

## Excavator Arms

### Topic: Mining

#### Background Information

Mining requires the use of large mobile equipment such as excavators, haul trucks, scrapers, graders, and bulldozers. The type of equipment used is dependant on the type of mining and which part of the mining process is taking place. Excavators are used to mine bauxite.

#### You will need

- A3 paper
- Pencil
- Ruler

#### What You Need To Do

- Design the arm of an excavator. You will need to take into consideration the arm and bucket movement.

#### Extension/ Alternatives

- Gather materials and build the arm that you have designed. You will need to take into consideration the weight of materials that your excavator can carry, as well as the arm and bucket movement.
- Test the model.
- What is the capacity of the bucket?
- What weight can the arm lift?

#### Curriculum Links

**Society & Environment:** Investigation, Communication & Participation, Resources

**Science:** Energy and Change

**Technology and Enterprise:** Technology Process, Materials, Enterprise, Technology Skills,

**Mathematics:** Measurement