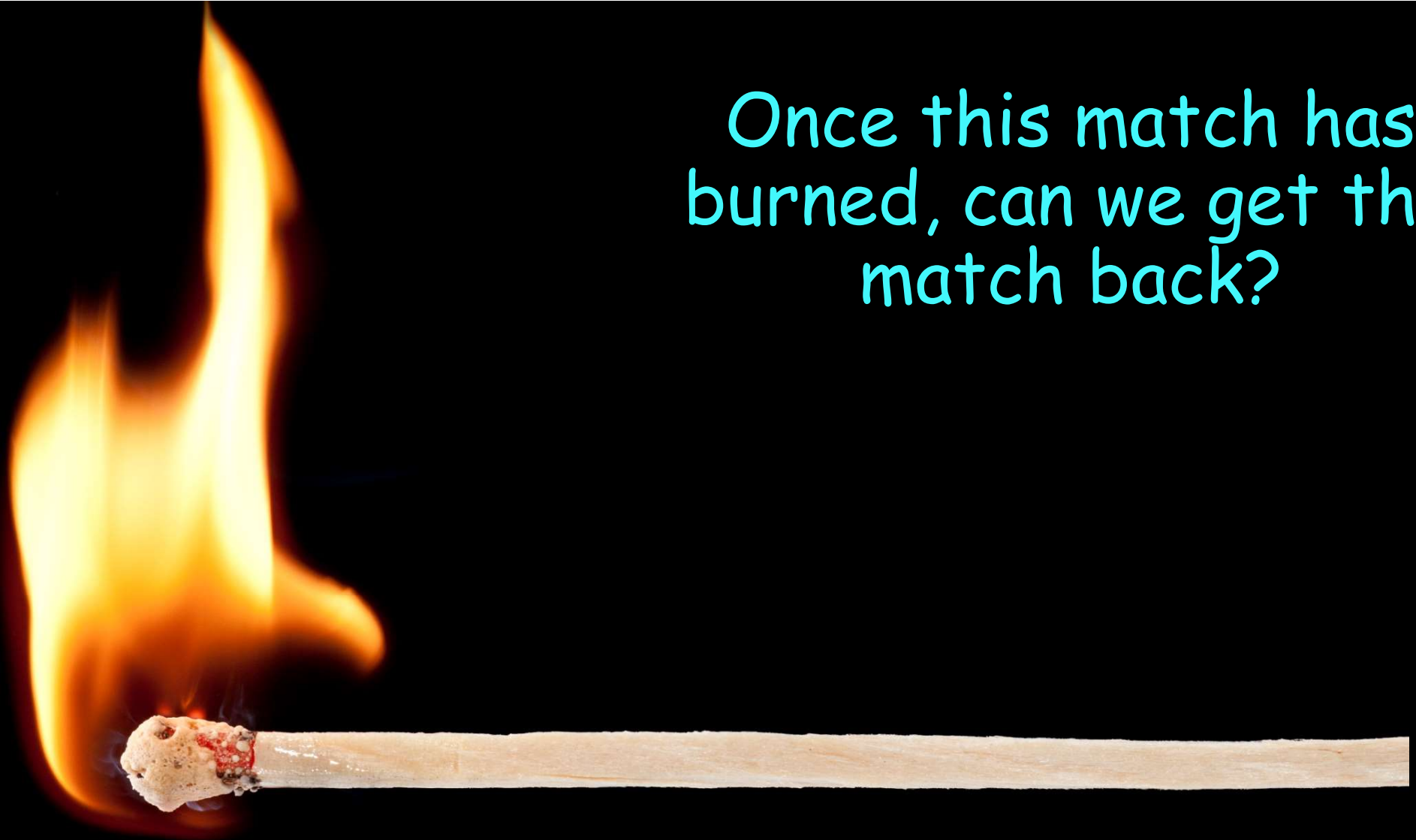


Once this match has  
burned, can we get the  
match back?



Primary national  
curriculum  
links!

To identify that dissolving, mixing and changes of state are reversible changes.

To describe examples of irreversible changes, including burning and reaction with acid.

To explain that irreversible changes result in the formation of new materials.

What do we mean by reversible  
and irreversible changes?



**Key terms:** change, reversible, irreversible, material

To identify that dissolving, mixing and changes of state are reversible changes.

To describe examples of irreversible changes, including burning and reaction with acid.

To explain that irreversible changes result in the formation of new materials.

## Reversible Changes

- Can be undone or reversed.
- You can get back the substances you started the reaction with.



## Irreversible Changes

- Cannot be changed back again.
- New materials are always formed.
- Sometimes these new materials are useful to us.



**Keywords:** Chemical reaction, physical change, reversible, reactant, product, word equation.

To identify that dissolving, mixing and changes of state are reversible changes.

To describe examples of irreversible changes, including burning and reaction with acid.

To explain that irreversible changes result in the formation of new materials.



What are examples of reversible changes?

- Dissolving
- Mixing
- Changes of state e.g. melting, freezing and evaporation



Key terms: change, reversible, irreversible, material

To identify that dissolving, mixing and changes of state are reversible changes.

To describe examples of irreversible changes, including burning and reaction with acid.

To explain that irreversible changes result in the formation of new materials.



What are examples of irreversible changes?



- Burning
- Reaction with acid
- Cooking an egg



**Key terms:** change, reversible, irreversible, material

To identify that dissolving, mixing and changes of state are reversible changes.

To describe examples of irreversible changes, including burning and reaction with acid.

To explain that irreversible changes result in the formation of new materials.

# Signs of Irreversible Changes

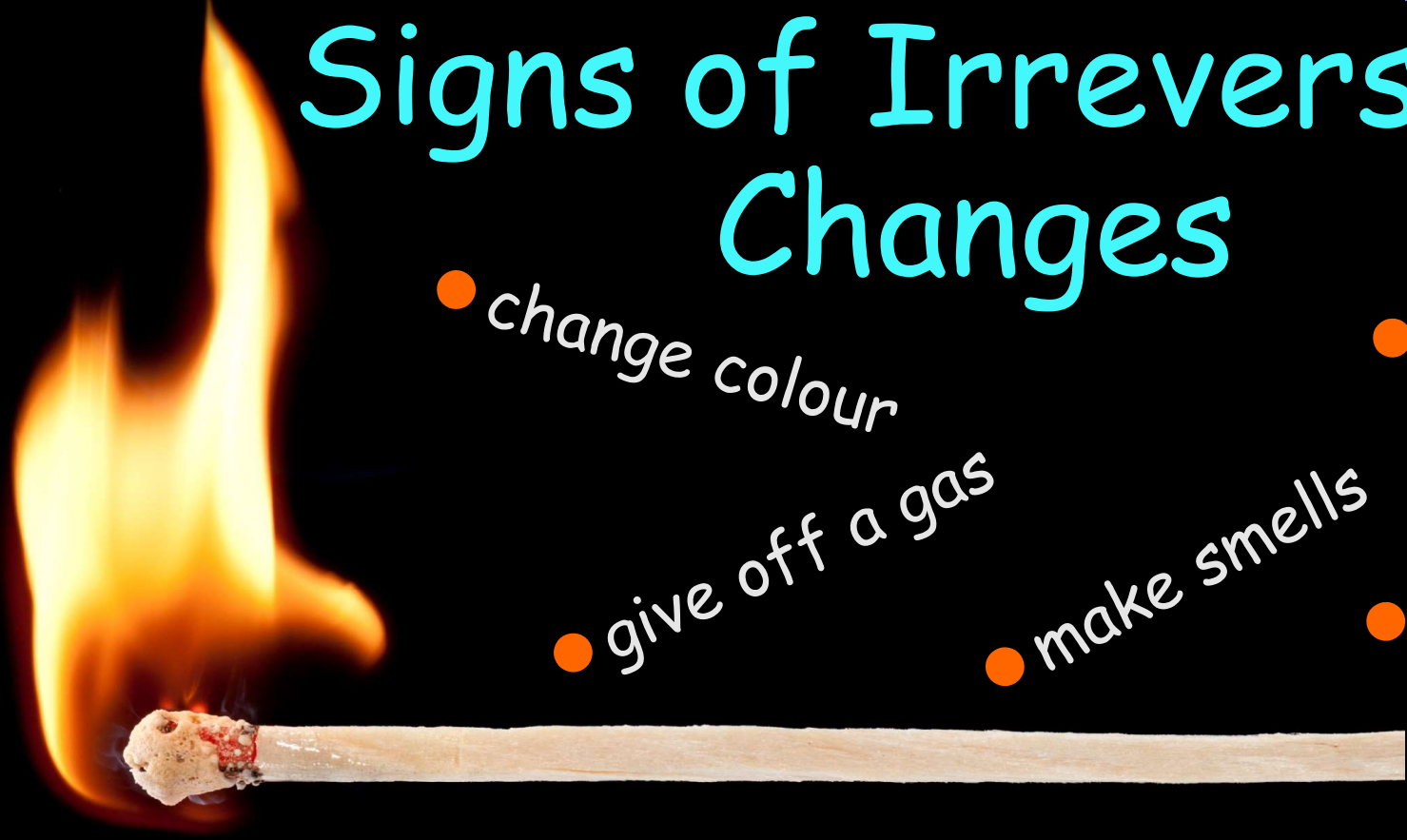
- change colour

- give off a gas

- make smells

- give out light

- get hot or cold



**Key terms:** change, reversible, irreversible, material

To identify that dissolving, mixing and changes of state are reversible changes.

To describe examples of irreversible changes, including burning and reaction with acid.

To explain that irreversible changes result in the formation of new materials.

Can you identify which of these changes are reversible and which are irreversible?

**Dissolving**  
(e.g. ... water)  
**Reversible**

**Reaction with acid**  
(e.g. adding ...)  
**Irreversible**

**Melting**  
(e.g. ...)  
**Reversible**

**Frying an Egg**  
(e.g. heating ...)  
**Irreversible**

**Burning**  
(e.g. ...)  
**Irreversible**

**Freezing**  
(e.g. ...)  
**Reversible**

**Key terms:** change, reversible, irreversible, material