



**Lesson Question**



**Lesson Goals**

Explore the chemical  of matter.

Explain what happens during a  change.

Identify examples of chemical .

Differentiate between  and chemical changes.



**Words to Know**

Fill in this table as you work through the lesson. You may also use the glossary to help you.

<input type="text"/>	a characteristic of matter that describes its ability to change into a different substance
<input type="text"/>	a change in matter that results in a change in its identity and properties
<input type="text"/>	the ability of a substance to combine chemically with another
<input type="text"/>	the ability of a substance to burn

**Physical Properties of Matter**

- Physical properties can be observed and do not change the  of the substance.
- A physical change is a change in some of the physical  of matter but not in its identity.

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### Chemical Properties

- properties describe how matter can change into different substances.
  - To observe the chemical properties of a substance, you must try to change it to another substance.
- Examples
  - – the ability of a substance to burn
    - wood in a campfire
    - matches
  - – the ability of a substance to combine chemically with another
    - rusting

### Chemical Change

- A chemical  :
- forms new substances with  properties.
  - cannot be reversed by  changes.

# Instruction | Chemical Properties

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## Indicators of Chemical Change

- production of
- change of
- change of
- formation of
- formation of a

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## Physical Properties

- Physical properties can be  and do not change the identity of the substance.
- For example, iron:
  - is silvery .
  - is  but relatively soft.
  - has a  point at 1,538°C.
  - has a  point at 2,862°C.
  - is a good .

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**Chemical Properties**

- Chemical properties describe the ability of one substance to  into another.
- For example, iron:
  - reacts with  to form rust.
  - reacts with other elements to produce .
  - is used to produce  sparks.

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**Physical and Chemical Changes**

- In a  change, some physical properties change, but the identity does not.
- In a  change, both the properties and the identity change.

## Summary

## Chemical Properties

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**Lesson  
Question**

What happens during a chemical change?

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**Answer**

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**Review: Key Concepts**

Physical properties:

- can be observed and do not change the  of the substance.

Physical changes:

- may change some  properties of a substance but not its identity.

Chemical properties:

- describe the ability of one substance to change into .

Chemical changes:

- cause both the properties and the  of a substance to change.



# Summary

## Chemical Properties

*Use this space to write any questions or thoughts about this lesson.*