### **Scientists discover new water purification microbes**

Scientists have unearthed a previously unknown species of microbes in the earth beneath us. Researchers at Michigan State University have been exploring an area just below and above the Earth's surface called the Critical Zone. This zone is essential to providing the conditions that sustain life. The researchers called the microbes CSP1-3. The microorganisms could be a key part of the process of purifying our water. Microbiologist James Tiedje said that while layers of soil are responsible for much of the filtration of rainwater, CSP1-3 are also indispensable. He said: "CSP1-3 are the scavengers cleaning up what got through the surface layer of soil." They have a job to do to purify our drinking water.

Dr Tiedje and his team focused on the microbes living in the deep soil, up to 200 metres beneath our feet. He said the CSP1-3 microbes remove harmful contaminants and detritus from the water supply. He now wants to cultivate CSP1-3 in his lab to find out more about their properties. He believes they could be utilized to clean up pollution in the soil. He said: "We don't know their capacities for metabolizing tough pollutants and, if we could learn that, we can help solve one of the Earth's most pressing problems." The scitechdaily.com website said: "Understanding this newly found group could boost conservation efforts and help address climate change."

**Homework:**

1. Write a full sentence answer for each question below.
2. What university are the researchers from?
3. What area of the Earth did the researchers look at?
4. What is the area essential in providing conditions for?
5. What role did a microbiologist say the CSP1-3 microbes have?
6. What job do the microbes have to do with our drinking water?
7. How far beneath the earth do the microbes live?
8. What do the CSP1-3 microbes remove from our water supply?
9. What does the microbiologist want to do to the microbes in his lab?
10. What does the microbiologist think the microbes can solve?
11. What could the microbes help to address?

**Free Writing**

* Write about the lesson page for 10 minutes.