

Design a Soil Collector

Topic: Mining

Background Information:

During the exploration drilling process an auger is used to take a core sample. The sample is used to ascertain the depth and grade of bauxite within an area.

You will need:

- A3 paper
- Pencil
- Ruler

What You Need to Do

Design a piece of equipment to conduct soil sampling for exploration drilling. This activity can be done in small groups, pairs or individually.

Extension/ Alternatives

Modify the design to utilise materials that are readily available then construct the soil sampler and test how well it works.

In groups, brainstorm how you could analyse the samples that have been taken. Each group can analyse a different soil sample. It is important that the same method for analysing is used by each group so that the results of each analysis can be compared fairly.

Final Question:

How well did the sampler work?
What modifications could improve performance?
How did the samples compare to each other?

Curriculum Links:

Society & Environment: Investigation, Communication & Participation, Place and Space, Natural and Social Systems, Resources, Active Citizenship

Science: Investigating, Earth and Beyond

Technology and Enterprise: Technology Process, Materials, Enterprise

