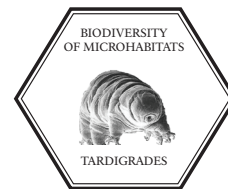


# POST-SITE ACTIVITY

## EXTREME CREATION



**Grade Level:** High School

**Subject Area:** Science

**Activity time:** 30 minutes

**Setting:** Classroom

**Skills:** Communicating, Connecting, Describing, Drawing

### **Vocabulary:**

- **Extremophile:** an organism that thrives in and even may require physically or geochemically extreme conditions that are detrimental to the majority of life on Earth.

### **Materials:**

- Computer with Internet connection
- Colored pencils, crayons, or colored markers
- Blank paper

### **Objectives:**

- 1) understand the definition and classification of extremophiles
- 2) be able to list examples of earthly extremophiles
- 3) create their own extremophile creation

### **Background:**

Students were able to experience one type of extremophile during their field trip in the Smokies, the tardigrade. In this lesson students are able to explore in more depth other examples and classifications of extremophiles. Additionally this lesson allows for discussion on how people must adapt to living in extreme environments and different time periods and how inventions have changed those living conditions.

### **Procedure:**

Go to the following websites for information about extremophiles:

1. Examples of earthly extremophiles: [http://nai.arc.nasa.gov/poster/poster\\_images/astrobioactivity1-studenthandout.pdf](http://nai.arc.nasa.gov/poster/poster_images/astrobioactivity1-studenthandout.pdf)
2. Life in extreme environments: <http://www.spaceref.com/news/viewnews.html?id=463>

Either download the information from the websites for students or have the students themselves read it from the computer. Discuss what they have learned about extremophiles.

Ask students to imagine an extreme environment on earth and what you would need in order to survive in those conditions. After imagining these extreme conditions, create an imaginary animal with characteristics to withstand these extreme conditions. List the characteristics and the name of animal to the side of the imaginary animal drawing. Have students present their animal creations.

