#### **LESSON PLAN**

# **12 METEORITE HUNTER**



**OVERVIEW** 

In this activity, students will learn about the properties of the different types of Earth rocks and the rock cycle.

They will also learn the basics of meteorite hunting.

They will then apply this, along with the use of a classification chart and scientific testing, to identify the samples in their meteorite hunter boxes, and to find the meteorites within their samples. **URRICULUM LINKS** 

Observing objects, using simple equipment making accurate measurements using standard units using a range of equipment.

Classification.

Rock cycle.

Types of rock.

### WHAT YOU NEED

### A12 PowerPoint

**5 meteorite hunters boxes** (one per group)

**5 magnaprobes** (one per group)

12.1 worksheet (one per student)

**12.2 rocks cheat sheet** (one per group)

(Optional) USB microscopes attached to a computer running VLC media player

2 hand lenses per group



### **STARTER**

Use the introduction slides to summarise the rock cycle and the different types of rock.

Ask students what kind of rocks they think asteroids would be most like and why. Then run through the basic qualities of a meteorite.

Prior to the lesson, remove and set aside the tektites (white dots) from the meteorite hunters boxes for use later in the lesson.



#### **LESSON PLAN**

### **METEORITE HUNTER**



### **MAIN ACTIVITY** 1

Students use the cheat cards to attempt to identify the TYPES of rock that each sample is. By testing for magnetism, and observing the samples with the hand lenses they can attempt to classify the rocks into groups.

This works best if the group splits into two, and shares the work (and the hand lenses) and then checks to see that they agree with each other.

Discuss their answers. If you wish you can take a further look at some of the samples under the USB microscope to get



## **MAIN ACTIVITY 2**

Students will now use a classification chart to answer a series of yes or no questions to enable them to identify exactly what each sample is. To begin with, go through the chart with the class using the green dot rock (iron pyrite) to show them how such a chart works.

The groups then complete the activity. You may wish to have a copy of the guide to the meteorite hunters boxes on hand to help answer any questions about the samples. <complex-block><complex-block>

a better view of grain size and shape.



# PLENARY

Run through the answers on the powerpoint and ask students whether these agree with their original decisions about the types of rock in the boxes. What was difficult? Were any of the samples very similar or hard to identify? Stress that with so many different processes forming rocks, some very different rock types can have, on the surface, very similar features.

If you wish, you can finish by placing the tektites (white dots) on each table and asking students what they think these are.

As soon as the box is no longer needed, please check that each group has returned all of the items to the meteorite hunters boxes, especially the small iron meteorite.