

The beginning paragraph starts with an interesting detail and ends with the thesis statement (in bold) →

Twelve hundred feet below the grounds, an enormous mine has been operating almost nonstop for more than a century. A hundred miles of tunnels connect its huge chambers. It has underground roads for cars, trucks, and mining machines. This mine produces hundreds of tons of “rock” every day. However, the rock from this mine is not gold, or iron ore, or even coal; it is salt. **This enormous, hundred-year-old salt mine lies beneath the city of Detroit, Michigan.**

All the details support the topic sentence (in bold).

The first middle paragraph explains why the place is important. →

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The author tells about the history of the place.

Salt is much more important than most people realize. Wars have been fought over it. In some places, people have traded salt for gold in equal measures. In ancient China, salt coins were used for money, and Roman soldiers were often paid in salt, which is where the word “salary” comes from. IN the human body, salt carries electrical signals that keep a person alive. To stay healthy, a person needs to eat about three pounds of salt a year (Modern). Salt is also used to preserve meat and fish, to tan leather, to soften water, and to make many different chemicals. However, most of the salt from Detroit mine is now used to melt ice and snow on streets and highways (Zacharias).

Scientists say that the Detroit min digs into a bed of salt that is several hundred million years old. From 600 million to 230 million years ago, seawater flooded the middle of North America many times. As sun and wind evaporated the water, sea salt was deposited on the submerged land. Trillions of tons of salt, collected in a layer 400 to 1,600 feet thick, reached from western Michigan all the way to New York. Eventually, it was covered by silt that became rock more than 1,000 feet thick. When people later came to the area, they found springs of salt water bubbling from the ground. Early settlers would collect that liquid and boil away the water to get the salt (“Dry”).

Each paragraph has a topic sentence (in bold) and supporting details.

Sources are included in parentheses inside of the paragraphs

Sentences are arranged so that the reader can easily follow the ideas.

The author shares interesting details with the reader.

In 1896, the Detroit salt mine was started in order to dig the salt out of the ground. It began as a shaft 1,200 feet deep and about 6 feet wide. At first, the salt was used mainly for storing meat and fish and for making ice cream (Detroit 167). In 1940, though, Detroit became the first city to use rock salt on icy roads. Other cities soon followed Detroit's examples and the mine began selling most of its salt to road crews ("Dry"). In 1983, however, low sales and competition from Canadian mines caused the Detroit mine to close. Crystal Mines bought the mine, hoping to store hazardous wastes there. In 1985, while waiting for a permit, they ran public tours of the mine. In 1997, after the permit was denied, Crystal Mines sold the mine to the Detroit Salt Company, according to Kim Roberts, manager of the mine. The mine was reopened, and it again became one of the main sources of road salt in the United States.

Some people call the Detroit salt mine a city beneath a city. It covers 1,400 acres under Detroit and its suburbs. That's equal to 1,300 football fields. Also it has more than 50 miles of roads where construction equipment, trucks, and cars drive. To get these vehicles down the shaft, they had to be taken apart, carried down in pieces, and reassembled in underground workshops. The seven-foot-tall tires for the dump trucks had to be compressed and bound with straps to fit down the shaft (Zacharias).

The mining equipment includes many different types of big electric trucks. One type has a giant chainsaw on the front, which cuts a deep groove into a salt wall at floor level. Then a drilling-marking truck bores a pattern of holes 20 feet deep into the wall to hold dynamite or other explosives. The blast from these explosive breaks hundreds of tons of rock from the wall in a huge chunks. Trucks with giant shovels then scoop up tons at a time and drop them into dump trucks. The dump trucks carry the chunks back to the shaft, where a crusher breaks them into smaller pieces and sorting machines separate the pieces by size. Finally, buckets that can hold nine tons of salt run up a conveyor to the surface. There the salt is packaged and shipped ("Dry").

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A comparison of size helps the reader understand a complex idea.

The Salt institute explains that the mine is carved out in a “room-and-pillar” method. Each room is as big and high as a school gymnasium. Between rooms, the miners leave pillars of salt about 60 feet wide to hold up the ceiling. This type of mining gets about 70 percent of the salt from the ground, leaving the other 30 percent as support pillars. Because the salt bed has never had an earthquake or other shock, it lies very flat, so the pattern of rooms and pillars stretches level from one end of the mine to the other. According to the Salt Institute, this mine “has never experienced a collapse or mine fatality” (“Dry”).

Miners say that the mine is a very clean and healthy place to work. The temperature stays a cool 58 degrees year-round, and the salt keeps the humidity at an even 55 percent. There are no bugs, rats, or other animals living in the mine, because there is nothing for them to eat (Zacharias). The air itself is very clean in a salt mine, with no mold or other allergens like on the surface (Modern).

The writer includes an interesting fact.
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The Detroit salt mine could have a very interesting future. According to geologists, there is enough salt underneath Michigan to last for 70 million years (“Dry”). Many people worry, though, that the runoff from road salt is having a negative effect on our rivers and lakes. If people stop using salt on icy streets and highways, there may not be enough business to keep the Detroit mine open. In that case, the mine could be used to store important documents, films, and artwork as some other salt mines do (Tanner). If nothing else, the Detroit salt mine could be turned into a public museum because it is an important part of the city’s history.

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Some final possibilities leave the reader with something to think about.