Collecting Micrometeorites
(from Science Fair Guide - http://science-fair-guide.info/)

Every day material from space passes through our atmosphere and lands on the Earth’s surface. This includes dust from space or micrometeorites that are the very small cousins of meteorites that we often see as shooting stars. This page will provide you with a simple method to collect micrometeorites and a few ideas for science fair projects.

Materials

- White paper or plastic - large sheet
- Magnifying glass or microscope
- Magnet
- Collecting jars, vials, or old photographic film cases

Safety Concerns: None

Procedure

1. A clear day is best for collecting, any time of the year.

2. Unfold the sheet and leave it outside for several hours.

3. Collect the sheet being careful to roll the sides up to make sure that all of the collected material goes to the center of the sheet.

4. Place a magnet under where the material has been collected.

5. Gently tilt the sheet to remove non-magnetic material.

6. Collect the magnetic material in small containers. Old photographic film cases are ideal.

7. The collected material can be inspected with the magnifying glass or microscope at a magnification of 10 - 20 X.
Note: micrometeorites are dark spherical objects with pitted surfaces. Here is a photograph of micrometeorites.

![Micrometeorites](from keatstelescope.blogspot.com)

**Additional Activities**

- Try measuring how much material falls to Earth over different periods of time. Is it constant? Can you calculate how much falls on the earth each day?
- Compare the amount of material falling each day and try connecting the amounts with different astronomical events. This can include phases of the moon. Over much longer periods, try to compare the passing of meteor showers with the amount of material.