

# The Periodic Table

Developed by Mike Roy at Morpeth School in LB of Tower Hamlets

The webaddress for this activity is:

<http://www.collaborativelearning.org/periodictable.pdf>

## COLLABORATIVE LEARNING PROJECT

Project Director: Stuart Scott

Supporting a cooperative network of teaching professionals throughout the European Union to develop and disseminate accessible interactive teaching materials in all subject areas and for all ages.

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## BRIEF SUMMARY OF BASIC PRINCIPLES BEHIND OUR TEACHING ACTIVITIES:

The project is a teacher network, and a non-profit making educational trust. Our main aim is to develop and disseminate classroom tested examples of effective group strategies that promote talk across all phases and subjects. We hope they will inspire you to develop and use similar strategies in other topics and curriculum areas. We want to encourage you to change them and adapt them to your classroom and students. We run teacher workshops, swapshops and conferences throughout the European Union. The project posts online many activities in all subject areas. An online newsletter 'PAPERCLIP' is also updated regularly.

\*These activities were influenced by current thinking about the role of language in learning. They are designed to help children learn through talk and active learning in small groups. They work best in non selective classes where children in need of language or learning support are integrated. They are well suited for the development of speaking and listening. They provide teachers opportunities for assessment of speaking and listening and other formative assessment.

\*They support differentiation by placing a high value on what children can offer to each other on a particular topic, and also give children the chance to respect each other's views and formulate shared opinions which they can disseminate to peers. By helping them to take ideas and abstract concepts, discuss, paraphrase and move them about physically, they help to develop thinking skills.

\*They give children the opportunity to participate in their own words and language in their own time without pressure. Many activities can be tried out in mother tongue and afterwards in English. A growing number of activities are available in more than one language, not translated, but mixed, so that you may need more than one language to complete the activity.

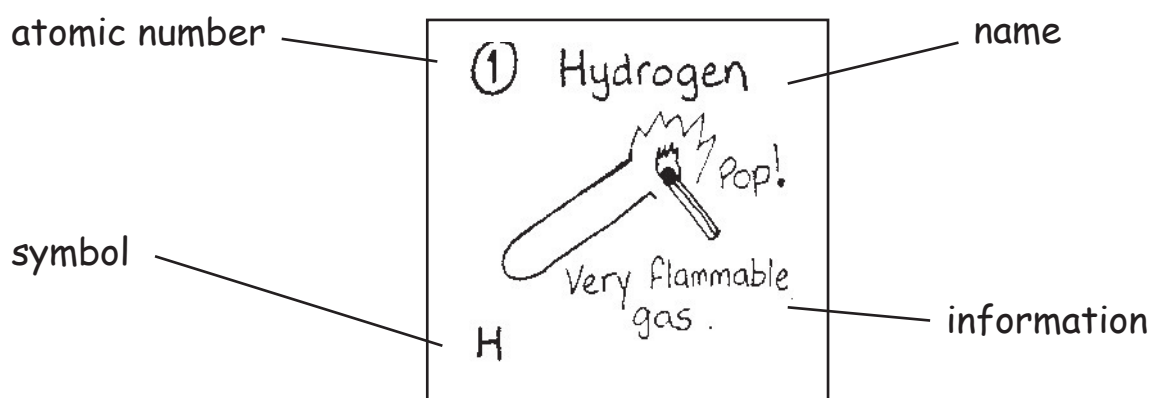
\*They encourage study skills in context, and should therefore be used with a range of appropriate information books which are preferably within reach in the classroom.

\*They are generally adaptable over a wide age range because children can bring their own knowledge to an activity and refer to books at an appropriate level. The activities work like catalysts.

\*All project activities were planned and developed by teachers working together, and the main reason they are disseminated is to encourage teachers to work effectively with each other inside and outside the classroom. They have made it possible for mainstream and language and learning support teachers to share an equal role in curriculum delivery. They should be adapted to local conditions. In order to help us keep pace with curriculum changes, please send any new or revised activities back to the project, so that we can add them to our lists of materials.

# The Periodic Table

You have 24 cards with the names with **names** of different elements on them. The symbol for the element is given on the card e.g. "H" for hydrogen. The atomic number for that element is given as well as some information about it.



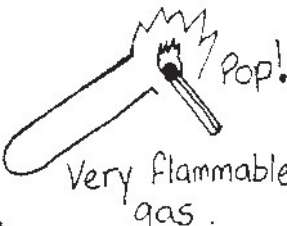

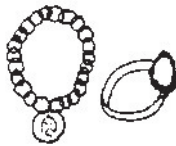
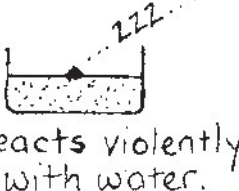

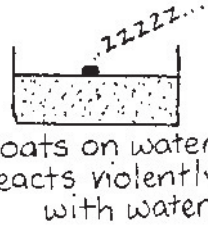


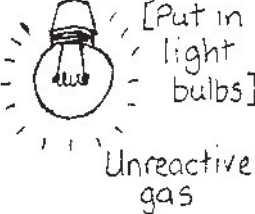
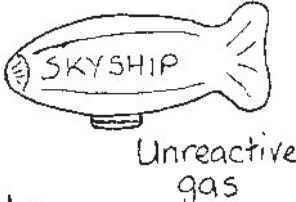
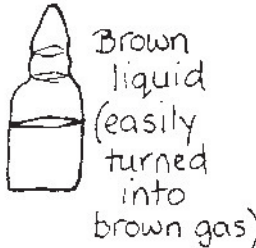
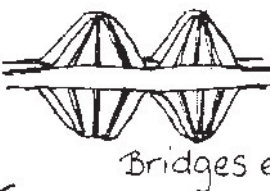


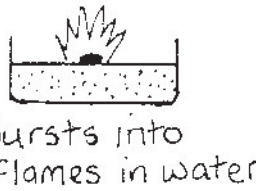

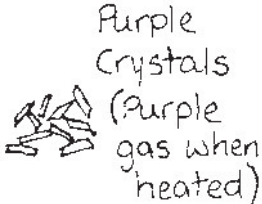
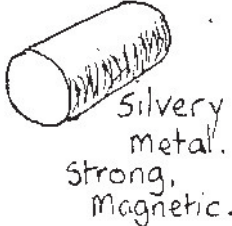
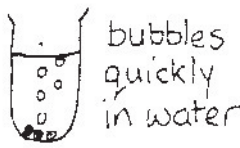

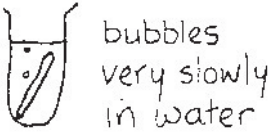
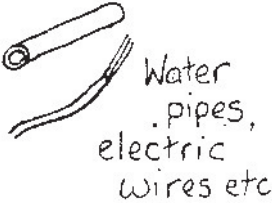


1. Try to sort out the 24 elements into groups of similar elements. You may find you have many different groups. You may not be sure where to put a particular element.



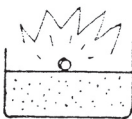
2. You will receive a copy of the Periodic Table. You will need to assemble it. There are some spaces marked with an "X", there are some elements written down and there are a lot of empty spaces.

Your 24 small cards fit on the squares marked with an "X". Try to sort out which cards go where. Use the information on the table and the information on the element cards to help you


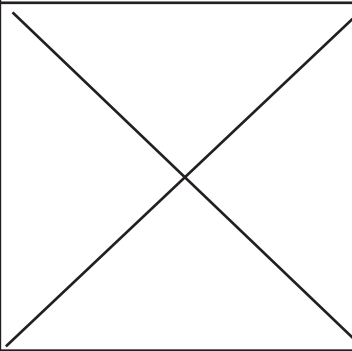
3. Ask your teacher to check your table. Then look at the squares marked A, B, C, D and E. Try to predict what each of these elements would be like. Write down your ideas.


# Periodic Table cards

<p>① Hydrogen</p>  <p>H</p>	<p>⑧ Oxygen</p>  <p>O</p>	<p>⑦9 Gold</p>  <p>Au</p>	<p>③ Lithium</p>  <p>Li</p>
<p>⑦8 Platinum</p>  <p>Pt</p>	<p>⑪ Sodium</p>  <p>Na</p>	<p>⑥ Carbon</p>  <p>C</p>	<p>⑪7 Chlorine</p>  <p>Cl</p>
<p>⑮ Argon</p>  <p>Ar</p>	<p>② Helium</p>  <p>He</p>	<p>③5 Bromine</p>  <p>Br</p>	<p>②6 Iron</p>  <p>Fe</p>
<p>④7 Silver</p>  <p>Ag</p>	<p>⑨ Fluorine</p>  <p>F</p>	<p>⑮9 Potassium</p>  <p>K</p>	<p>⑮6 Sulphur</p>  <p>S</p>
<p>⑤3 Iodine</p>  <p>I</p>	<p>②7 Cobalt</p>  <p>Co</p>	<p>②0 Calcium</p>  <p>Ca</p>	<p>③0 Zinc</p>  <p>Zn</p>
<p>⑮2 Magnesium</p>  <p>Mg</p>	<p>②9 Copper</p>  <p>Cu</p>	<p>⑩ Neon</p>  <p>Ne</p>	<p>②8 Nickel</p>  <p>Ni</p>


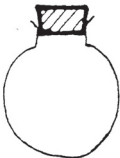

	<p>④ Beryllium</p>  <p>Silvery metal (Used to make some alloys)</p> <p>Be</p>		
			<p>②② Titanium</p>  <p>Very light, strong metal (Used to build some aircraft and jewellery!)</p> <p>Ti</p>
<p>③⑦ Rubidium</p>  <p>Bang!</p> <p>Explodes when put in water</p> <p>Rb</p>			
<p>A ?</p>			

# Sheet B


<p>B ?</p>	<p>(24) Chromium</p>  <p>Silvery, hard metal (Used to make taps, car bumpers etc.)</p> <p>Cr</p>		

			<div>80 Mercury</div> <div></div> <div>expensive metal (used in thermometers)</div> <div>Hg</div>

# Sheet D

<p>⑤ Boron</p>  <p>B dark solid</p>		<p>⑦ Nitrogen</p>  <p>N Colourless, unreactive gas</p>	
<p>⑬ Aluminium</p>  <p>Al Light, silvery metal (Used in aircraft, cans, foil etc.)</p>			
			E ?

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	<p>36 Krypton</p>  <p>[Used in some electronic valves]</p> <p>Kr Unreactive gas</p>
	C ?
D ?	