

## Deep Dive (English 8)

Required Annotations		Student-Created Annotations		Summary / Questions / Reflection	
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Only 6 inches of **acrylic** protects us from the bone-crushing pressure of the depths of the Pacific Ocean. I peer at the red tube worms at the bottom of the sea gently swaying in the water outside the porthole the three of us inside the **submersible** *Alvin* are among just a handful of people to ever lay eyes on these creatures.

Our dive in the *Alvin* was part of a scientific expedition aboard the research ship *Atlantis*. The trip was led by microbiologist Stefan Sievert of the Woods Hole Oceanographic Institution in Massachusetts. He studies the life surrounding deep-sea vents, places where hot fluid gushes from the seafloor

Earlier that morning, Sievert, the sub's pilot Phil Forte, and I had climbed into *Alvin*'s 6.9-foot-wide titanium sphere. That's about as small as the interior of a Mini Cooper car.

The day before, an instrument for collecting microbes was lowered to the seafloor. Our first task was to find it and move it to the vents. Once we were in the water, Forte radioed to the *Atlantis* for the instrument's position. "What's the x, y?" he asked. After getting the **coordinates**, he adjusted the sub's settings to begin our descent.

After moving the instrument, we visited a vent where warm, shimmering fluid was gently drifting into the sea. Microbes use minerals in the fluid to make food such as sugar. Their activity supports a whole ecosystem of animals, including crabs, fish, mussels, and giant worms.

Our next target: another instrument that had collected microbes overnight. We sent it back up to the surface for scientists on the ship to process. Next, we spent a few hours collecting fluids and worms. The sub's pilot used *Alvin*'s robotic arm to grab them.

Our last stop was a black smoker—a towering chimney that shoots out scorching-hot black fluid. By then it was late afternoon, and *Alvin*'s batteries were running low. It was time to start the 90-minute trip back to the surface with our **haul** of samples for the scientists aboard the ship.

## Summary

Write an objective summary of this article.