#### Text Structure Samples

### **Description**

"The earth's crust is made up mostly of hard, rocky substances, though some of these substances have crumbled into dirt from years of exposure to wind and rain and roots of plants. That crust is many miles thick (though the part under the ocean is thinner than the part on the land). Underneath the crust is a layer called the mantle. The mantle is about 1,800 miles thick. Below the mantle is the earth's core, which is made up of two layers called the inner core and outer core."

Christopher Lampton, Earthquake, 1991 ISBN 0-395-63642-6

### Description

2 "Do volcanoes erupt under the sea? Yes indeed. In fact, many more volcanoes may erupt underwater than erupt on land. They are called rift volcanoes. Rift volcanoes occur where two plates are pulling apart, usually between 1 and 2 miles below sea level. These volcanoes form as magma oozes up between the two plates. The magma fills in the gap, pushing the plates further apart. Rift volcanoes pop up under the Atlantic Ocean. The North American plate and the Eurasian plate are slowly separating. This means the Atlantic Ocean is growing wider! Friends on opposite sides of the Atlantic will be 1 inch farther apart next year."

Berger, Melvin and Gilda. Why Do Volcanoes Blow Their Tops? 1999. p. 13 ISBN 0-439-09561-6

### **Description**

"Would it surprise you to learn that corn is also a type of grass? It was first grown in Central America thousands of years ago. Its seeds are called kernels. Very few kernels grew on wild corn grass. It took thousands of years of choosing the corn grass plants with the biggest seeds, or kernels, to make what we enjoy today as corn on the cob."

Ken Cameron, Plant Genetics, 2002, p. 11 ISBN 1-58344-938-8

#### Sednence

"Imagine you have a solid substance, such as ice. Heat it, which makes its temperature rise. When it reaches a certain level, the temperature stops rising and the substance begins to turn into a liquid. This temperature is called the substance's melting point. You keep heating. When all the solid has turned to liquid, the temperature begins to rise again. Eventually the temperature stops rising and the liquid begins to turn into a gas. The temperature at which this happens is called the boiling point. If you keep heating the temperature stays the same until all the liquid is gone. Then the temperature begins to rise again."

Christ Oxlade, Chemsitry, 1999, p. 12-13 ISBN 0-81724-948-6

# **Compare/Contrast**

"All matter has both physical and chemical properties and chemical properties. Physical properties are those that can be observed without changing the make-up, or identity of the matter. For example, clay is malleable, which means it will bend or flatten when squeezed. Squeezing changes the shape of the clay but does not change what the clay is made of. Malleability is an example of a physical property. Chemical properties describe matter based on its ability to change into a new kind of matter with different properties. For example, paper is flammable: it is capable of burning in the presence of oxygen. Flammability is a chemical property of paper. A chemical property of iron is its tendency to rust. Rusting occurs when iron reacts with oxygen to produce iron oxide. Reactivity to acid and to water are two more examples of chemical properties."

ScienceSaurus, A Student Handbook, Great Source Educational Group, 2002, p. 251-252 ISBN 0-669-48191-2

# Compare/Contrast

"An electrical circuit is made up of electrons moving in a circuit. Electrons are tiny bits of negative electricity that are found in all matter. In certain materials such as iron, electrons can move freely. These materials are good electrical conductors. In materials such as plastic, electrons are attached to larger particles and cannot move freely. These materials do not conduct electricity well, and are called non-conductors, or insulators. That is why a plastic spoon did not allow electrical current to pass through it in the Electric Stoppers experiment."

Darlene Lauw, Science Alive Electricity. 2002, p. 10 ISBN 0-7787-0561-7

# **Compare/Contrast**

3 "High overhead, plants such as orchids and ferns grow. They are adapted to life on tree branches where there's plenty of sunlight. They grew from windblown seeds or spores that once landed on the tree... These plants get the water they need from rain. They get minerals from dust and decaying leaves. They take nothing from the tree at all.

Mistletoe lives in treetops, too, but it is a thief. Birds carry the plant's sticky seeds to a tree branch. The mistletoe's roots grow into the living wood and steal all the water and minerals the plant needs from the tree. Its leaves cast shade on the tree's leaves. It is a good thing for trees that mistletoe does not grow very large."

Kudlinski, Kathleen V. How Plants Survive. 2002. p. 12-13 ISBN 1-58273-708-8

## Cause/Effect

"How do mountains like these disappear? The process begins with rain. As it rains, water seeps through cracks and joints in the stone. Chemicals in the water dissolve small grains of rock. Later on, the water freezes and thaws, prying loose bigger pieces of rock. These rocks grind against other rocks as they slide downhill. The wind carries away particles of dust left behind by these grinding rocks. In the end it can be said that wind, water, and gravity have hauled away these mountains."

Peter Anderson, A Grand Canyon Journey: Tracing Time in Stone, 1997, p. 45, ISBN 0-531-20259-3

## Cause/Effect

"Scientists think that at some point an early farmer noticed that some of the wild grass plants made larger seeds than others... The farmer picked out these larger seeds to plant. Then more plants with large seeds grew. The instructions for making plants with larger seeds were in the nucleus of each cell in the plant. After planting more and more of these large seeds each year, the ancient farmers would sometimes find one or two plants in their fields that had seeds that were a little bit bigger than the others. They used most of the seeds for flour, but kept the largest seeds they could find each year. Those seeds were saved for planting. After thousands of years of selecting, or choosing the biggest seeds, farmers ended up with what we know today as wheat. It came from nothing more than an ordinary grass."

Cameron, Ken. Plant Genetics. 2002. p.8-9 ISBN 1-58344-938-8

## Cause/Effect

"Earthquakes happen all over the world in areas called seismic zones. Seismic zones occur where the plates of crust covering the Earth's surface meet each other. Inside the Earth, the mantle is always moving, which in turn moves the plates. These plates push against each other, building up tension between them. When the tension between plates becomes too great, they grind against each other, causing the Earth's surface to tremble and shake."

Robert Neumiller, Planet Earth, Creative Discoveries, 2001, p. 52 ISBN 0-886-82953-4

## Cause/Effect

"As soon as mountains rise, they begin to be worn down steadily and slowly by the forces of erosion: wind, rain, moving water, and ice, as well as temperature and chemical changes. Some kinds of rocks, such as limestone, dissolve in water, but most water erosion on mountains is caused by streams and rivers that plunge down the steep sides, lifting up rocks and pushing them along to rub and scrape against other rocks. In cold climates, slowly moving rivers of ice called glaciers, also carve away at mountains.

Rocks expand daily in the heat of the sun and then contract again during the cold nights. These constant temperature changes begin to crack the rock. Water gets into the tiny cracks, freezes at night, expands, and opens the cracks wider. Finally, the rock breaks off from the mountain. Sometimes the wind blows sand, which wears away mountains to produce towers such as these in Zion National Park in Utah."

Simon, Seymor. Mountains, 1994. p. 19-20. ISBN 0-688-15477-8

# **Problem/Solution**

1 "In summer, when long daylight hours stimulate growth in the sparse vegetation, musk oxen live well and grow fat. In winter, food plants lie deep under hard-packed snow, which the oxen scrape away with their hooves. This is the hungry time, when they survive mainly on the fat that they stored during the summer.

Others, too, are hungry, including bands of timber wolves, which sometimes follow the musk oxen. In spring, when the calves are born, the wolves become particularly menacing. The musk oxen form a defensive ring, with calves and young animals in the middle. Even a dozen wolves attacking together stand little chance against that circle of lowered heads and sturdy horns."

Stonehouse, Bernard. Defenders., 1999, p.26 ISBN 0-439-15347