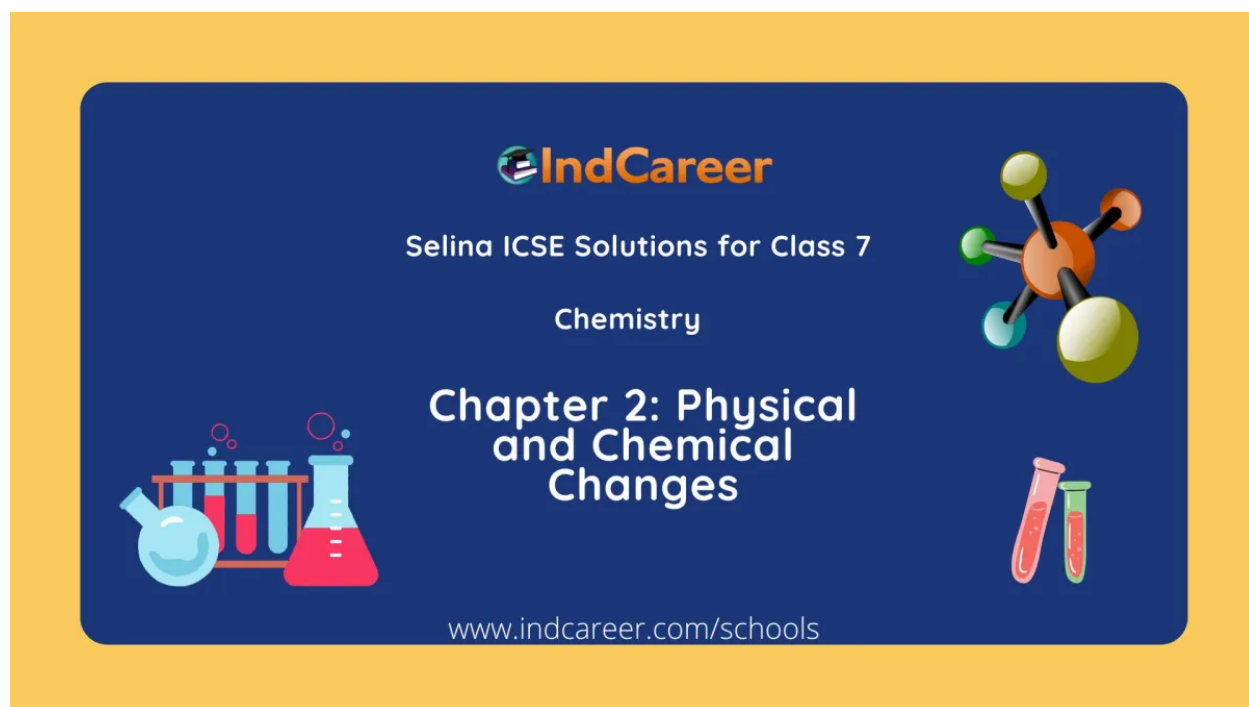


Selina Class 7 ICSE Solutions Chemistry :

Chapter 2- Physical and Chemical Changes



For any clarifications or questions you can write to **info@indcareer.com**

Postal Address

IndCareer.com, 52, Shilpa Nagar, Somalwada Nagpur - 440015
Maharashtra, India

WhatsApp: +91 9561 204 888, **Website:** <https://www.indcareer.com>Class 8: Biology
Chapter 6 solutions. Complete Class 8 Biology Chapter 6 Notes.

<https://www.indcareer.com/schools/selina-class-7-icse-solutions-chemistry-chapter-2-physical-and-chemical-changes/>



Selina Class 7 ICSE Solutions Chemistry :

Chapter 2- Physical and Chemical Changes

Class 7: Chemistry Chapter 2 solutions. Complete Class 7 Chemistry Chapter 2 Notes.

Selina Class 7 ICSE Solutions Chemistry : Chapter 2- Physical and Chemical Changes

Selina 7th Chemistry Chapter 2, Class 7 Chemistry Chapter 2 solutions

Exercise

Question 1.

(a) **Define:**

- (i) a physical change
- (ii) a chemical change

(b) **Give two examples for each of the above two changes.**

Answer:

(a) (i) Physical change : A temporary change in which no new substance is formed, the composition of substance remains the same, though its state, shape and size may change.

(ii) Chemical change : A permanent change in which new substances are formed whose composition and properties are completely different from those of the original substances.

(b) Physical change:

<https://www.indcareer.com/schools/selina-class-7-icse-solutions-chemistry-chapter-2-physical-and-chemical-changes/>

(i) Change of water into its vapours.

(ii) Heating of iron rod.

Chemical change:

(i) Burning of wood.

(ii) Breathing.

Question 2.

What are reversible and irreversible changes ? Give one example for each.

Answer:

1. **Reversible change** : When a change in a substance can be reversed by changing the conditions, it is said to be a reversible change.

Example : Melting of ghee or wax.

2. **Irreversible change** : When a substance can not be brought back to its original state after a change, it is said to be an irreversible change.

Example : Souring of milk.

Question 3.

Mention a change which is always

Answer:

1. **Desirable** : Changes that are useful to man are desirable changes, e.g. change of milk into curd.
2. **Undesirable** : Change that brings about destruction is an undesirable change, e.g. floods and epidemics are undesirable changes.
3. **Periodic** : Changes that are repeated at regular intervals of time are called periodic changes, e.g. change of day and night.

Question 4.

Is burning a physical change or a chemical change? Why?

<https://www.indcareer.com/schools/selina-class-7-icse-solutions-chemistry-chapter-2-physical-and-chemical-changes/>

Answer:

Burning is a chemical change as new substance is formed with new properties and it cannot be reversed.

Question 5.

A burning candle shows both physical and chemical changes. Explain ?

Answer:

A burning candle produces wax vapours which solidify and form wax again is physical change. At the same time wax on burning produces water vapours and carbondioxide which escape into the atmosphere which are new substances with new properties. It is a chemical change.

Hence burning of candle shows both physical and chemcial changes.

Question 6.

State three differences between evaporation and boiling

Answer:

Evaporation

Evaporation is a slow process. Evaporation takes place from the surface of the liquid. Evaporation takes place at all temperature.

Boiling

Boiling is a fast process. Bgiling takes place from all parts of the liquid. Boiling takes place at a fixed temperature on heating.

Question 7.

State four differences between physical and chemical changes.

Answer:

<https://www.indcareer.com/schools/selina-class-7-icse-solutions-chemistry-chapter-2-physical-and-chemical-changes/>

Four differences are :

Physical change

No new substances with new properties are formed. It can be reversed by simple physical methods. It is temporary change. Energy is neither needed nor produced.

Chemical change

New substances with new properties are formed. Change cannot be reversed by simple physical methods. It is permanent change. Energy is either needed or evolved.

Question 8.

What do you observe when :

1. **water is boiled**
On boiling water changes into steam (gas) physical change.
2. **a piece of paper is burnt**
On burning piece of paper produces carbon dioxide and ash is left behind. Is a chemical change.
3. **some ice cubes are kept in a glass tumbler**
Ice cubes (solid) turn into water (liquid) only state changes (physical change).
4. **solid ammonium chloride is heated**
Solid ammonium chloride on heating changes into vapours (change of state) is physical change.
5. **an iron nail is kept in tap water for few days**
We observe reddish brown coating on the nail called rust (entirely new substance) is chemical change.
6. **a spoon of sugar is heated in a pan**
When a spoon of sugar is heated in a pan, black (charred sugar) (carbon) is seen. Is a chemical change.
7. **lighted match stick is brought near the mouth of the test tube containing hydrogen gas.**

<https://www.indcareer.com/schools/selina-class-7-icse-solutions-chemistry-chapter-2-physical-and-chemical-changes/>

We observe that hydrogen burns at the mouth of test tube with blue flame and pop sound is heard. It is chemical change.

8. **quick lime is dissolved in water.**

The following two observations will be observed

- (i) A hissing sound is observed.
- (ii) The mixture starts boiling and lime water is obtained.

9. **little ammount of curd is added to a bowl containing warm milk and kept for five hours.**

When a little amount curd is added to a bowl containing warm milk and kept for five hours, a permanent change occurred.

The milk will change to curd. On boiling water changes into steam (gas) physical change.

Question 9.

Name a chemical change which takes place in presence of:

Answer:

Heat:

- 1. Burning of paper.
- 2. Cooking of food need heat.

Light :

- 1. Formation of food by plants i.e. photosynthesis need light.
- 2. Hydrogen and chlorine react in presence of light

Electricity:

- 1. Water breaks into hydrogen and oxygen on passing electricity.
- 2. Sodium chloride solution breaks up into its components sodium and Chlorine on passing electric current through sodium chloride solution.

Objective Type Questions

Question 1.

<https://www.indcareer.com/schools/selina-class-7-icse-solutions-chemistry-chapter-2-physical-and-chemical-changes/>

Fill in the blanks.

1. A new substance is always formed in a **chemical** change.
2. Melting of ice is a **physical** change.
3. When a candle burns, wax melts. Melting of wax is a **physical** change.
4. Chemical change occurs as a result of **rearrangement of atoms** between two substances.
5. Burning of a fuel is a **chemical** change.
6. Revolution of the earth around the sun is a **natural periodic** change.
7. Growing of a seedling into a plant is **chemical** change.

Question 2.

State whether the following are physical or chemical changes.

1. **glowing of a bulb** – physical change,
2. **burning of sugar** – chemical change,
3. **heating of water** – physical change,
4. **growing of a piglet into a pig** – chemical change,
5. **burning of wood** – chemical change,
6. **passing electric current through a heater rod** – physical change.
7. **water cycle in nature** – physical change,
8. **respiration in living beings** – chemical change,
9. **shaping a piece of glass** – physical change,
10. **lightning** – chemical change,
11. **(energy produced) dissolving sugar in water** – physical change,
12. **heating a mixture of iron filings and sulphur** – chemical change.
13. **mixing oil with water** – physical change.
14. **cutting wood into small pieces** – physical change,
15. **photosynthesis** – chemical change.
16. **Digestion of food** – chemical change.
17. **Melting of wax** – physical change.
18. **Boiling of an egg** – chemical change.
19. **Slaking of lime** – chemical change.

<https://www.indcareer.com/schools/selina-class-7-icse-solutions-chemistry-chapter-2-physical-and-chemical-changes/>

Question 4.

Write true or false against the following statements :

1. Cutting of paper into pieces is a chemical change.
False
2. Rusting of iron is a chemical change.
True
3. Earthquake is a desirable change.
False
4. Melting of ice is a physical change.
True
5. Burning of sugar is a temporary change.
False

Multiple Choice Questions

Tick (✓) the correct alternative from the choice given for the following statements :

Question 1.

A substance which can not sublime is

Answer:

1. iodine
2. camphor
3. **sugar**
4. dry ice

Question 2.

When you put some ice cubes in a glass, droplets of water are formed on the outerwall of the glass. This explains the phenomenon of

Answer:

1. melting

<https://www.indcareer.com/schools/selina-class-7-icse-solutions-chemistry-chapter-2-physical-and-chemical-changes/>

2. freezing
3. **condensation**
4. evaporation

Question 3.

Burning is a

Answer:

1. slow process
2. **fast process**
3. natural process
4. none of the above

Question 4.

Which one of the following is volatile in nature ?

Answer:

1. common salt
2. **petrol**
3. water
4. milk

Question 5.

An example of both physical and chemical change is

Answer:

1. **burning of candle**
2. melting of ice
3. cooking of food
4. blowing of bulb

Question 6.

<https://www.indcareer.com/schools/selina-class-7-icse-solutions-chemistry-chapter-2-physical-and-chemical-changes/>

The compound rust is a hydrated oxide of

Answer:

1. copper
2. aluminium
3. **iron**
4. gold

Question 7.

When sugar is heated, its colour changes into

Answer:

1. red
2. brown
3. **black**
4. grey

Question 8.

A pop sound is heard when a lighted match stick is brought near the mouth of a jar. This indicates the release of gas.

Answer:

1. oxygen
2. **hydrogen**
3. nitrogen
4. water-vapour

Question 9.

When we add water to the following substances, which one will show a chemical change ?

Answer:

<https://www.indcareer.com/schools/selina-class-7-icse-solutions-chemistry-chapter-2-physical-and-chemical-changes/>

1. salt
2. sugar
3. oild
4. **quick lime**



Selina Publishers ICSE Solutions

Class 7 Chemistry

- Chapter 1- Matter and Its Composition
- Chapter 2- Physical and Chemical Changes
- Chapter 3- Elements, Compounds and Mixtures
- Chapter 4- Atoms, Molecules and Radicals
- Chapter 5- Language of Chemistry
- Chapter 6- Metals and Non-metals
- Chapter 7- Air and Atmosphere

<https://www.indcareer.com/schools/selina-class-7-icse-solutions-chemistry-chapter-2-physical-and-chemical-changes/>

About About Selina Publishers ICSE

Selina Publishers has been serving the students since 1976 and is one of the quality ICSE school textbooks publication houses. Mathematics and Science books for classes 6-10 form the core of our business, apart from certain English and Hindi literature as well as a few primary books. All these books are based upon the syllabus published by the Council for the I.C.S.E. Examinations, New Delhi. The textbooks are composed by a panel of subject experts and vetted by teachers practising in ICSE schools all over the country. Continuous efforts are made in complying with the standards and ensuring lucidity and clarity in content, which makes them stand tall in the industry.

<https://www.indcareer.com/schools/selina-class-7-icse-solutions-chemistry-chapter-2-physical-and-chemical-changes/>

About IndCareer

IndCareer.com is a leading developer of online career guidance resources for the Indian marketplace. Established in 2007, IndCareer.com is currently used by over thousands of institutions across India, including schools, employment agencies, libraries, colleges and universities.

IndCareer.com is designed to assist you in making the right career decision - a decision that meets your unique interests and personality.

For any clarifications or questions you can write to **info@indcareer.com**

Postal Address

IndCareer.com
52, Shilpa Nagar,
Somalwada
Nagpur - 440015
Maharashtra, India

WhatsApp: +91 9561 204 888

Website: <https://www.indcareer.com>

<https://www.indcareer.com/schools/selina-class-7-icse-solutions-chemistry-chapter-2-physical-and-chemical-changes/>