

## Introduction

Quizzes are useful to change the pace or direction of lessons. This example is based on generating words from the names of elements

## Running the activity

Photocopy the question sheet or use as a quiz.

Do the activity against the clock.

If the pupils do not have reference to an element list the activity is more demanding.

## Safety

Not applicable.

## More ideas

Pupils can generate their own quizzes at the end of a topic.  
Use the quiz as a tutor time activity.

## Lesson outcomes

Develop pupil knowledge of:

- Atomic symbols

## Where the activity fits in

As a change of pace and direction to any of the KS3 topics.

As a lesson starter or finisher.

As a homework.

## Skills

Knowledge and understanding, recall, vocabulary.

## Acknowledgements

Please send your fun size quizzes to [nigel.heslop@scienceyear.com](mailto:nigel.heslop@scienceyear.com) for inclusion on future CD-ROMs.

# Periodic Table Quiz

Use your periodic table to help you solve these puzzles.  
For each answer write down the name of the element and its symbol.

1. Which metal's symbol could be a nickname for **Alan**?
2. Find the **superman** element.
3. Find a metal named after **Germany**.
4. Find two more elements named after countries.
5. The famous scientist **Albert** \_\_\_\_\_ proved  $E=mc^2$ .
6. **Dmitri Mendeleev** is the father of the periodic table. Can you find his element?
7. Which gas is used to kill germs in a **swimming pool**?

Put the symbols of these elements together to complete these messages

8. It's nice to get a **potassium iodine sulphur sulphur** on the **lithium phosphorous sulphur**.
9. Salt and vinegar are my favourite **chromium iodine sulphur phosphorous sulphur**.
10. I like to **silicon phosphorous** my tea from a **copper phosphorous**.
11. A **chromium oxygen tungsten** is a type of blackbird.
12. If you are noisy, teachers can get **chromium osmium sulphur**.
13. Jim Royle's catch phrase, "My **argon selenium**".

Make a phrase of your own using the elements.

Now you are nearly finished, which element thanks you by saying "**Ta**"?

## Introduction

This game is a revision activity to the content of primary chemistry and materials topics.

## Running the activity

There are 50 cards, two to a page, all different. Print out as many pages as you need and cut them in half to make individual cards. Give out individual cards to each pupil. The cards can be laminated and a wax pencil used to mark them.

The teacher has the sheet of key word definitions. Mark or tick off the questions asked during each session. You may wish to substitute definitions targeted at your pupils. The definitions are read out and pupils have to recognise and cross off the key word on their card. The first pupil to cross off all the words on their card receives a small prize. Check the winning card with the class to focus on the words used in the activity. Pupils can write out any definitions they do not recognise.

For a blank file contact [nigel.heslop@scienceyear.com](mailto:nigel.heslop@scienceyear.com)

## Safety

Not applicable.

## More ideas

The questions can be used as the basis of a quiz. Key words could be displayed beside the teaching station. Sticky Velcro patches make a good support for the word display. There should only be a few key words to focus attention on the target vocabulary for that session.

## Learning outcomes

Review pupil knowledge of:

- Changes of state
- Dissolving
- Solvents
- Gases
- Irreversible changes

## Where the activity fits in

Revising and consolidating.  
QCA SoW 5C, 5D, 6C and 6D.

## Skills

Vocabulary, recall skills.

✓ Tick these off when used in the session

The solid that dissolves in a liquid:	Solute
The liquid that does the dissolving:	Solvent
The mixture of dissolved solid and liquid:	Solution
A material that has a fixed shape:	Solid
A material that has a fixed volume but not a fixed shape:	Liquid
A material that does not have a fixed volume or shape:	Gas
When a solid disappears into a liquid:	Dissolving
Two or more different materials together:	Mixture
To make jelly dissolve more quickly you make the water..	Hotter
Method used to separate small pieces of solid from a liquid:	Filtration
When a liquid become a gas:	Evaporation
When a gas becomes a liquid:	Condensation
The temperature that a liquid becomes a gas:	Boiling point
When a solid becomes a liquid:	Melting
Freezing point of water:	0°C
Boiling point of water:	100°C
To make jelly dissolve more quickly you make it into ...:	Smaller pieces
When salt water boils away the salt is ...:	Left behind
A material that contains only one type of particle:	Pure
When pancake mix is heated it goes solid. This change is ...:	Irreversible

### Starting Particles Bingo Card

<b>Solute</b>	<b>Solvent</b>	<b>Solution</b>		
<b>Gas</b>		<b>Mixture</b>		<b>Filtration</b>
<b>Evaporation</b>	<b>Condensation</b>		<b>Melting</b>	
<b>100°C</b>			<b>Pure</b>	<b>Irreversible</b>

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## Introduction

This game is a revision activity to a lesson or series of lessons on states of matter.

## Running the activity

Give each pupil three small pieces of coloured card about 10 cm square (one red, one yellow or orange, one green). These are used to signal their answers.

Red means SOLID.

Yellow or orange means LIQUID

Green means GAS.

The activity begins with straightforward examples, but then goes onto some materials that are much harder to classify. Pupils may need extra cards or to answer in pairs, as some of the examples are mixtures of two states.

The game follows this sequence:

- Read the question.
- Allow a short period of time for pupils to consider their answer.
- Count "1,2,3 Show your cards!"
- Pupils all hold up one of their card at the same time.

## Safety

Not applicable.

## More ideas

Use the red, yellow and orange cards to denote true, false and don't know / can't know for a series of questions

## Learning outcomes

- Revising and consolidating states of matter.

## Where the activity fits in

KS2 QCA SoW 4D and 5D  
KS3 QCA SoW 7G

## Skills

Recall.

1. Rock  
Solid
2. Water  
Liquid
3. Air  
Gas
4. Oxygen  
Gas
5. Ice  
Solid
6. Helium  
Gas
7. Sand  
Solid
8. Cement  
Solid
9. Carbon dioxide  
Gas
10. Petrol  
Liquid
11. Cooking oil  
Liquid
12. Rubber  
Solid
13. Jelly  
Liquid in a solid lattice
14. Cream  
Two liquids in an emulsion, they can separate when the cream turns to butter.

15. Whipped cream  
Gas in a liquid
16. Clouds  
Liquid suspended in a gas
17. Toothpaste  
Solid in a liquid
18. Paint  
Solid in a liquid if school paint  
Emulsion paints are two liquids, one watery one oily
19. Vaseline  
Liquid , but a thick liquid
20. Sponge cake  
Gas in an elastic solid
21. Meringue  
Gas in a hard solid
22. Cloth  
Solid
23. Bonfire Smoke  
Solid particles (soot) and liquid droplets (tar) suspended in a gas