosion caused by a river.



As rivers flow over time, they can gradually wear down not only soil but rock as well, as evidenced by the ravines and cliffs that some rivers flow through. The constant flow of the water shapes the rock and shapes the earth. Ocean waves crashing into the shore are also a powerful force. They shape the beaches, rocks, cliffs, and coastline, year after year.

Ice is another form of water that shapes the earth through erosion. Huge glaciers crush and scrape rock as they slowly move. Bits of rock are also taken up into the glacier as the water at the bottom freezes and melts and freezes again. Even if it's not in a glacier, when water in a crack of stone freezes, the crack gets bigger and then eventually the rock will break apart.

### Wind Erosion

Wind erosion is a powerful force, especially in dry desert areas. The wind picks up grains of sand and blows them around. In some places, the wind piles up sand in one area creating a huge dune, and then shifts the dunes from place to place. The sand and other particles in the air also bang into the land, wearing away rocks and hills, changing their shape bit by bit. Some rocks in the desert have transformed into amazing and strange shapes (mushrooms, arches) as they have been sculpted by the wind and sand over hundreds and thousands of years.

Erosion happens slowly, but over time it can bring about enormous changes in the shape of the land.

*Nice example! Ice does not always come to mind when we think of erosion.*

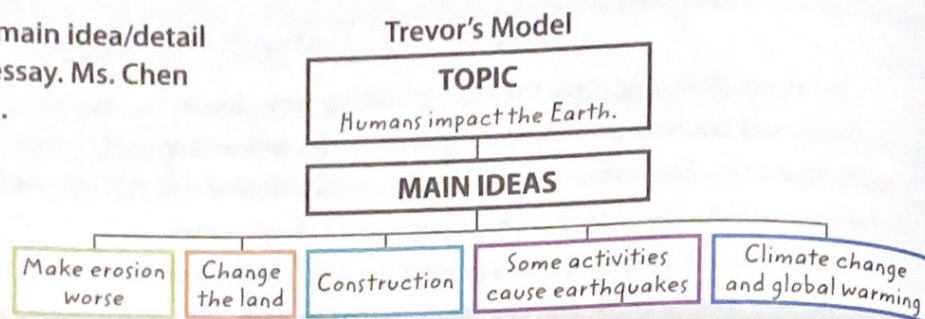
*Your paragraphs all clearly show how each natural element causes erosion.*

### Discuss and Decide

What type of cause-effect organization is used in this essay? Why is this an effective way to present information on erosion?



Trevor chose to use a main idea/detail text structure for his essay. Ms. Chen made her notes in red.



Trevor Kelley  
Ms. Chen, English  
March 12

# How Humans Shape the Earth

*Strong introduction.  
It catches my  
interest.*

It's not just natural forces such as volcanoes, earthquakes, wind, water, and ice that shape the earth. Humans also have an impact on the Earth, and it is not always a good one.

One way humans shape the earth is by making erosion worse. Many human activities cause erosion. Some, such as large-scale agriculture, can change weeds, grasses, shrubs, and trees whose roots hold the soil in place. Removing all these and then plowing up the land to plant crops means it is easier for rain to wash soil particles away. The topsoil that is washed away clogs rivers and streams and causes other problems downstream. Loss of topsoil also means the fields are not as fertile and won't grow as many crops.

*These details support  
the topic sentence  
nicely.*

Human activity affects the Earth by changing the land. For example, deforestation, or clearing land of trees, is harmful because trees provide many benefits. Trees stop erosion, keep temperatures down, and conserve the soil's water and nutrients. Another problem that humans cause is desertification, which occurs when land loses its plants and wildlife and becomes desert. Deserts don't support much life and can't easily be used to grow food.

Construction has a huge impact on the Earth. Think of all the buildings, roads, parking lots, bridges, and dams that people have built over the centuries. The cement and tarmac surfaces of roofs and roads retain heat and channel or absorb water in a different way from soil and plants, but do not release them back into the environment. Soil and plants use heat and water to grow more plants. In this way, human-built structures affect the Earth differently than natural elements.

*Your paragraphs have clear topic sentences. This organization makes it easy for the reader to follow along.*

People are very clever and can do amazing things, but they can't always predict the results of their actions. For example, there is evidence that some mining and drilling activities (such as fracking) can cause small earthquakes. The shifts in the Earth that result from earthquakes further change the landscape. Burning fossil fuels (coal, petroleum, natural gas) and cutting down trees remove valuable resources that cannot be replaced and change the way these areas appear.

Probably the biggest (unpredicted) impact that humans are having on the earth is climate change and global warming. This is happening at least partly because of human activity such as burning fossil fuels and deforestation. Climate change means that all kinds of weather patterns are becoming less predictable and more extreme. The good news is that if people are smart enough to create climate change, they should be smart enough to figure out a solution.

*Good way to connect your final summary to your opening paragraph.*

### **Discuss and Decide**

Could a cause-and-effect organization be used with this topic? If so, which model would work best?



## Terminology of Informative Texts

Read each term and explanation. Then look back at and analyze each student model. Find an example to complete the chart. Make a claim about which model was more successful in illustrating each term.

Term	Explanation	Example from Student Models
<b>topic</b>	The <b>topic</b> is a word or phrase that tells what the essay is about.	
<b>text structure</b>	The <b>text structure</b> is the organizational pattern of an essay.	
<b>main idea</b>	The <b>main idea</b> is the controlling, or overarching, idea that states the main point the writer chooses to make.	
<b>supporting evidence</b>	The <b>supporting evidence</b> is relevant quotations and concrete details that support the main idea.	
<b>domain-specific vocabulary</b>	<b>Domain-specific vocabulary</b> is content-specific words that are not generally used in conversation.	
<b>text features</b>	<b>Text features</b> are features that help organize the text, such as: headings, boldface type, italic type, bulleted or numbered lists, sidebars, and graphic aids, including charts, tables, timelines, illustrations, and photographs.	

**Claim:** \_\_\_\_\_

Support your claim by citing text evidence.

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