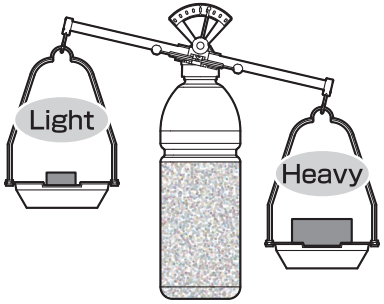
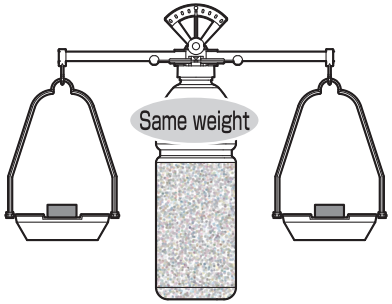
How to use the balance

○Check that both sides are balanced. If they are not balanced, shift the balance using the adjustable rod.

○Place a weight on each side.



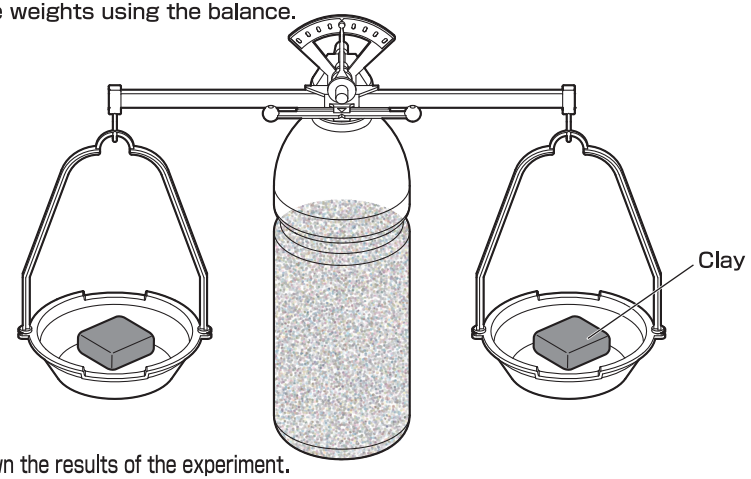
When the object on the right is heavier,
↓
The right-hand side will be lower.



When the objects on both side have the same weight,
↓
The two sides will be balanced.
(Becomes horizontal)

Experiment 1 Compare weights by changing the shape of the object (shape and weight) .

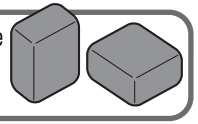
○Divide the clay into halves, place them on both sides, and balance them against each other.
○Change the shape of one half of the clay and compare the weight of the two halves in your hands.
○Compare the weights using the balance.



☆Let's write down the results of the experiment.
(e.g., how heavy were the clay?).

Shape	Weight (felt on hand)	Weight (measured on scale)
Sphere	Expectation write down your expectation Results No change	Expectation write down your expectation Results No change
Flat	Expectation write down your expectation Results No change	Expectation write down your expectation Results No change
Thinly stretched	Expectation write down your expectation Results No change	Expectation write down your expectation Results No change
Small pieces	Expectation write down your expectation Results No change	Expectation write down your expectation Results No change

Let's try it out!
○What will happen to the texture and weight if you change the shape of the clay?



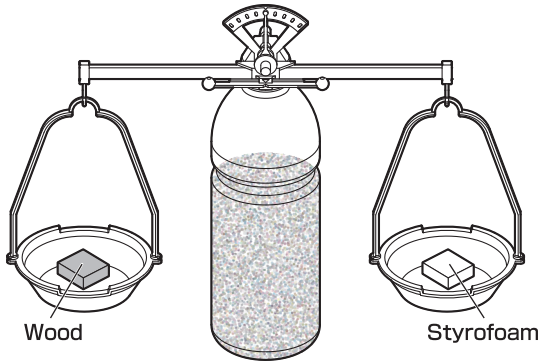
Let's try it out!
○Cut the aluminium foil in half with scissors, place it on both sides of the balance.
○Change the shape of one of the aluminium foils and compare the weight using the balance.

☆Let's write down the results of the experiment.
(e.g., how heavy were the clay?).

Shape	Weight (measured on scale)
Thin strips	Expectation write down your expectation Results No change
Sphere	Expectation write down your expectation Results No change
Small pieces	Expectation write down your expectation Results No change

Experiment 2 Compare the weights of objects with the same volume (volume and weight).

○Hold a piece of wood and a piece of styrofoam of the same size in your hand and compare their weights.
○Compare the weights using a balance.



☆Write down which is heavier and which is weaker, and summarise what you found out in the experiments.

Weight (felt on hand)	Weight (measured on scale)
Expectation write down your expectation	Expectation write down your expectation
Results The wood is heavier	Results The wood is heavier

Findings

<Example>
Even if the volume is the same, the weight is different depending on the object.

Let's try it out!
○Put the clay in the water and find out how the water level has changed.
○If you change the shape of the clay, what will happen to the water level?