

## QAST Weekly Challenge

# Weighing Device

Introduction: People often need to know how much things weigh, especially whilst cooking. The correct ratios and proportions can make all the difference between a delicious experience or a culinary disaster when baking a cake or preparing a meal

Your challenge: make a weighing device that can weigh cooking ingredients in multiples of 50g. Research into hanging spring balances and unequal arm balances to give you some ideas.

Resources: For this task you may use the following;

### Spring balance

Elastic bands  
A wire coat hanger  
A pair of pliers  
A paper plate or bowl  
string

Process:

### Spring balance

Cut the wire coat hanger in to two equal halves  
Put a small loop in the end of each piece  
Create a hook on the end of each piece  
On one piece of coat hanger put an s bend in about 5cm from the hook  
Fit rubber bands to the scale as shown  
Use the string and paper plate to make a bowl for the ingredients.  
Put a known weight on the plate and mark that weight on the upright.  
Mark 50g intervals on the upright of the scale

### Unequal arm balance

Cardboard from a cereal packet or similar  
Cardboard tube (from a roll of kitchen paper)  
A wooden skewer  
A paper plate or bowl  
string

### Unequal arm balance

Put a hole through the top of the cardboard tube  
Cut a slot in the top of the cardboard tube at 90 degrees to the holes  
Cut and fold the cardboard to create the weighing arm.  
Cut a hole through the weighing arm and secure it in place with the skewer.  
Use the string and paper plate to make a bowl for the ingredients.  
Put a known weight on the plate and on the weighing arm and mark that weight on the upright.  
Mark 50g intervals on the weighing arm