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## Chemicals in the home assignment

### Part 1

Make a list of 15 chemicals that occur in your home. Fill in the table below. You cannot use any of the chemicals listed in the measure.

	Name	Where found
1	Gasoline	Garage
2	Iron	Milo
3	Carbon Dioxide	Air
4	Calcium	Milk
5	Sodium	Ovaltine
6	Antioxidant	Ice Lemon Tea
7	Glucosamine Hydrochloride	Glucosamine Capsules
8	Monosodium Glutamate	Chicken Soup
9	Stabiliser	Coconut Cream
10	Methyl Hydroxybenzoate	Toothpaste
11	Bromhexine Hydrochloride	Cough Medicine
12	Dichlorobenzyl Alcohol	Cough Lolly
13	Food Acid	Apple Juice
14	Gelatine	Jelly Powder
15	Oxygen	Air

## Chemicals in the home assignment

### *Part 2 – Research on Chemicals*

From your list, choose four chemicals to research.

Try to include one element, one mixture, two compounds.

For each chemical chosen, fill out the table below.

#### ELEMENT

Name	Oxygen
Symbol	O <sub>2</sub>
Is it hazardous? How do you know?	Oxygen is not hazardous.
What precautions do you need to take to be safe with this chemical?	We need to be careful because oxygen can burn easily.
What are the uses of this chemical?	Oxygen is used by all living things including humans to breathe.
What special features does this chemical have that make it useful?	Oxygen is useful because is used by plants and animals for respiration.

## MIXTURE

Name	Gasoline
Ingredients	Lead, Methylcyclopentadienyl Manganese Tricarbonyl, Ethanol, Dye, Oxygenate Blending
Is it hazardous? How do you know?	Gasoline is hazardous because if gasoline is lit it will catch fire and if it enters the drinking supply it will contaminate the water.
What precautions do you need to take to be safe with this chemical?	Measures need to be put into ensuring that gasoline is stored in a safe manner and is prevented from entering flammable area and water supplies.
What are the uses of this chemical?	Gasoline is used as a major fuel source for vehicles, especially in cars. Gasoline is commonly known as petrol.
What special features does this chemical have that make it useful?	Gasoline can be involved in fuel stability and be used to make 'stale fuel'.

## Compound 1

Chemical Formula	Carbon Dioxide (Co2)
What elements does it contain?	Two oxygen atoms and one carbon atom.
Is it hazardous? How do you know?	Carbon dioxide is hazardous when concentrated to 6% and above. The effects of carbon dioxide can lead to difficulty in breathing.
What precautions do you need to take to be safe with this chemical?	Carbon dioxide can be bad for the environment. We need to keep the production of carbon dioxide to a minimum.
What are the uses of this chemical?	Carbon dioxide is used in some fire extinguishers and also used cooling insulators in the transportation of goods.
What special features does this chemical have that make it useful?	Carbon dioxide constitutes 0.003 in the Earth's atmosphere. It is consumed by plants to produce carbohydrates.

## Compound 2

Chemical Formula	Hydrogen Gas
What elements does it contain?	Hydrogen and Gas
Is it hazardous? How do you know?	It is hazardous because hydrogen and gas are both flammable.
What precautions do you need to take to be safe with this chemical?	We need to be sure that hydrogen gas is kept away from flames and strong heat.
What are the uses of this chemical?	Hydrogen is used to make balloons fly and used as an air source in hydrogen aircraft.
What special features does this chemical have that make it useful?	Hydrogen has a special feature that makes it lift up and float enclosed objects.

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