

## Girls into Geoscience Workshops 2019

Please rank your top 4 workshops, we will aim to allocate you your top choices of workshop, however this will be on a first comes first served basis.

Many thanks!

### **Workshop 1: Discovering the rocks beneath the seafloor: Celebrating 50 years of Scientific Ocean Drilling – Dr Michelle Harris**

In this session you will be introduced to the history of scientific ocean drilling and one of the highlighted achievements of this program – the sampling of an intact section of ocean crust. You will be introduced to some of the key skills used by geologists to describe igneous rocks, and use these skills to reconstruct a profile through the ocean crust using a variety of samples from the seafloor. We will also have one of the core replicas provided by IODP to demonstrate how scientists use these cores to study the rocks beneath the seafloor.

### **Workshop 2: Microfossils and Climate – Dr Jodie Fisher**

Come and explore how microscopic shells are used to reconstruct past environments and changes in global climate. Get hands-on experience of examining deep-sea sediments using microscopes and use these amazing microfossils to reconstruct 100,000 years of climate change in just 30 minutes!

### **Workshop 3: Reconstructing catastrophic floods in Earths Martian desert– Prof Anne Mather**

This workshop will use a combination of virtual reality, satellite imagery and field data to evaluate the role of climate and tectonics in generating catastrophic floods in the driest place on Earth, the Atacama Desert of South America. We will examine how we can reconstruct the events and how this can help us understand flood hazards in deserts and on other planetary bodies such as Mars.

### **Workshop 4: Causes and effects of earthquakes – Dr Lucy Campbell and Dr Zoe Mildon**

Earthquakes can cause devastating damage – we therefore need to understand both what causes them, and how to reduce their effects. In this session you will recreate some of the physical mechanisms of earthquakes before testing out some methods that help mitigate against their hazards.