

Shasta Dam

James Folta



Shasta Dam is one of the largest dams in the United States. The dam is 602 feet tall and 883 feet thick at its base. Located in Northern California, it blocks the flow of California's biggest river, the Sacramento River. This dam forms a big lake behind it, Lake Shasta, which has a 365-mile-long shore line.

The dam's main use is to provide water for farms in California's Central Valley. The Central Valley is 400 miles long, and grows over 250 different types of fruits and vegetables. The dam protects the farms from floods and salt water that might travel down the river from San Francisco Bay. It also provides water for people in nearby towns to drink and use. It has a hydroelectric power plant that creates electricity.

Shasta Dam isn't the only dam in the area. It is just one part of the Central Valley Project, a huge system of dams and reservoirs that provides water to the farms in the Central Valley. This water system was initially conceived of in the 1870s, after people moved to the area in the 1850s. People flocked to California because of the gold rush, hoping to get rich by mining for gold. While most people didn't strike it rich, many ended up staying in the area and farming. But the valley has contrasting rain patterns. In the north, there is

more than 30 inches of rain per year, while the south gets less than 5 inches. There are also droughts, when almost no rain falls at all. Additionally, the Central Valley is at a risk to be flooded due to spring rain and infiltrated by saline water coming from the bay. Since farms need water to grow plants, the farmers needed a better, more reliable way to get water. This is why the Central Valley dams were built.

The Shasta Dam took many years to build, starting in 1937 and ending in 1945. Many thousands of workers helped build it. In fact, there was so much work to be done that building contractors had to join together in groups to finish it.

The first step was to have 4,700 men dig out millions of tons of granite to make room for the dam. An almost 10-mile conveyor belt ran 24 hours a day to move the rocks away. Next, a railroad brought in dry cement. It was mixed with Sacramento River water, rock, and sand to make wet cement. Before it dried, the workers had to quickly rush the cement to the dam using a custom-built cable system. Once there, the cement was poured into interlocking wooden structures to form the large blocks that make up the dam. After two days, the cement was dry and the wooden structures were broken down and taken away, leaving the dried cement blocks.

Overall, the dam has been a positive addition to the Central Valley, allowing people and farms to thrive. But there are also drawbacks to the dam. The biggest loss is what is now buried under Lake Shasta. When the dam was built, Native American villages and sacred places belonging to the Winnemem Wintu tribe were flooded, and the people who lived there were forced to move. Local salmon were also affected. Because of changes in the Sacramento River from the dam, the salmon have had a harder time living, traveling, and breeding in the river. Fortunately, the dam has a water temperature control system to help the salmon survive.

The Shasta Dam is an extremely impressive structure, and is the result of hard work by many people. The dam allows many more people to live and work in the area today. The Central Valley of California would not be the same without it.

Name: _____ Date: _____

1. What is the main use of the Shasta Dam?

- A to aid in the migration of salmon up the Sacramento River
- B to protect farms in the Central Valley from floods and saltwater
- C to provide water for farms in California's Central Valley
- D to generate electricity using a hydroelectric plant

2. The cause of changes in the Sacramento River is the construction of the Shasta Dam. What is an effect?

- A Salmon have a hard time living, traveling, and breeding in the river.
- B Farmers need a better, more reliable way of watering their crops.
- C People flock to California, hoping to get rich by mining for gold.
- D California's Central Valley is at risk of flooding due to spring rains.

3. The Central Valley Project was developed to address the problem of unreliable rainfall in the valley. What evidence from the passage supports this conclusion?

- A "This water system was initially conceived of in the 1870s, after people moved to the area in the 1850s."
- B "In the north, there is more than 30 inches of rain per year, while the south gets less than 5 inches. There are also droughts, when almost no rain falls at all."
- C "Shasta Dam isn't the only dam in the area. It is just one part of the Central Valley Project, a huge system of dams and reservoirs that provides water to the farms in the Central Valley."
- D "The Shasta Dam took many years to build, starting in 1937 and ending in 1945. Many thousands of workers helped build it."

4. Based on the passage, which of the following conclusions can be made about salmon?

- A The Shasta Dam only minimally affects local salmon populations.
- B Salmon are hardy fish that can survive in many different environments.
- C Local salmon populations increased after the Shasta Dam was built.
- D Salmon can only live within certain water temperatures.

5. What is this passage mostly about?

- A the Winnemem Wintu people and the destruction of their land
- B how the Shasta Dam helps farmers in California's Central Valley
- C the Shasta Dam and its effects on the surrounding area
- D the planning process and construction of the Shasta Dam

6. Read the following sentences: "But the valley has **contrasting** rain patterns. In the north, there is more than 30 inches of rain per year, while the south gets less than 5 inches."

As used in this sentence, what does "**contrasting**" most nearly mean?

- A similar
- B different
- C interesting
- D infrequent

7. Choose the answer that best completes the sentence below.

_____ plans for the Shasta Dam were originally drafted during the 1870s, construction of the dam did not begin until 1937.

- A Ultimately
- B For example
- C Namely
- D Although

8. Explain an advantage of the Shasta Dam.

9. Explain a drawback of the Shasta Dam.

10. Explain whether the Shasta Dam should be considered a positive or negative addition to California's Central Valley. Support your answer using information from the passage.

Teacher Guide & Answers

Passage Reading Level: Lexile 1000

1. What is the main use of the Shasta Dam?

- A to aid in the migration of salmon up the Sacramento River
- B to protect farms in the Central Valley from floods and saltwater
- C to provide water for farms in California's Central Valley**
- D to generate electricity using a hydroelectric plant

2. The cause of changes in the Sacramento River is the construction of the Shasta Dam. What is an effect?

- A Salmon have a hard time living, traveling, and breeding in the river.**
- B Farmers need a better, more reliable way of watering their crops.
- C People flock to California, hoping to get rich by mining for gold.
- D California's Central Valley is at risk of flooding due to spring rains.

3. The Central Valley Project was developed to address the problem of unreliable rainfall in the valley. What evidence from the passage supports this conclusion?

- A "This water system was initially conceived of in the 1870s, after people moved to the area in the 1850s."
- B "In the north, there is more than 30 inches of rain per year, while the south gets less than 5 inches. There are also droughts, when almost no rain falls at all."**
- C "Shasta Dam isn't the only dam in the area. It is just one part of the Central Valley Project, a huge system of dams and reservoirs that provides water to the farms in the Central Valley."
- D "The Shasta Dam took many years to build, starting in 1937 and ending in 1945. Many thousands of workers helped build it."

4. Based on the passage, which of the following conclusions can be made about salmon?

- A The Shasta Dam only minimally affects local salmon populations.
- B Salmon are hardy fish that can survive in many different environments.
- C Local salmon populations increased after the Shasta Dam was built.
- D Salmon can only live within certain water temperatures.**

5. What is this passage mostly about?

- A the Winnemem Wintu people and the destruction of their land
- B how the Shasta Dam helps farmers in California's Central Valley
- C the Shasta Dam and its effects on the surrounding area**
- D the planning process and construction of the Shasta Dam

6. Read the following sentences: "But the valley has **contrasting** rain patterns. In the north, there is more than 30 inches of rain per year, while the south gets less than 5 inches."

As used in this sentence, what does "**contrasting**" most nearly mean?

- A similar
- B different**
- C interesting
- D infrequent

7. Choose the answer that best completes the sentence below.

_____ plans for the Shasta Dam were originally drafted during the 1870s, construction of the dam did not begin until 1937.

- A Ultimately
- B For example
- C Namely
- D Although**

8. Explain an advantage of the Shasta Dam.

Suggested answer: Answers may vary and may include: The Shasta Dam provides water for many farms, allowing them to thrive.

9. Explain a drawback of the Shasta Dam.

Suggested answer: The Shasta Dam flooded land belonging to the Winnemem Wintu and forced them from their homes.

10. Explain whether the Shasta Dam should be considered a positive or negative addition to California's Central Valley. Support your answer using information from the passage.

Suggested answer: Answers may vary and should be supported by the passage. Students may argue for or against the Shasta Dam, as long as they support their position.

e.g. The Shasta Dam should be considered a positive addition to California's Central Valley. Although the dam has caused some problems (obstructing salmon migration; destroying Native American land), the benefits of the dam (water for farms and drinking; hydroelectric power plant) outweigh these drawbacks.