

Discover



About the Series

Coming up with better ways to get where we need to go and power the lives we live requires development of new technologies, along with research to help us minimize the impact of these technologies on our environment. The overall goal of this series is to encourage people to ask questions and look beyond fossil fuels for innovative solutions to our ever-growing energy needs. Interest in science and technology provides the necessary foundation for our future in a world powered by clean energy. The series also provides insight into what careers in science, engineering and other topics related to clean energy technologies are really like.

In this Episode

A trip to [Snowy River](#), a bright white crystalline formation found deep within Fort Stanton Cave in New Mexico, reveals a lot about life and energy in unexpected places. Host Lisa Van Pay meets Diana Northup and Monica Moya, researchers who study life in caves. As they explore the cave they ask questions, think of possible answers and ways to test them, and discuss how to share their findings with the community.

Together, science and engineering have resulted in advancements that have changed our lives dramatically. Now more than ever, the boundaries between science, technology and engineering blur together to extend our knowledge even further—but where does something completely new begin? Exploration and discovery, along with the acts of asking questions and pursuing answers, are at the heart of innovation. This episode serves as an example of the many ways curiosity-driven research can lead to new ways of thinking or new technologies.

The Subsurface Life in Mineral Environments (SLIME) Team

As part of the SLIME team, Diana and Monica have studied life in lots of different places, from the lab to deserts to caves. Check out some of their adventures [here](#).

Snowy River

In 2001, cave explorers discovered miles of new cave passage within the Fort Stanton Cave in Lincoln County, N.M. The discovery was one of the largest and most important American cave discoveries in decades. [The area](#) is currently maintained by the Bureau of Land Management.

Concepts

- Chemical elements form organic molecules that interact to perform the basic functions of life.
- Physical and chemical properties reflect the nature of the interactions between molecules or atoms, and can be used to classify and describe matter.

Content Standards

Biology Grades 6-8*

2. Recognize that all organisms are composed of cells, and that many organisms are single-celled (unicellular), for example, bacteria and yeast. In these single-celled organisms, one cell must carry out all of the basic functions of life.
10. Give examples of ways in which genetic variation and environmental factors are causes of evolution and the diversity of organisms.

Chemistry and Physics Grades 6-8*

5. Recognize that there are more than 100 elements that combine in a multitude of ways to produce compounds that make up all of the living and nonliving things we encounter.
10. Differentiate between physical changes and chemical changes