

12.1 Alcohol

- a) A **drug** is a substance which alters the way the body works.
- b) Drugs can **damage health** because of the way they can affect the body and lifestyle.
- c) **Alcohol** is a drug which can have many harmful effects on the body
- if taken in excess can be very damaging to body
 - liver and the brain are damaged by excess alcohol
- d) **Different alcoholic drinks** contain different amounts of alcohol

Drink	Units of Alcohol
pint of beer	2 units of alcohol
alcopop	2 units of alcohol
pub measure of spirits	1 unit of alcohol
glass of wine	1 unit of alcohol

- e) Alcohol is **broken down** by the body at about **1 unit per hour**.
- f) Alcoholic drinks can be made by the **fermentation of carbohydrates** like starch and sugars, found in fruits and vegetables.
- g) The **type of alcohol** varies with the plant source of the carbohydrate.

Type of Drink	Plant Source
Wine	grapes
Cider	apples
Beer	barley
Whisky	barley

- h) **Fermentation** is the process where alcohol is made:
- process is catalysed by enzymes present in **yeast**.
 - alcohol produced by fermentation is called **ethanol**.



- i) **Distillation** is a method of increasing the alcohol concentration of fermentation products for **Spirit Drinks**:

Alcoholic Drink	% Alcohol
wine	11%
beer	5%
cider	8%

Spirit Drink	% Alcohol
rum	45%
whisky	40%
vodka	40%

- j) Water and alcohols can be partially separated by **distillation**
- Water and alcohol have different boiling points
 - Lower boiling point liquid boils off first (alcohol boils first)



12.2 Other Drugs

a) **Drugs** can be legal or illegal:

Legal Drugs	Illegal Drugs
medicines	cannabis
alcohol	LSD
nicotine	ecstasy
caffeine	cocaine
aspirin	heroin

b) Being unable to manage without a drug is called **addiction**.

- people with addictions are called addicts

c) **Methanol** is very toxic

- methanol causes blindness and death
- methanol is a different kind of alcohol

d) **Methylated spirits** contains methanol

- methylated spirits is often called meths
- coloured dye added to it to prevent people from drinking it.
- bad tasting substance added to prevent drinking of meths

e) Chemical reactions are going on all the time to keep the body working properly.

- medicines contain drugs which help the body when it is not working correctly
- medicines are usually made up of many different chemicals and only the **active ingredient** works on the body.

f) Drugs like **antibiotics** can fight micro-organisms which interfere with the chemical reactions of the body

- Antibiotics help the body overcome throat infections