

Reversible or Irreversible?

Heat the materials below and complete the tables below.

Material	Description before heating	Will the change be reversible?
chocolate		
wax		
cheddar cheese		
plasticine		
butter		
egg		

Material	Description after heating	Was the change reversible?
chocolate		
wax		
cheddar cheese		
plasticine		
butter		
egg		

Reversible or Irreversible? Answers

Material	Description before heating	Will the change be reversible?
chocolate	a solid substance	yes
wax	a solid substance	yes
cheddar cheese	a solid, orange-to-yellow coloured substance	no
plasticine	a solid, putty-like substance	yes
butter	a solid, yellow-to-white coloured substance	yes
egg	a white liquid substance with a soft, solid yellow yolk	no

Material	Description after heating	Was the change reversible?
chocolate	The solid chocolate melted. As it cooled, it became solid again.	yes
wax	The solid wax melted. As it cooled, it became solid again.	yes
cheddar cheese	The solid cheese became melted. As it cooled, it became solid again but was not the same texture.	no
plasticine	The soft, putty-like plasticine became soft and slimy. When frozen, it returned to a soft, putty-like substance.	yes
butter	The solid butter became melted. As it cooled, it became solid again.	yes
egg	The egg became hard-boiled.	no

Note: If butter is melted to become liquid, it is reversible change because it can become solid again by freezing. However, if the butter is continually heated until it burns, a chemical change occurs which means it is an irreversible change.