



SWFS

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Teachers' notes.

These worksheets have been written by serving teachers and Fire Service personnel. The intention is that they are simple and attractive to use – child friendly. Behind every worksheet lies the same life saving message:

GET OUT - STAY OUT - CALL US OUT.

The worksheets have all been referenced to the Curriculum 2000. To save printing costs at schools, each sheet can be printed from the PC and photocopied either in colour or black and white.

The e-mail addresses mentioned on certain pages are live. Please encourage your children to use them – we want to hear from your school! This is also part of the Curriculum 2000, certainly covering communication skills in ICT!

To find the worksheet you need, simply click on the button at the end of each title. You will be taken straight there.

By using these worksheets alongside the web site, the Fire Service hopes that you, as a teacher, will have extension activities for your children. Through this cross -curricular use of ICT we intend that children become more aware of fire safety issues.



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Clothing / Equipment - Properties of materials



Some properties of materials

- | | |
|-----------------------------|-------------------------|
| Hard | Water- resistant |
| Strong | Flexible |
| Magnetic conductor | Electrical |
| Electrical insulator | Heat insulator |
| Heat conductor | Lightweight |
| Magnetic | Rigid |
| Transparent | Opaque |

(Complete the table below.
 Remember that materials may have more than one significant property).

Clothing/Equipment	Material	Property / Properties
Helmet	Polycarbonate	
Gloves	Leather	
Boots	Rubber	
Hose	Rubber	Flexible,
Ladder	Aluminium	
Axe handle	Wood	
Axe head	Steel	
Fire engine	Steel	
Helmet visor	Polycarbonate	

Name..... Date..... Year.....



Close that door - Thermal Insulation



Open doors will let smoke
and flame through if there is a fire so:

Close that door at night!
A wooden door is a thermal insulator.

" Many lives have been saved by closed doors,
" says fire fighter Colin Jones.

What material is your bedroom door made from?

What material is the handle made from?

Which of these two materials will **conduct** heat the best?

Re-write these sentences in the right order:

(The 'Get Out' Web Page will help you)

- If my smoke detector goes off at night,
 - If the handle was cool.
 - I would go to the bedroom door.
- If I thought it was safe I would crawl to wake everyone else up.
 - I would touch the handle with the back of my hand.
 - I would stay low under the smoke and open the door slightly.

Name.....

Date.....

Year.....



Chip-pan Saucepans



- Are handles made from**
- Cork
 - Wood
 - Steel
 - Concrete?
- Are bases made from**
- Plastic
 - Copper
 - Steel
 - Rubber?

Look at the saucepans in a home shopping catalogue. Make a list of materials that are used to make the bases of saucepans. Make a list of materials used to make the handles of saucepans.

Saucepan bases are made from: 1.
 2.

Saucepan bases have to be good or bad conductors of heat? Why?

Which material do you think is the best conductor of heat?

Saucepan handles are made from: 1.
 2.

Saucepan handles have to be good or bad conductors of heat? Why?

Poor conductors of heat are good



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Changing materials



Burning causes changes that cannot be reversed. They are called irreversible changes. Complete the list of irreversible changes.

Burning cigarette	
Ignited match	

Name.....

Date.....

Year.....



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Rescue.



(An extract from the Merthyr Guardian)
March 10 1838 Merthyr
Guardian

A young work-maid was found in the kitchen of the Butcher's Arms, Merthyr. Her dress had caught fire from a candle on the floor and in a few minutes she was enveloped in flames. Her husband, the landlord, had to remove her dress while it was still alight. His wife suffered severe burns but is still alive.

Read the above article carefully. What should her husband have done to put out the fire? (Look at the Web Page 'Rescue' to help you).

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Name..... Date..... Year.....



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Science Quiz - Materials

What do you call materials that do not let heat pass through them?

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Name two materials that are thermal conductors.

.....

Why do you think bedroom doors are usually made of wood?

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What do you call materials that let electricity pass through them?

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Name two materials that are good electrical insulators.

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Is copper a good conductor or insulator of electricity?

.....

Should your winter coat be a thermal insulator or a thermal conductor?

.....

Would the plastic covering of your toaster cable be an electrical conductor or an electrical insulator?

.....

Is copper an electrical insulator?

.....

Name one material that is a solid.

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Name one material that is a gas.

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Explain what is meant by 'reversible change of state'.

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Name.....

Date.....

Year.....