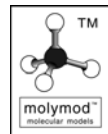


Adenine

A DNA base

What you will need:

- 5 C Carbon
- 2 N Nitrogen dark blue
- 3 N Nitrogen light blue
- 5 H Hydrogen (White)
- 7 — short grey single bonds
- 8 == long grey double bonds



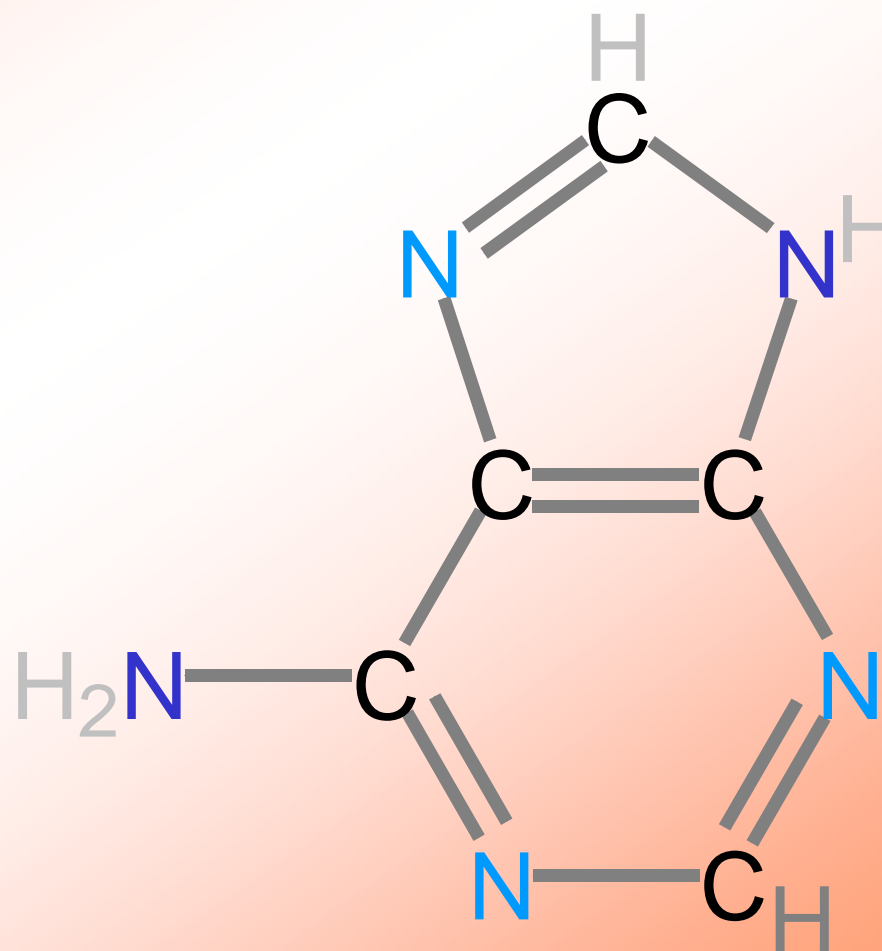
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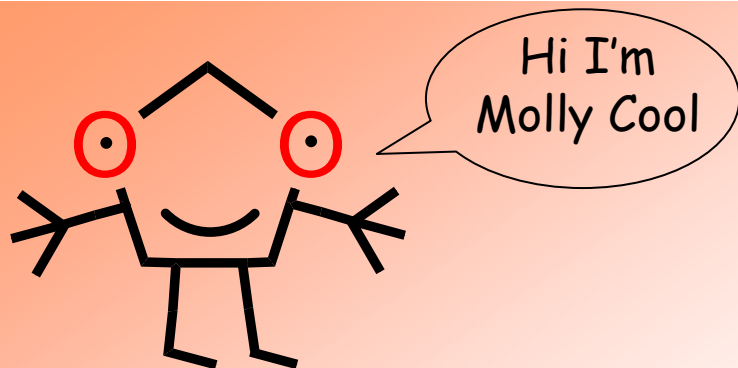
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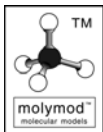


Cytosine

A DNA base

What you will need:

- | | | |
|---|----|-------------------------|
| 4 | C | Carbon |
| 2 | N | Nitrogen dark blue |
| 1 | N | Nitrogen light blue |
| 1 | O | Oxygen |
| 5 | H | Hydrogen (White) |
| 5 | — | short grey single bonds |
| 6 | == | long grey double bonds |

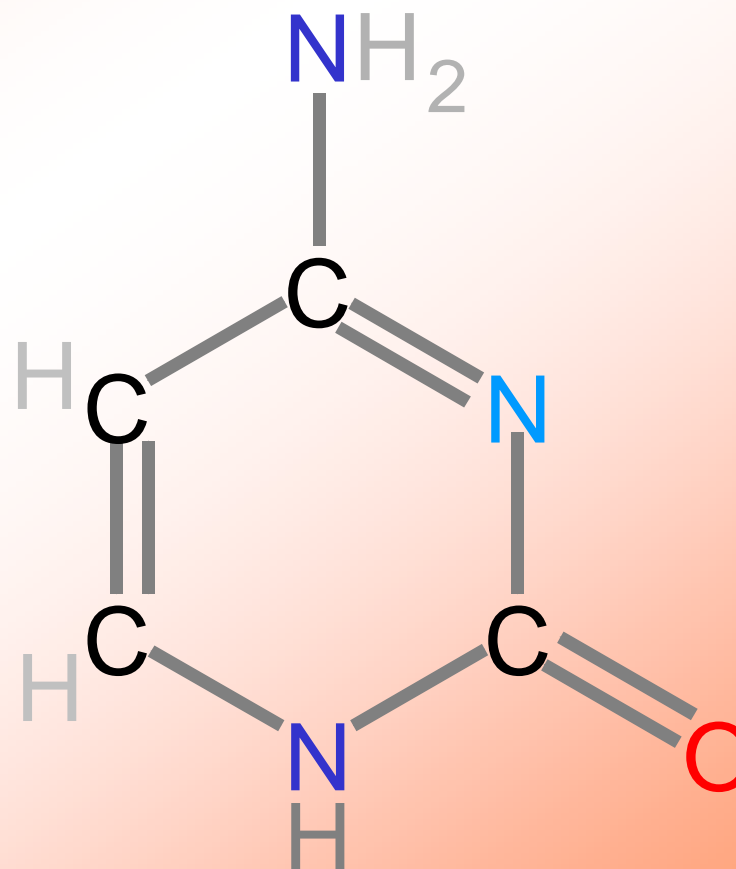


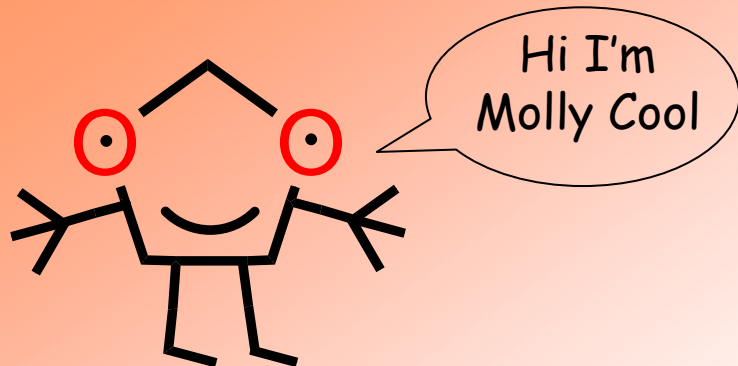
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Deoxyribose & Phosphate

The backbone of DNA

What you will need:

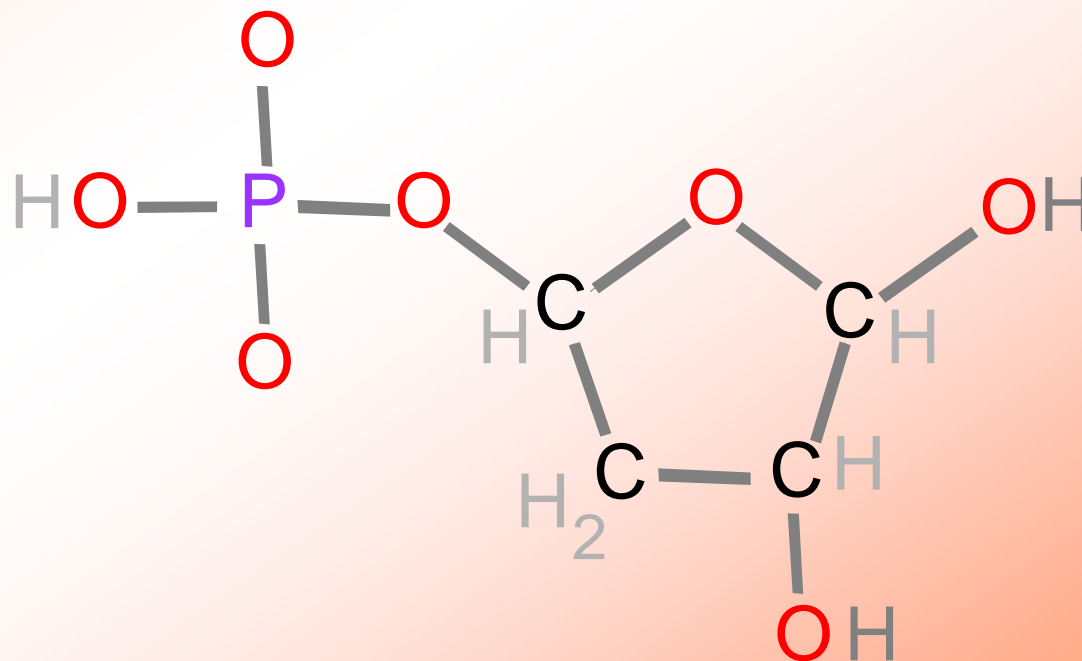
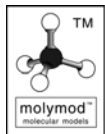
4 C Carbon

7 O Oxygen

1 P Phosphorous

8 H Hydrogen (White)

12 — short grey single bonds

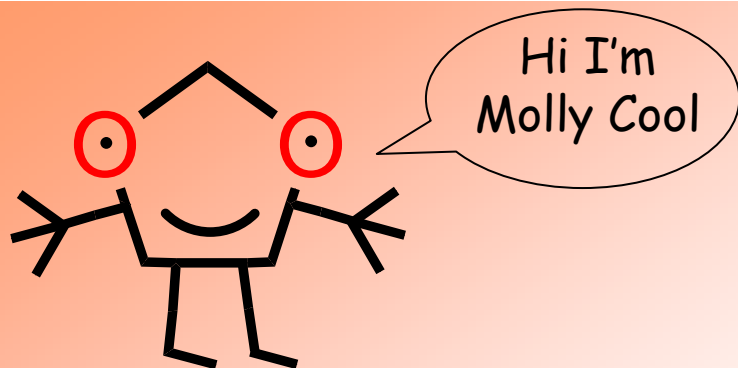


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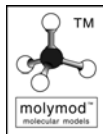
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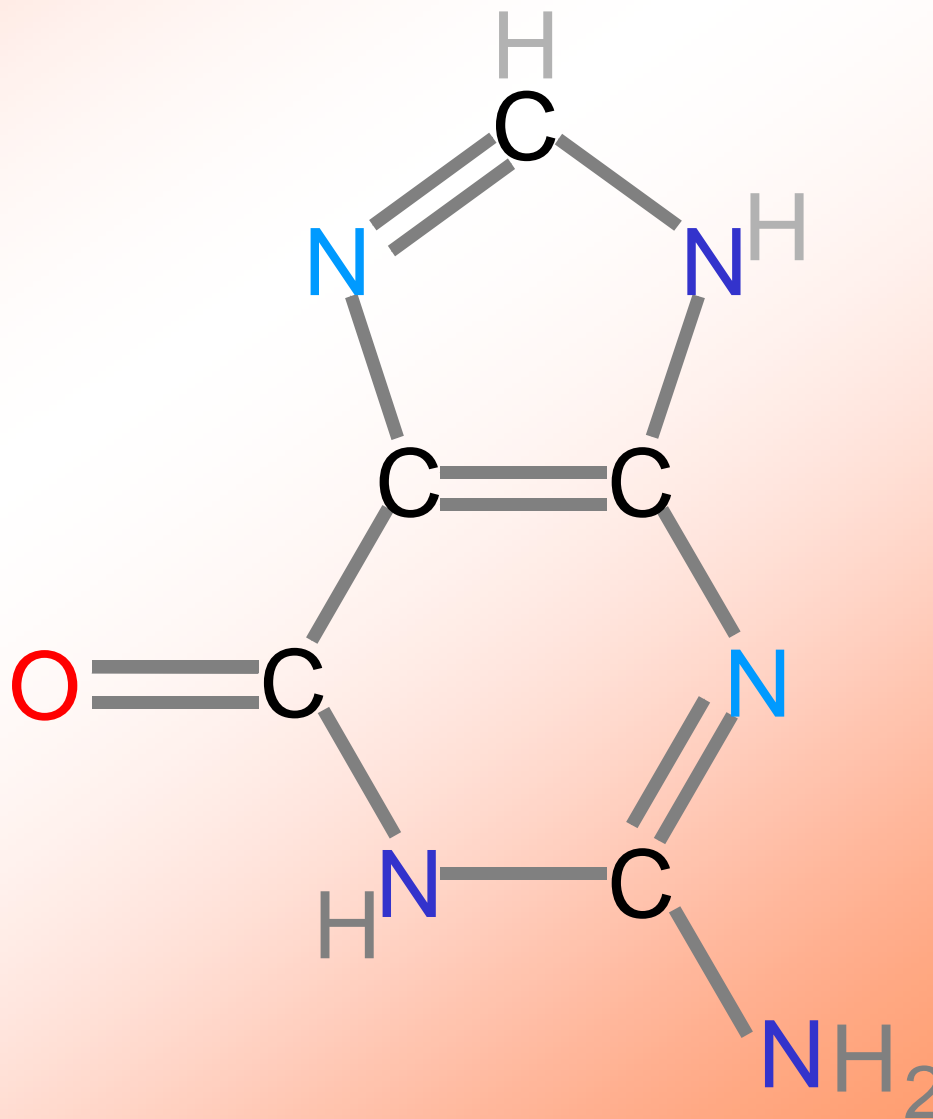
What you will need:

- 5 C Carbon
- 3 N Nitrogen dark blue
- 2 N Nitrogen light blue
- 1 O Oxygen
- 5 H Hydrogen (White)
- 8 — short grey single bonds
- 8 == long grey double bonds



Guanine

A DNA base



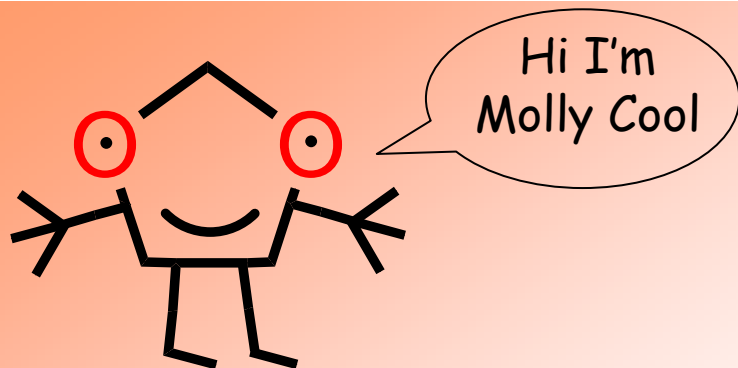
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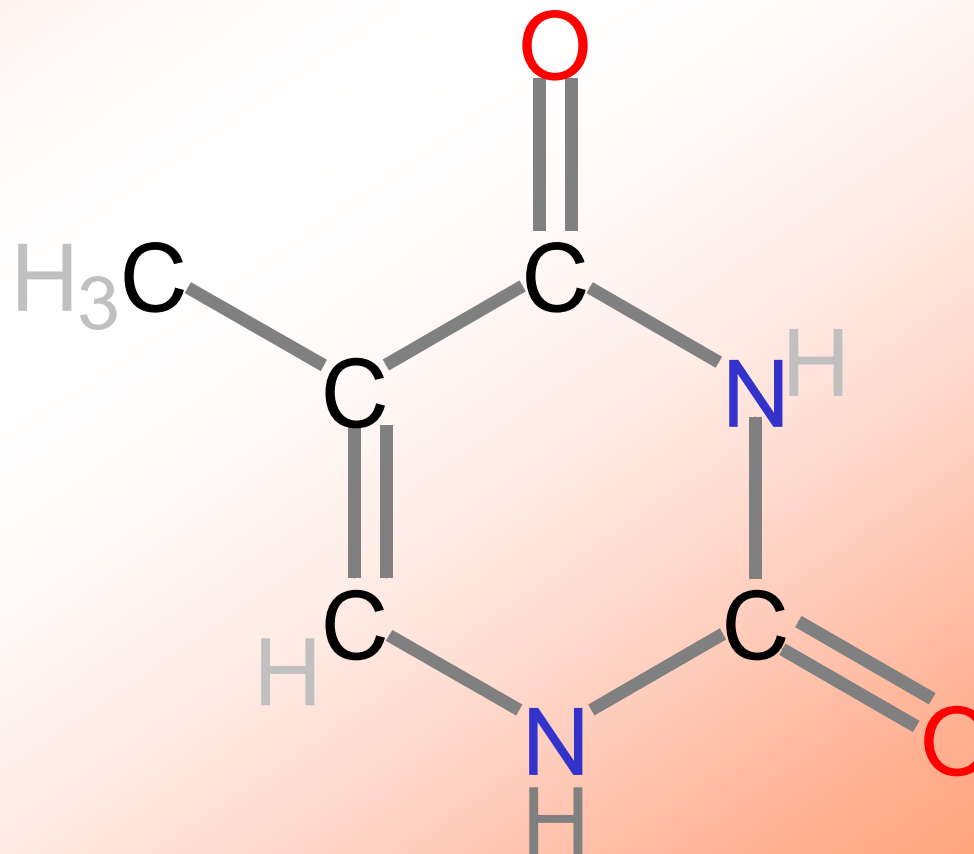
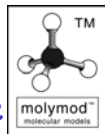


Thymine

A DNA base

What you will need:

- 5 C Carbon
- 2 N Nitrogen dark blue
- 2 O Oxygen
- 6 H Hydrogen (White)
- 6 — short grey single bonds
- 6 == long grey double bonds

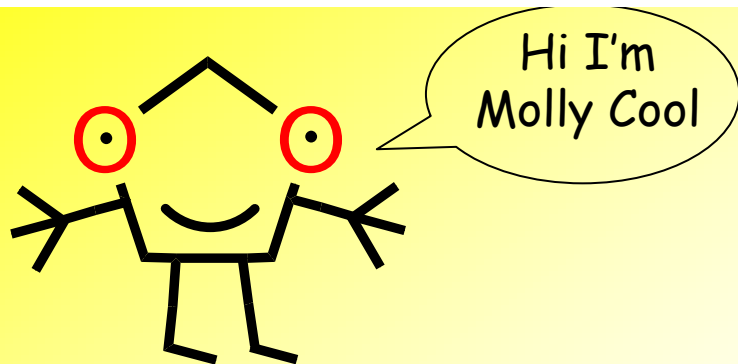


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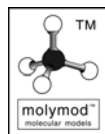
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What you will need:

- 5 C Carbon
- 3 N Nitrogen dark blue
- 2 N Nitrogen light blue
- 1 S Sulphur
- 5 H Hydrogen (White)
- 8 — short grey single bonds
- 8 == long grey double bonds



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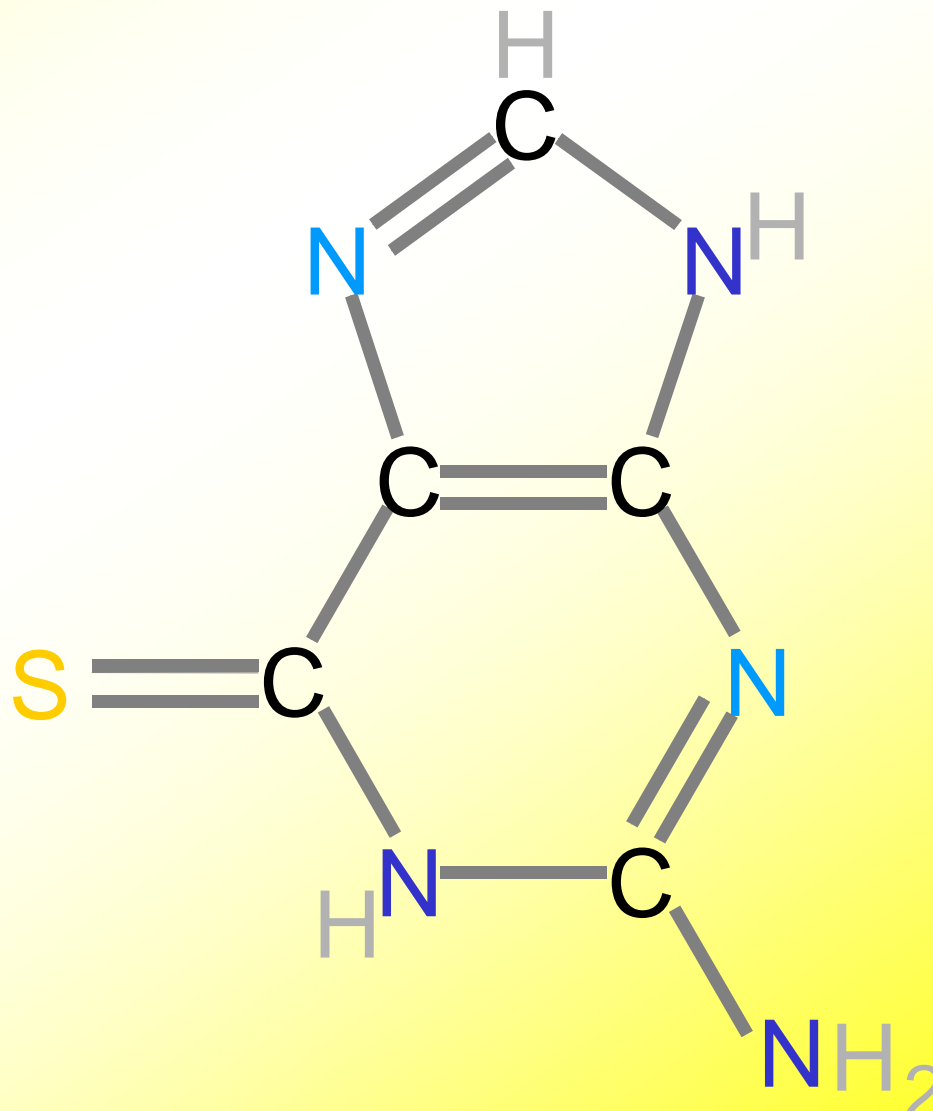
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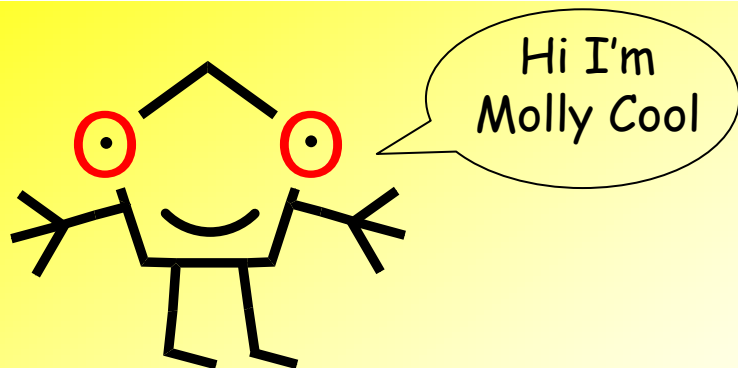
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Thioguanine

An antitumor agent related to the
DNA base Guanine



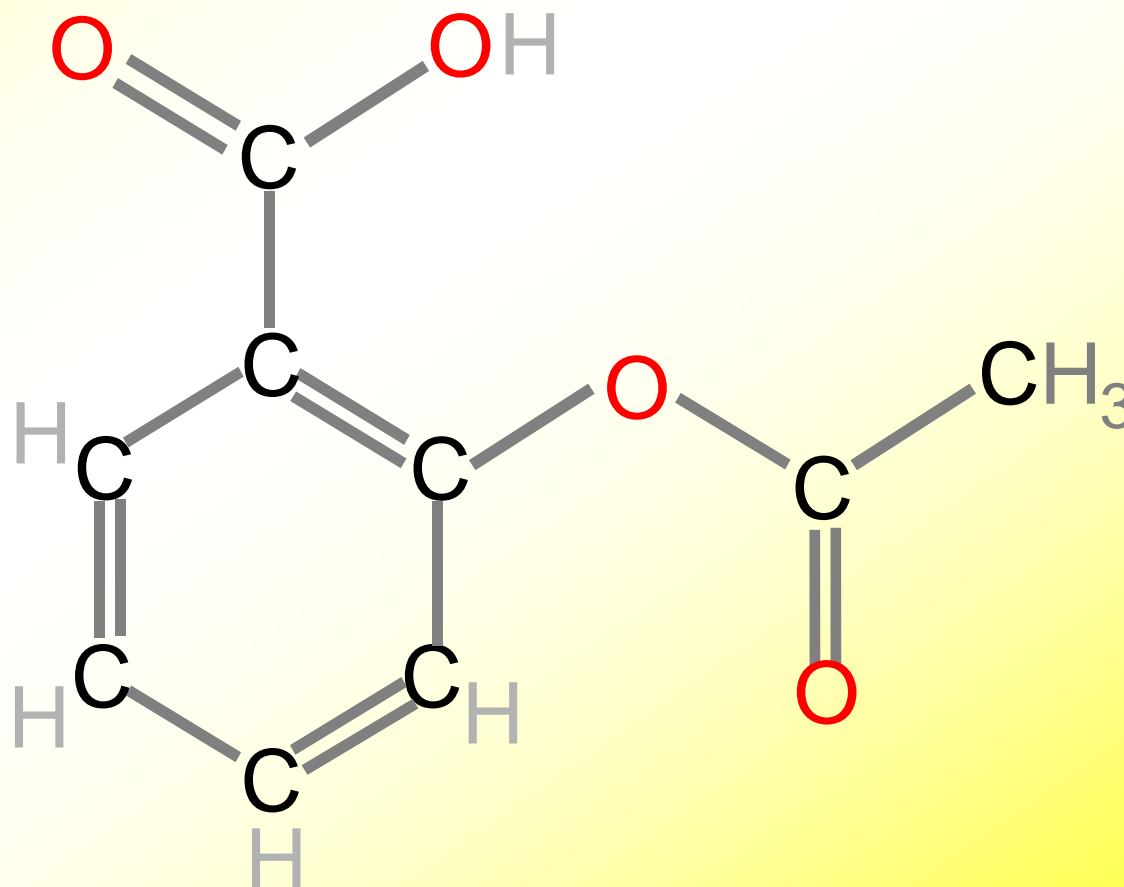
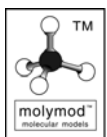


Aspirin

A common pain killer

What you will need:

- | | | |
|----|----|-------------------------|
| 9 | C | Carbon |
| 4 | O | Oxygen |
| 8 | H | Hydrogen (White) |
| 8 | — | short grey single bonds |
| 10 | == | long grey double bonds |

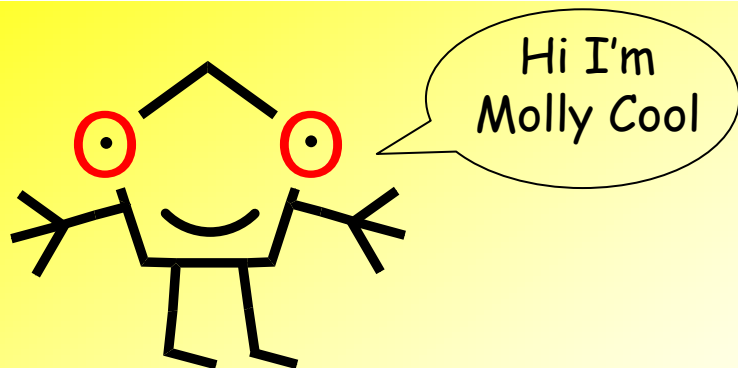


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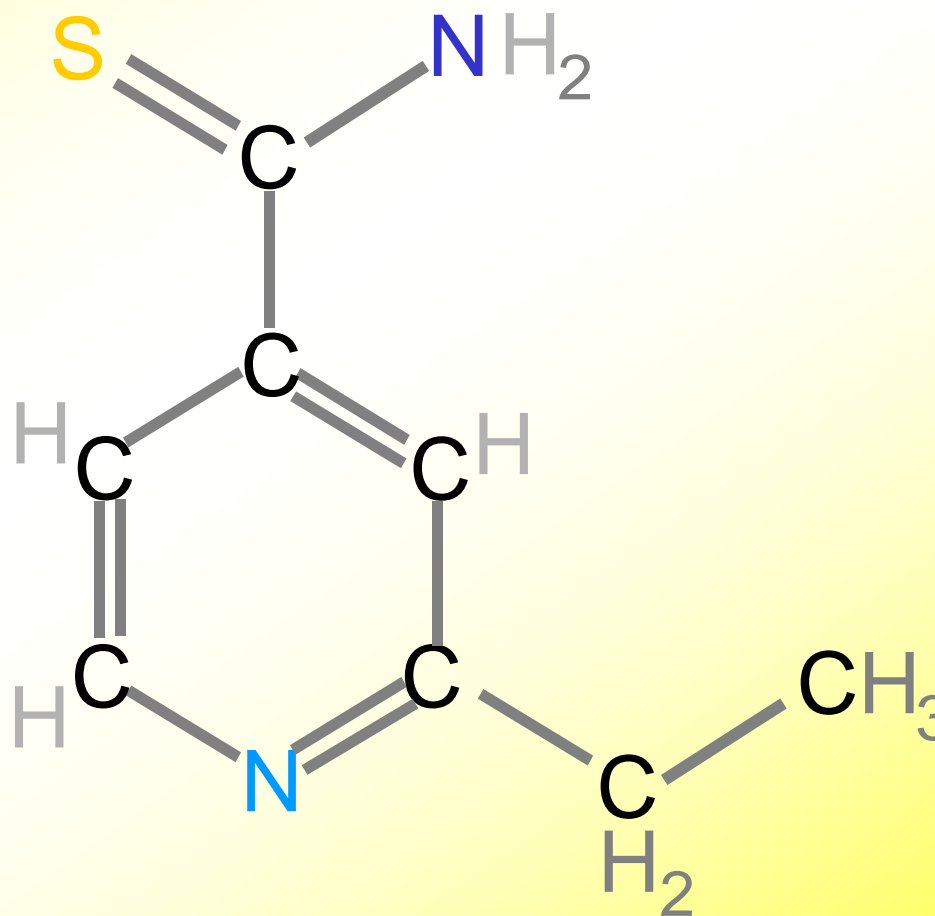
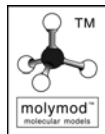


Ethionamide

A bactericide which is used in the treatment of pulmonary tuberculosis TB

What you will need:

8	C	Carbon
1	N	Nitrogen dark blue
1	N	Nitrogen light blue
1	S	Sulphur
10	H	Hydrogen (White)
7	—	short grey single bonds
8	==	long grey double bonds

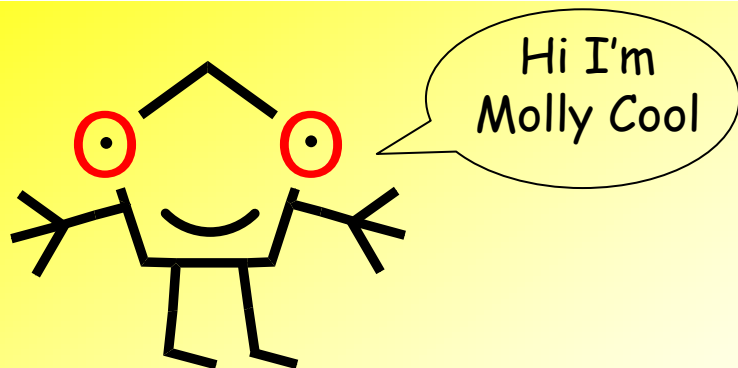


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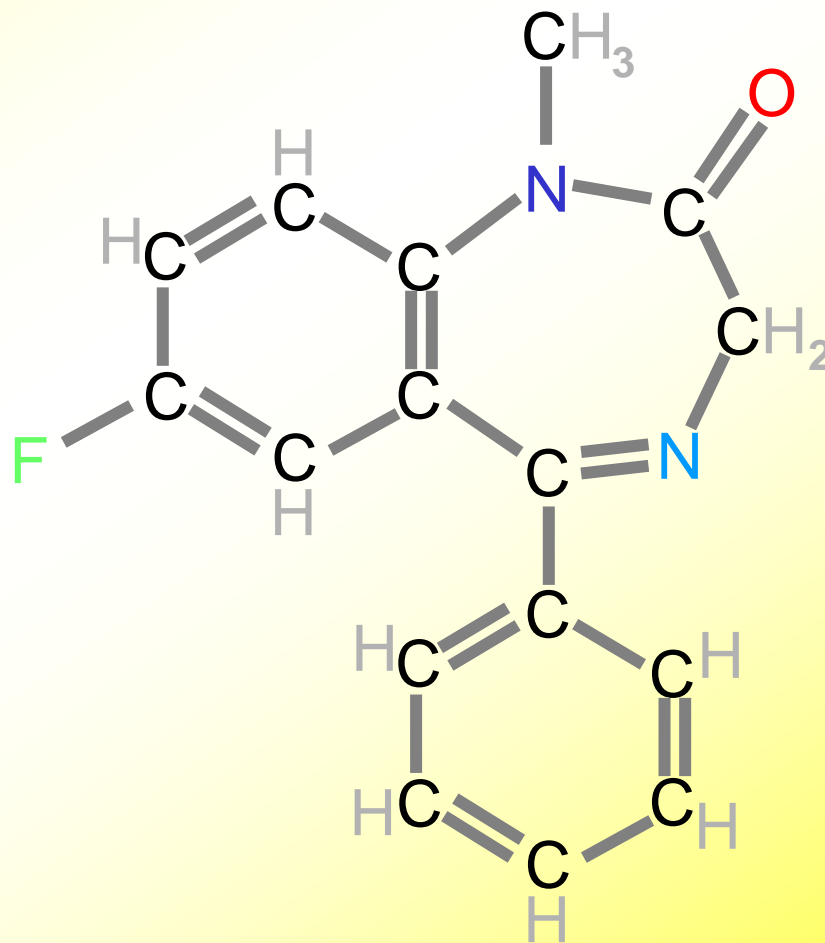
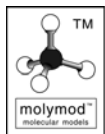


Diazepam

A commonly used sedative

What you will need:

16	C	Carbon
1	O	Oxygen
1	N	Nitrogen dark blue
1	N	Nitrogen light blue
1	F	Fluorine
13	H	Hydrogen (White)
13	—	short grey single bonds
16	==	long grey double bonds



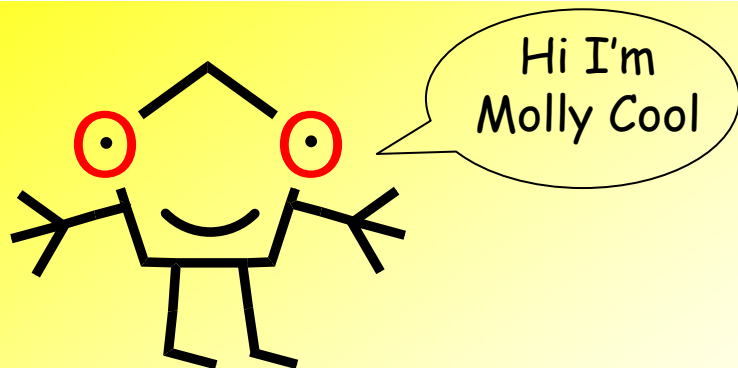
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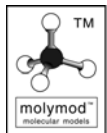


Fluorouracil

An antitumour agent used in the treatment of cancer

What you will need:

- | | | |
|---|----|-------------------------|
| 4 | C | Carbon |
| 2 | O | Oxygen |
| 2 | N | Nitrogen dark blue |
| 1 | F | Fluorine |
| 3 | H | Hydrogen (White) |
| 6 | — | short grey single bonds |
| 6 | == | long grey double bonds |

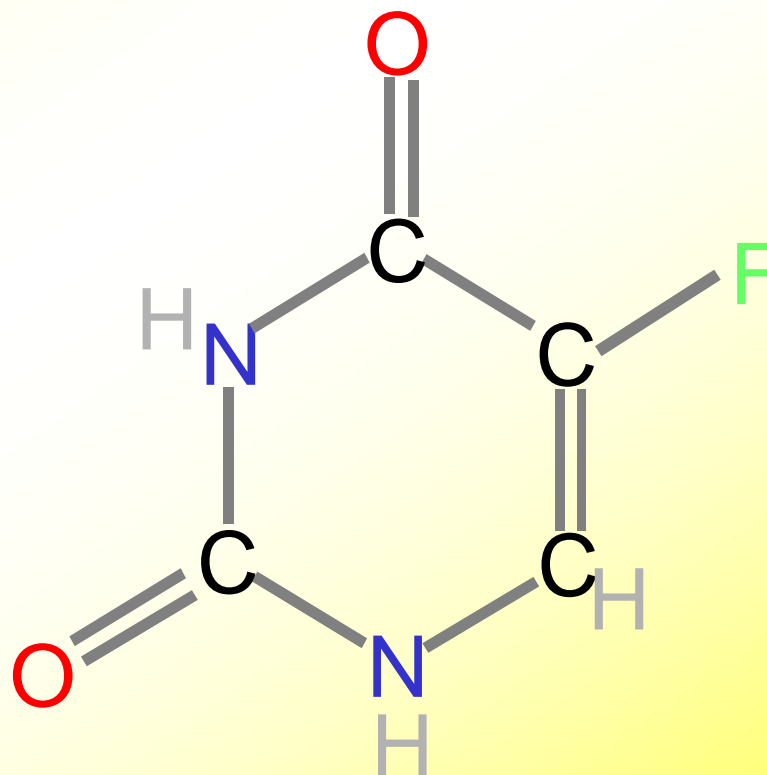


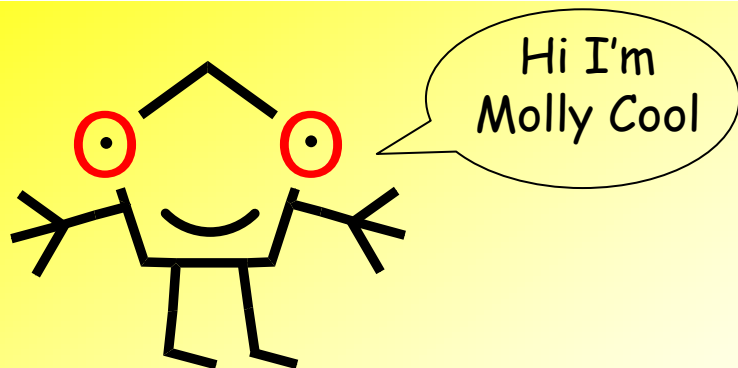
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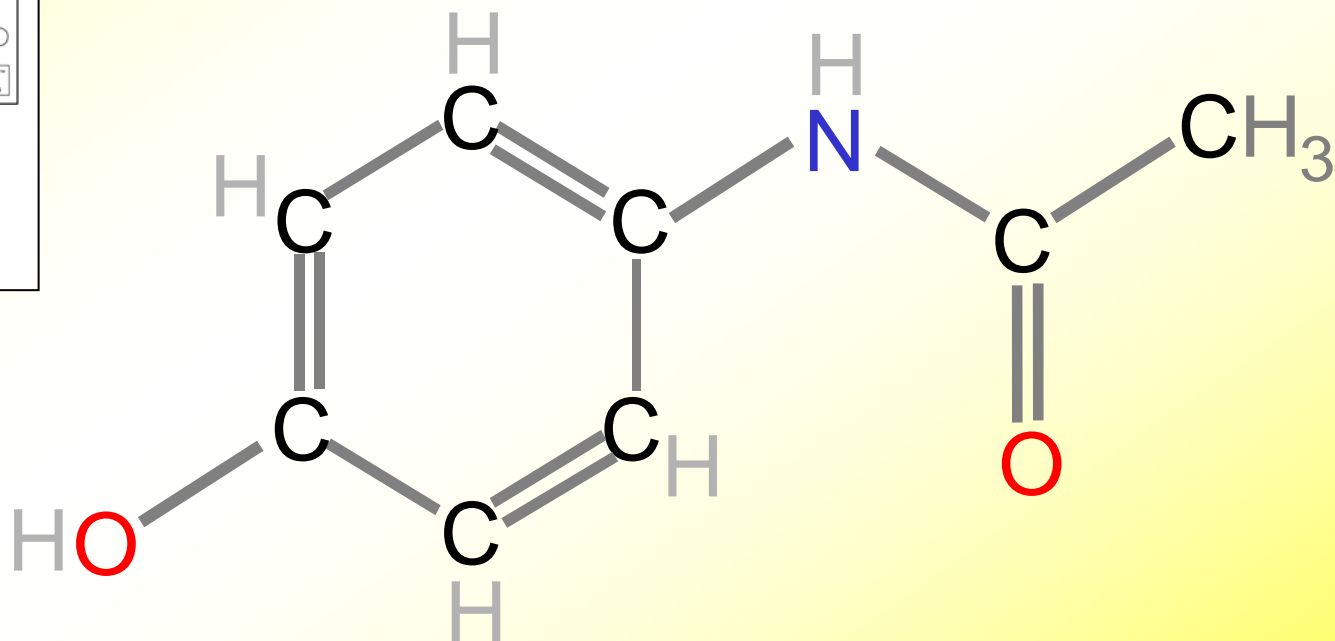
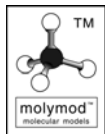


Paracetamol

A common pain killer

What you will need:

- | | | |
|---|----|-------------------------|
| 8 | C | Carbon |
| 2 | O | Oxygen |
| 1 | N | Nitrogen dark blue |
| 9 | H | Hydrogen (White) |
| 7 | — | short grey single bonds |
| 8 | == | long grey double bonds |

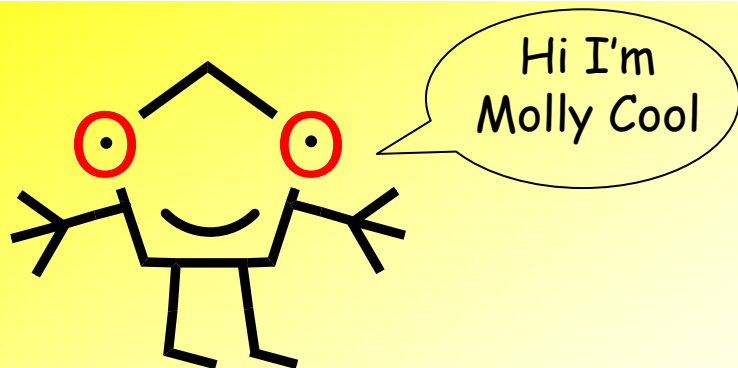


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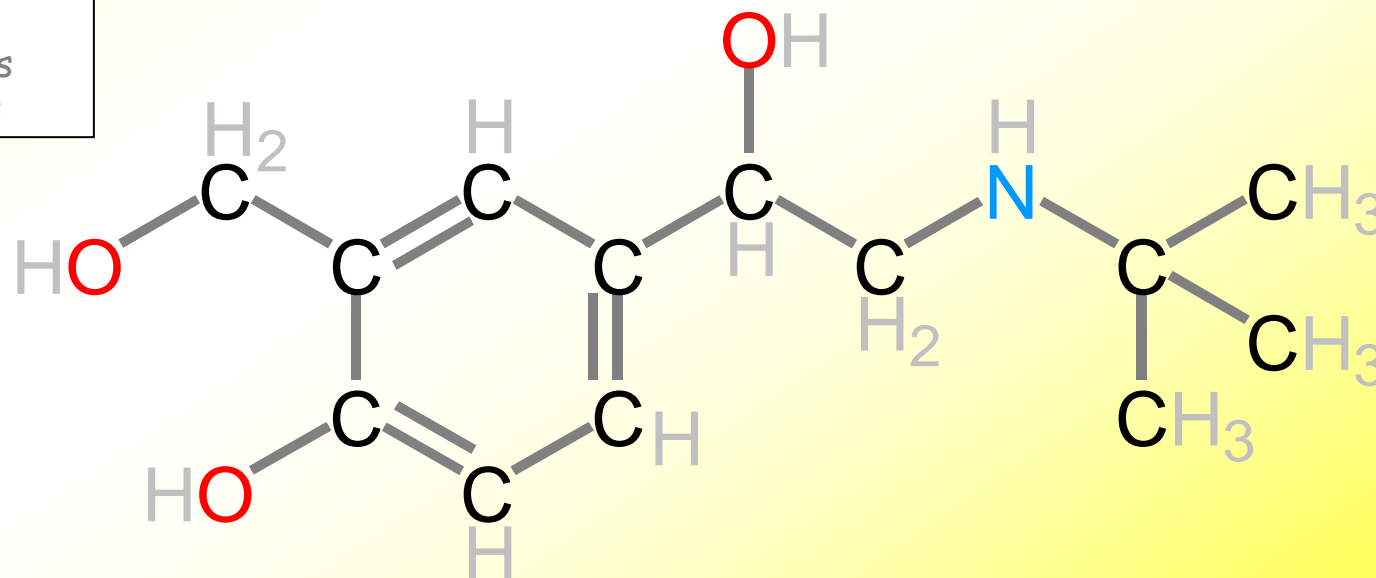
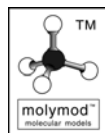


Salbutamol

A common asthma drug found in inhalers

What you will need:

- 13 C Carbon
- 1 N Nitrogen Light Blue
- 3 O Oxygen
- 21 H Hydrogen (White)
- 14 — short grey single bonds
- 6 == long grey double bonds

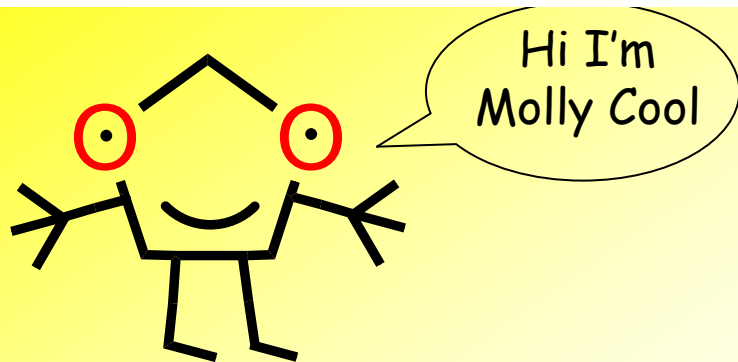


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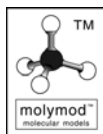


Viagra

Known as the 'Pfizer Riser' after the company who discovered it and its effect. It helps men achieve an erection.

What you will need:

- 22 C Carbon
- 2 N Nitrogen (Dark Blue)
- 4 N Nitrogen (Light Blue)
- 4 O Oxygen
- 1 S Sulphur
- 30 H Hydrogen (White)
- 27 — short grey single bonds
- 18 == long grey double bonds



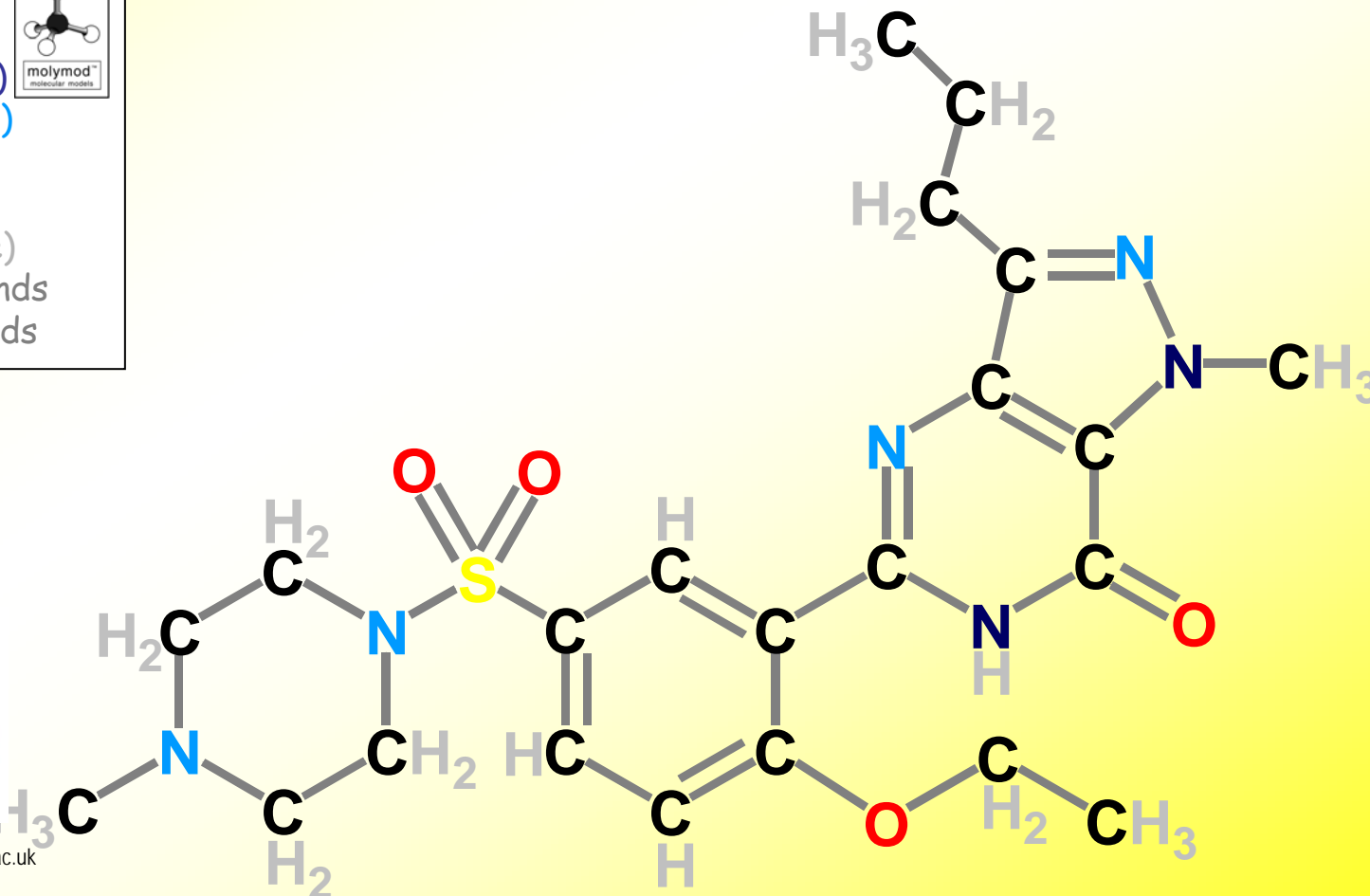
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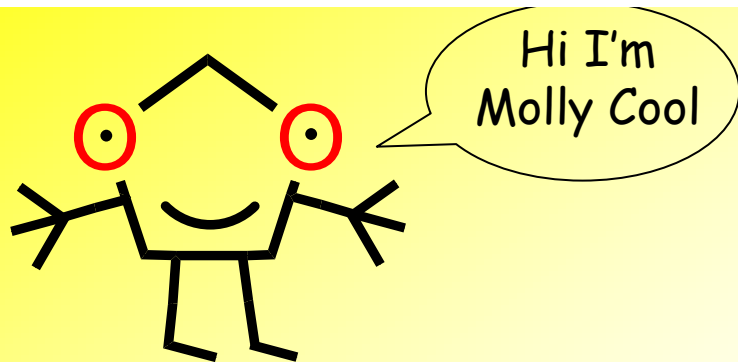
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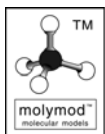


Propranolol

A β -blocker that slows down the heart

What you will need:

16	C	Carbon
2	O	Oxygen
1	N	Nitrogen light blue
21	H	Hydrogen (White)
15	—	short grey single bonds
10	==	long grey double bonds

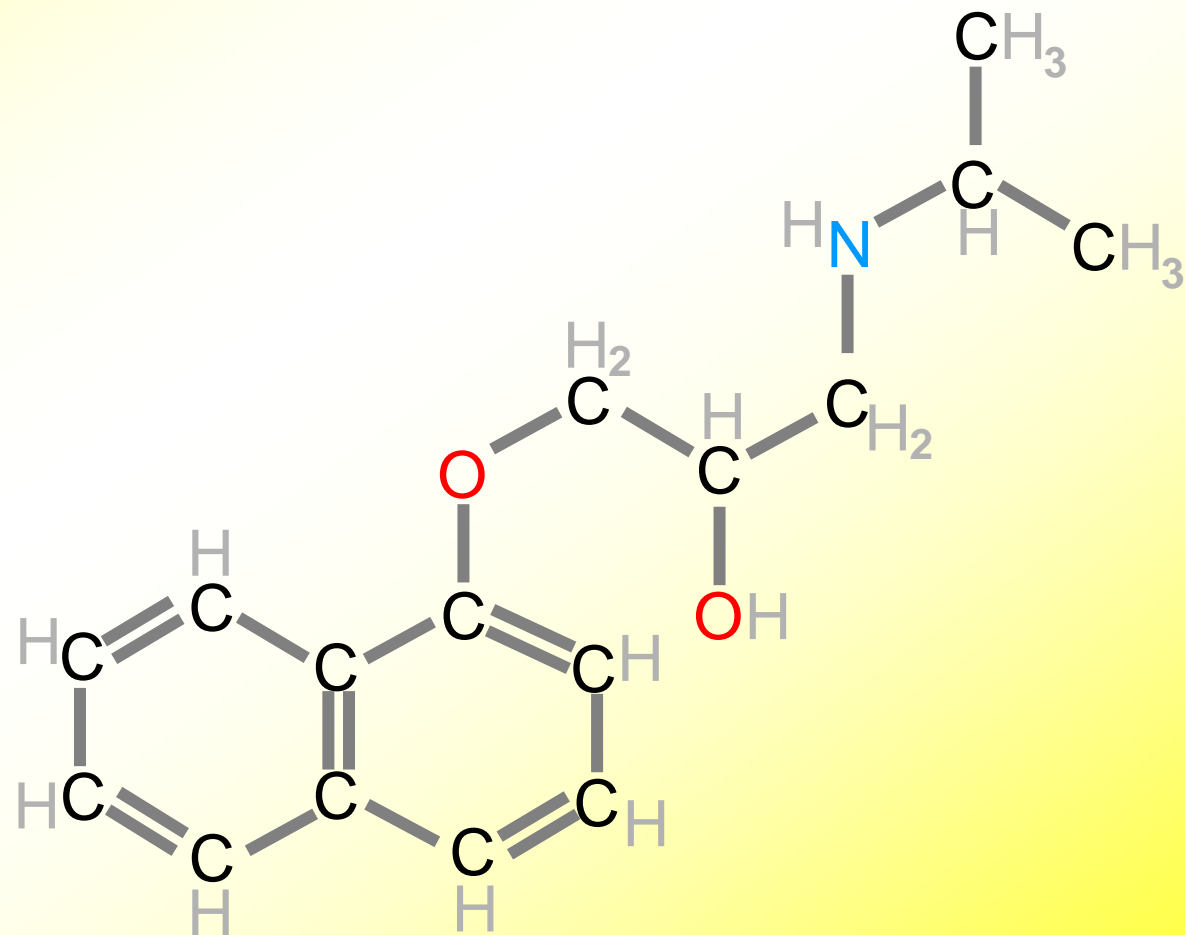


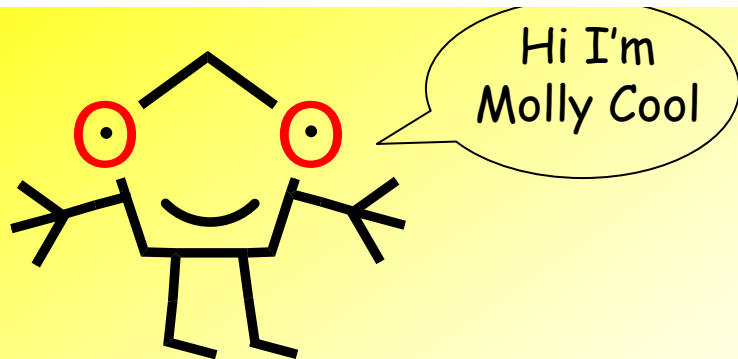
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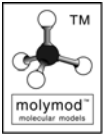
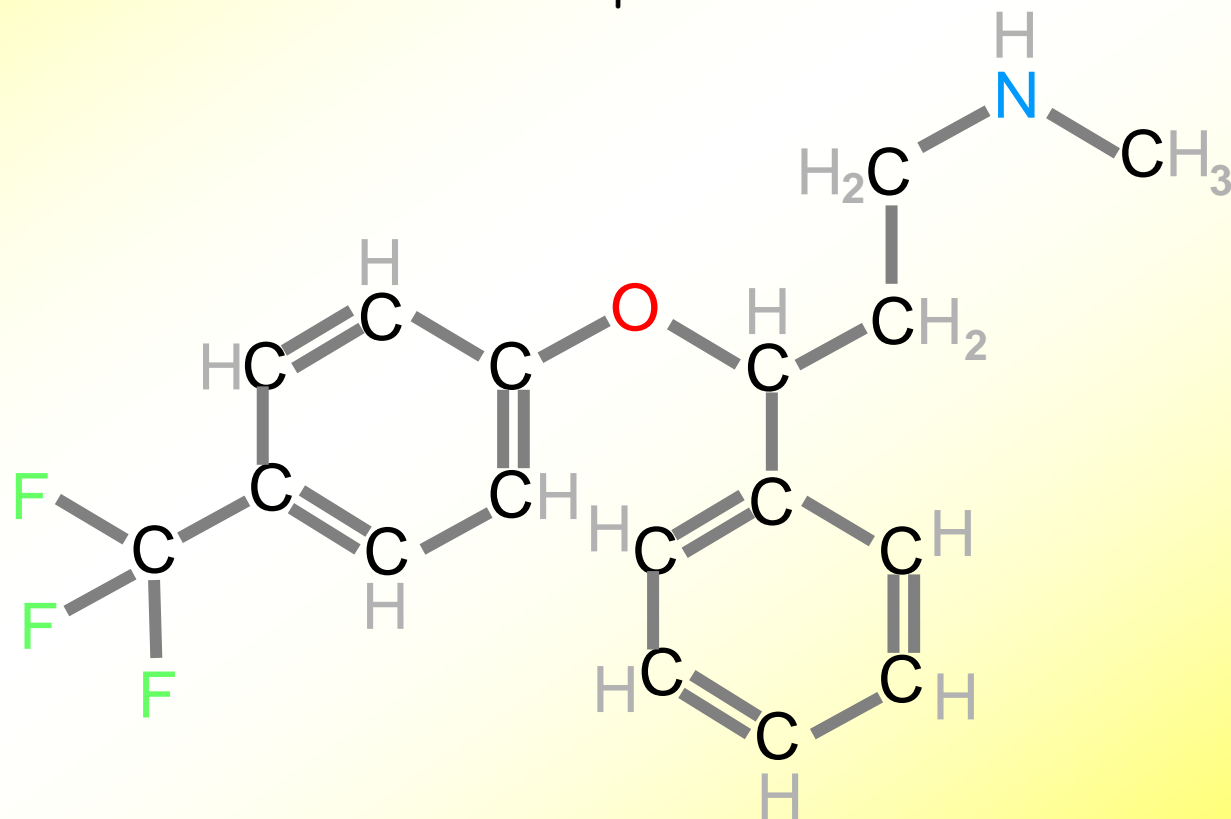


Prozac

An antidepressant

What you will need:

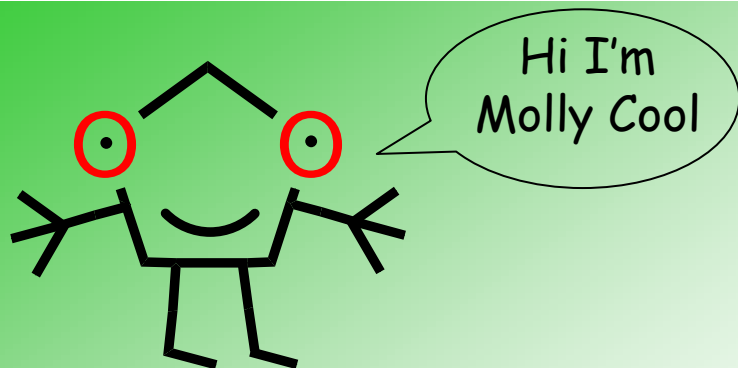
17	C	Carbon
1	O	Oxygen
1	N	Nitrogen light blue
3	F	Fluorine
18	H	Hydrogen (White)
17	—	short grey single bonds
12	==	long grey double bonds

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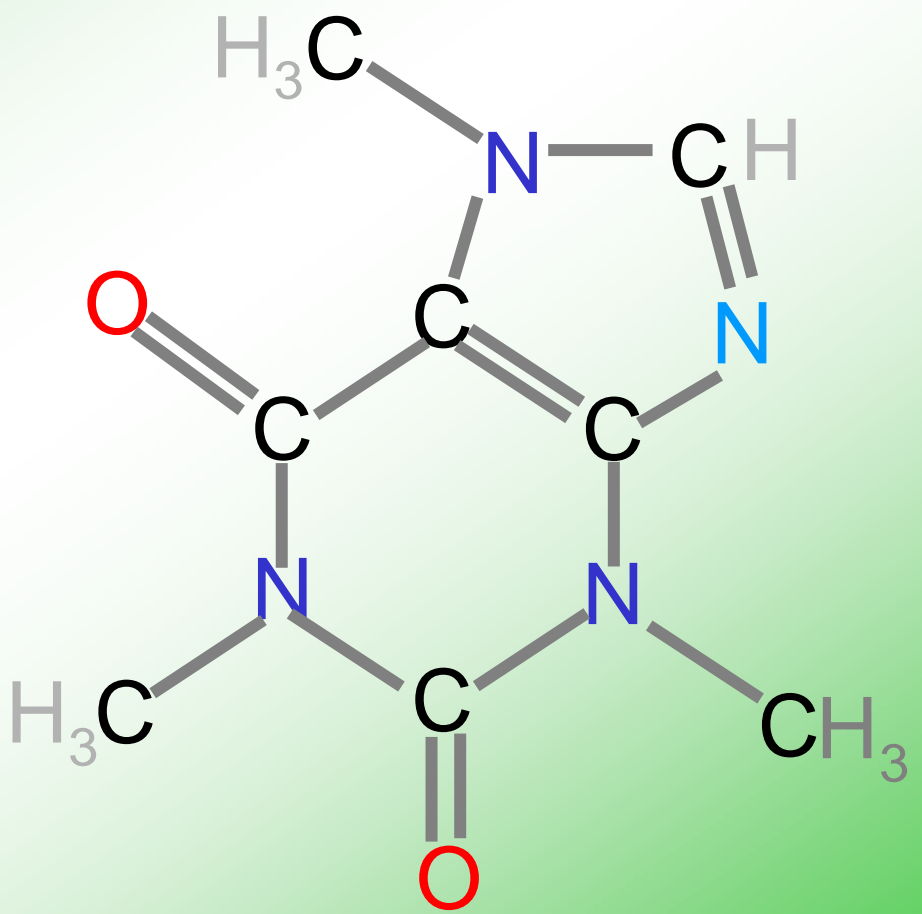
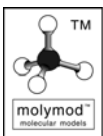
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Caffeine

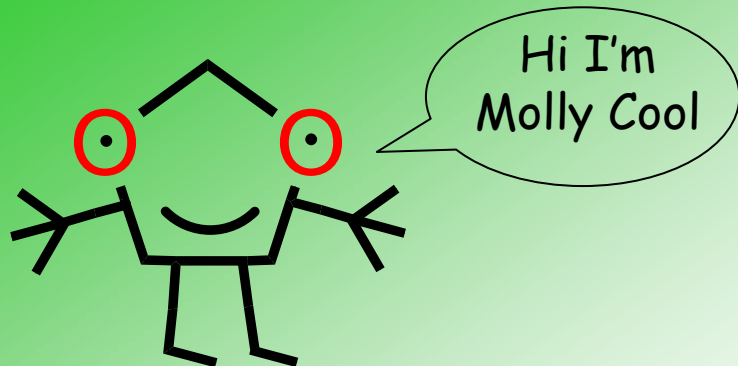
The stimulant in coffee

- What you will need:
- 8 C Carbon
 - 2 O Oxygen
 - 3 N Nitrogen dark blue
 - 1 N Nitrogen light blue
 - 10 H Hydrogen (White)
 - 11 — short grey single bonds
 - 8 == long grey double bonds



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Citric Acid

The acid in oranges, lemons
& fizzy drinks

What you will need:

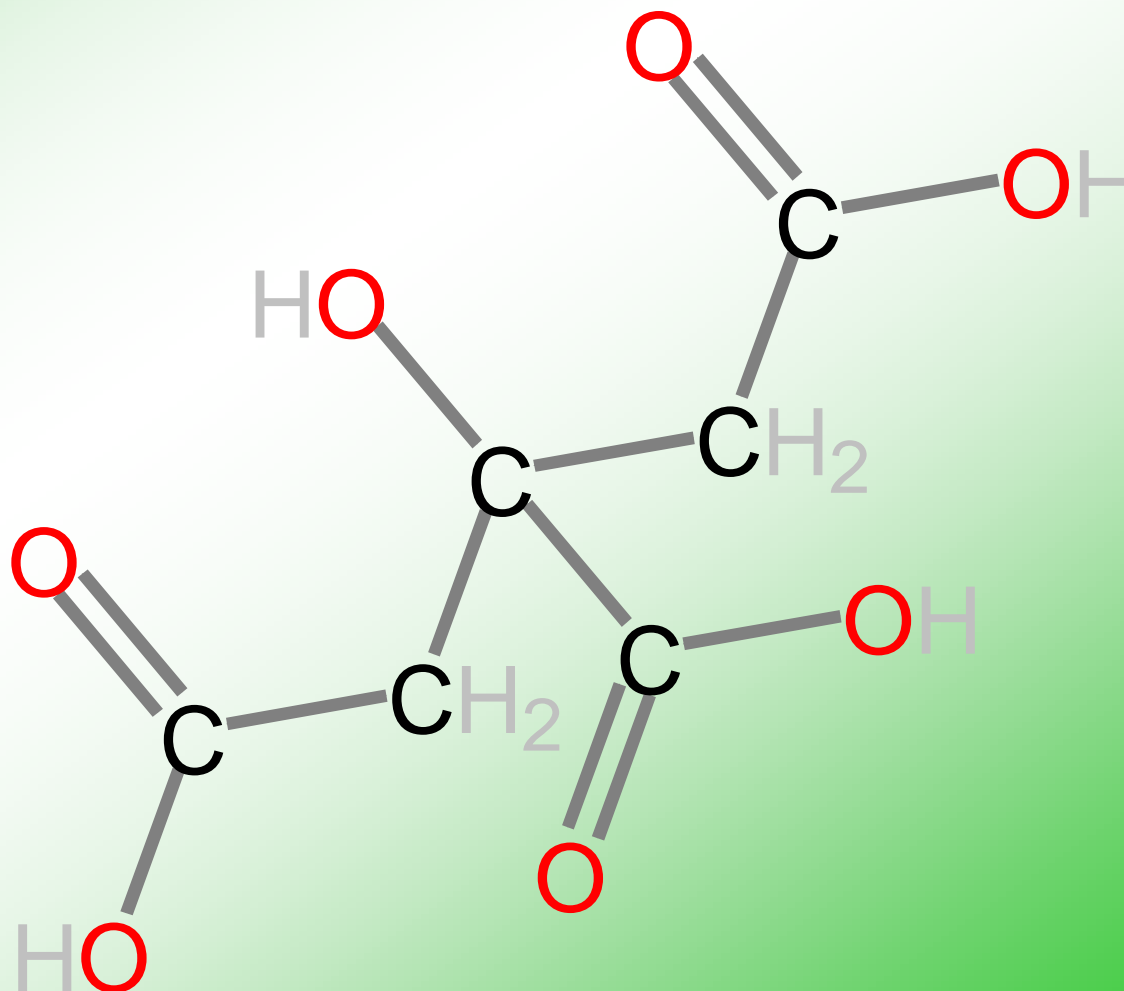
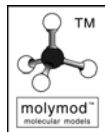
6 C Carbon

7 O Oxygen

8 H Hydrogen (White)

9 — short grey single bonds

6 == long grey double bonds

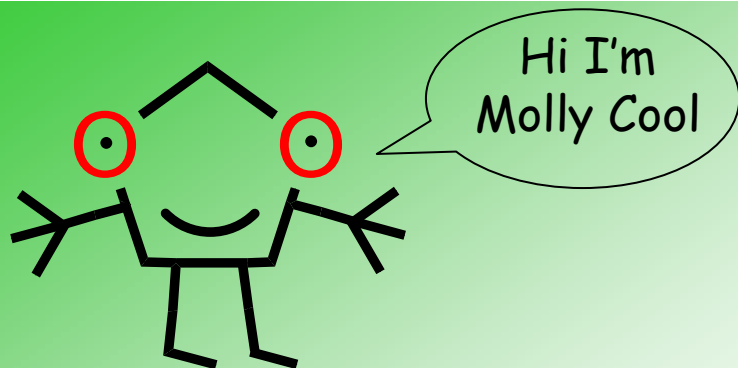


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Acetic Acid

Commonly known as vinegar it is made from the oxidation of alcohol see ethanol

What you will need:

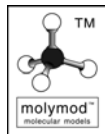
2 C Carbon

2 O Oxygen

4 H Hydrogen (White)

2 — short grey single bonds

2 == long grey double bonds

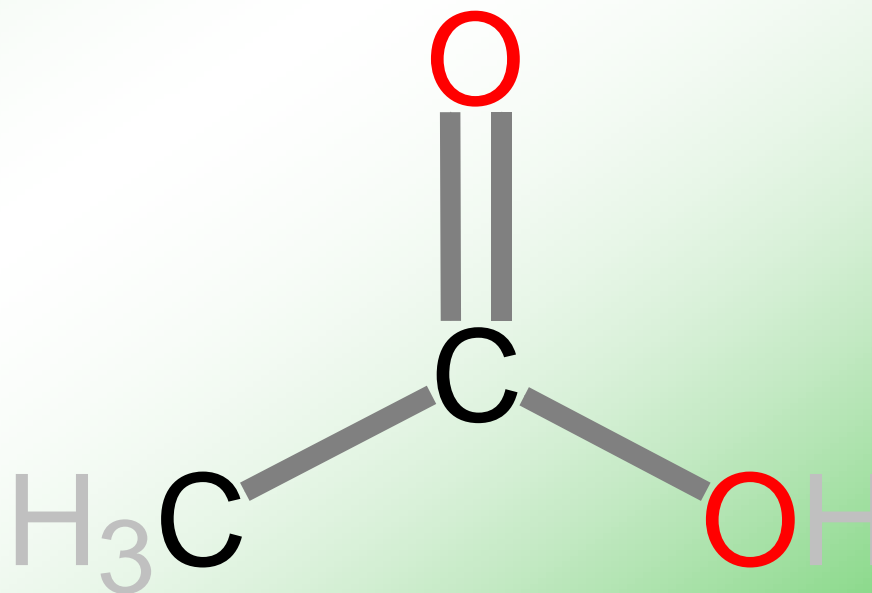


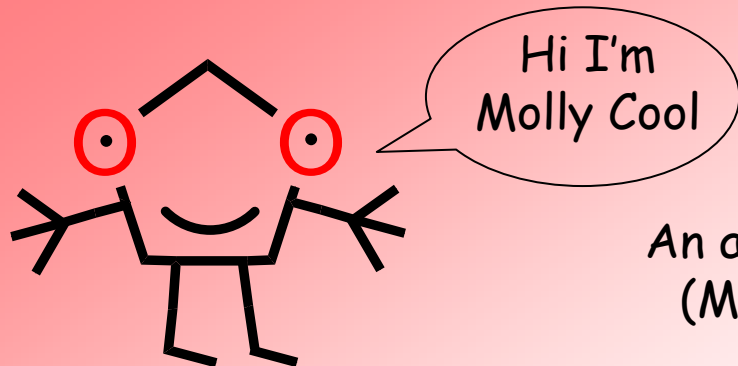
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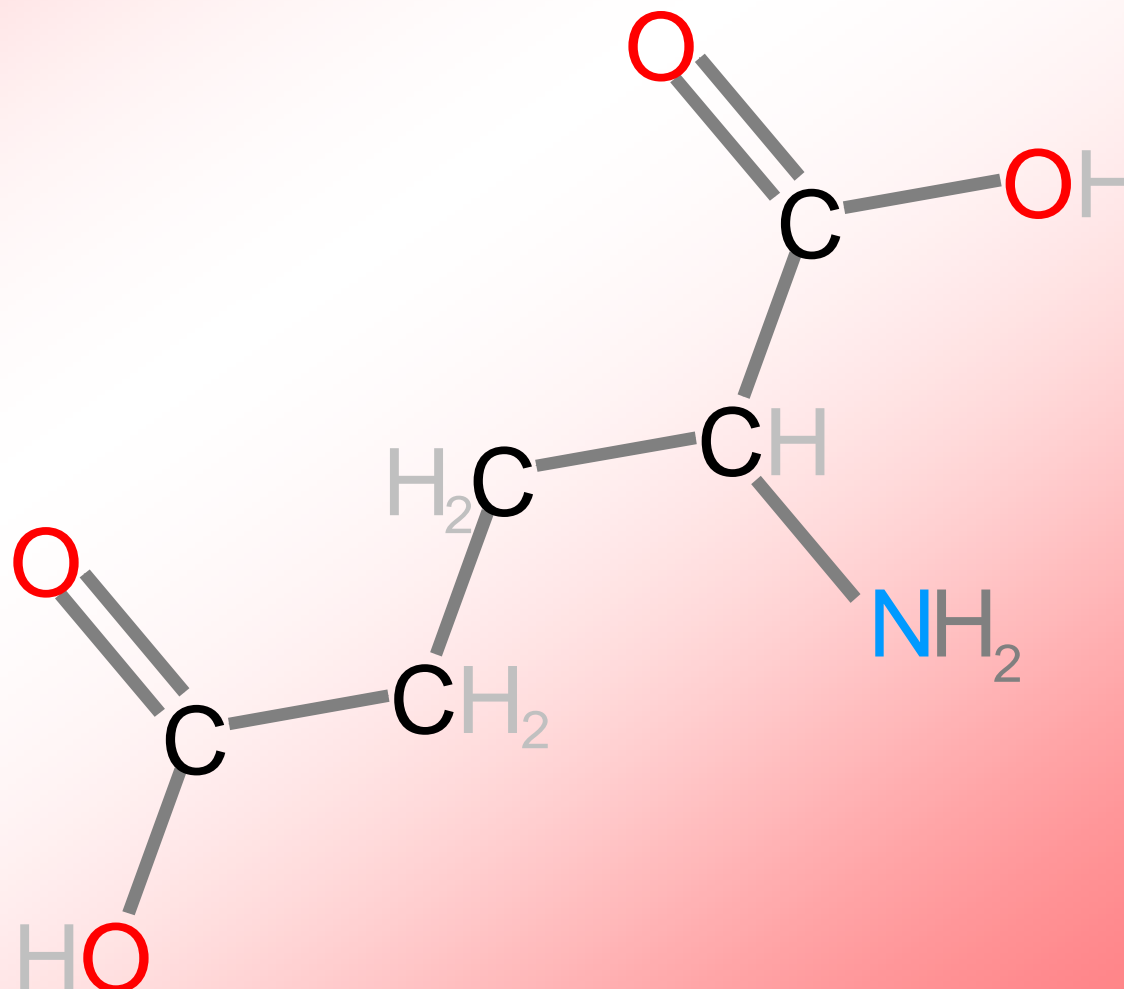
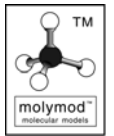


Glutamic Acid

An amino acid that is found in proteins. Its sodium (MSG) derivative is used as a savoury flavouring

What you will need:

5	C	Carbon
4	O	Oxygen
1	N	Nitrogen light blue
9	H	Hydrogen (White)
7	—	short grey single bonds
4	==	long grey double bonds

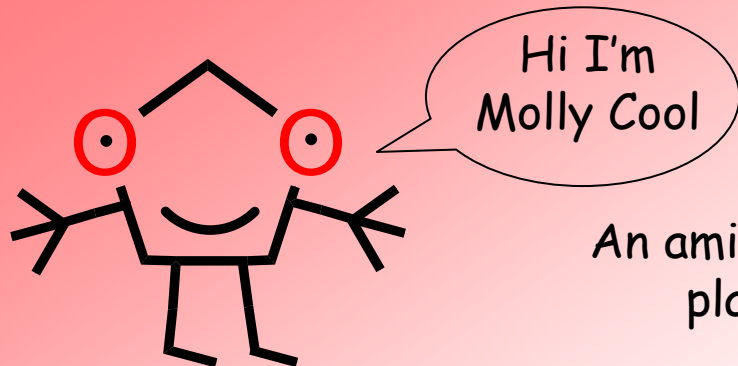


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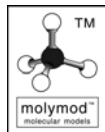


Methionine

An amino acid found in milk proteins and which in humans plays a role in the regulation of thyroid activity.

What you will need:

5	C	Carbon
2	O	Oxygen
1	N	Nitrogen light blue
1	S	Sulphur
11	H	Hydrogen (White)
7	—	short grey single bonds
2	=	long grey double bonds

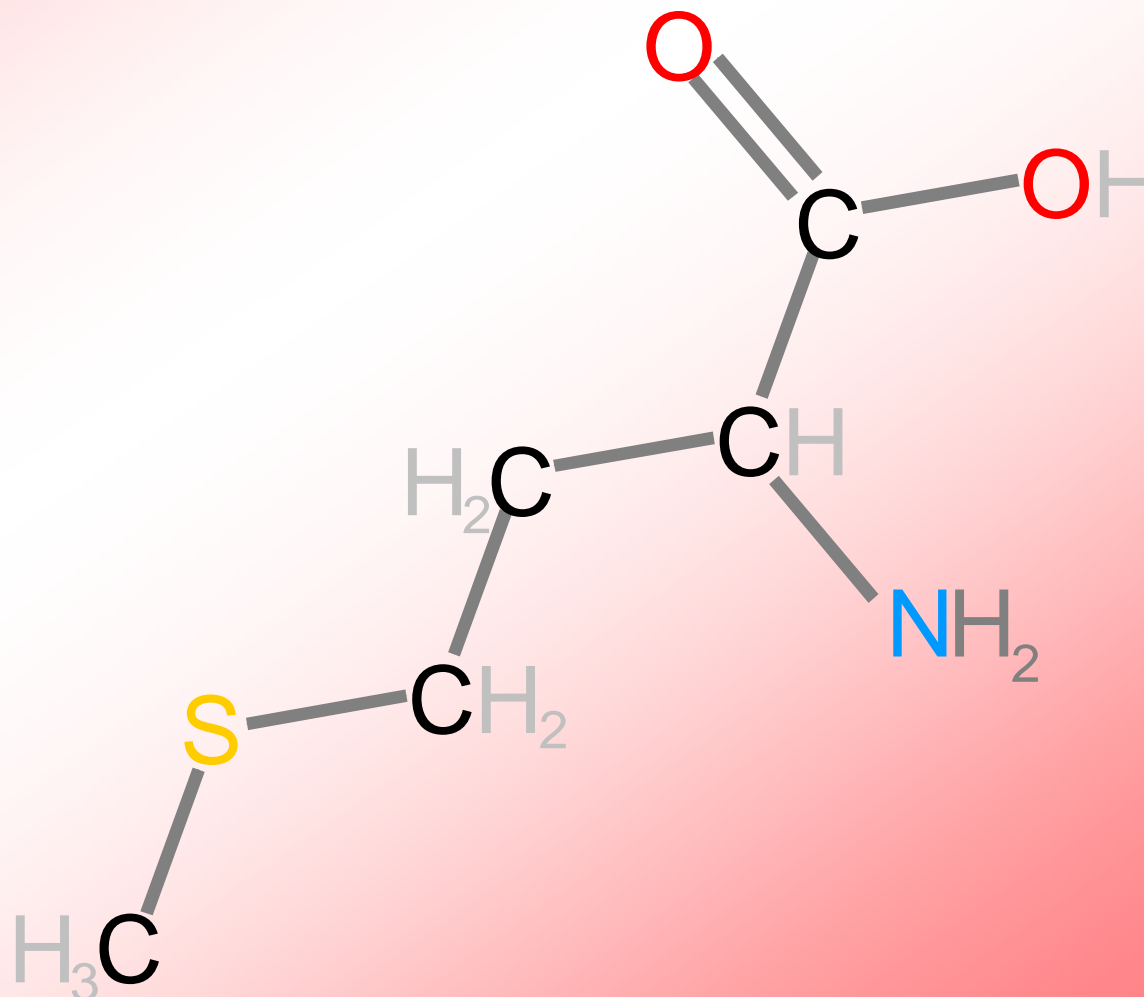


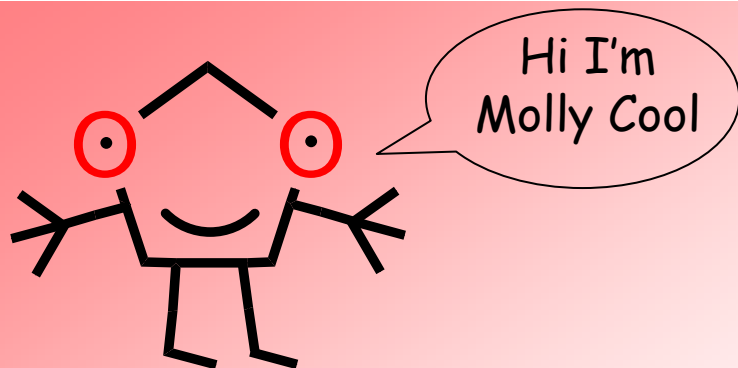
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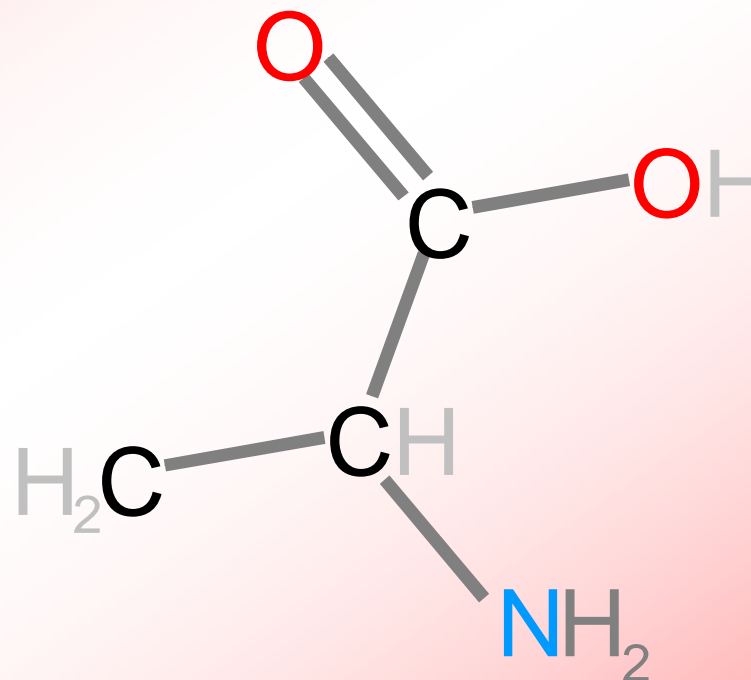
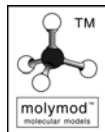


Alanine

An amino acid

What you will need:

5	C	Carbon
2	O	Oxygen
1	N	Nitrogen light blue
1	S	Sulphur
11	H	Hydrogen (White)
7	—	short grey single bonds
2	=	long grey double bonds

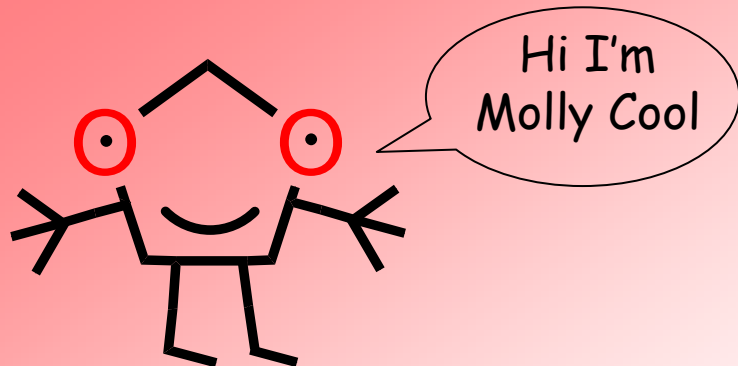


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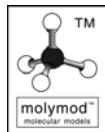


Valine

An amino acid

What you will need:

5	C	Carbon
2	O	Oxygen
1	N	Nitrogen light blue
1	S	Sulphur
11	H	Hydrogen (White)
7	—	short grey single bonds
2	=	long grey double bonds

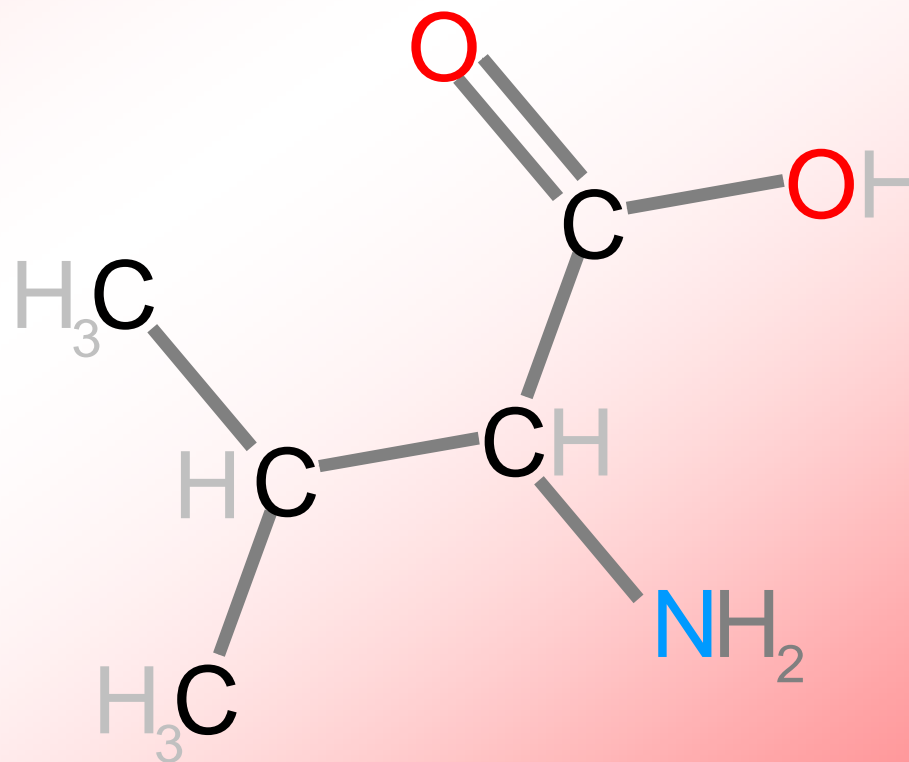


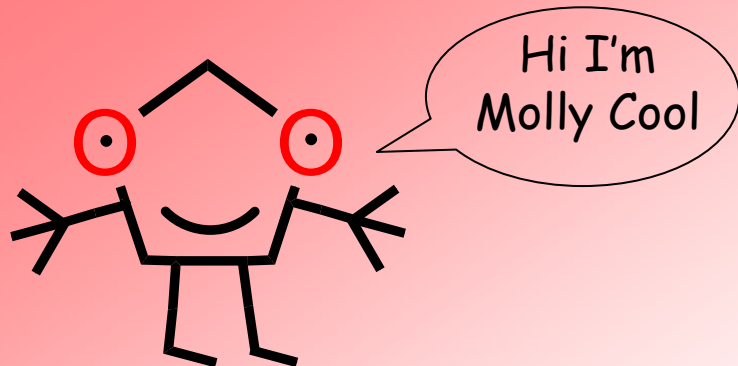
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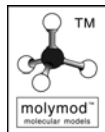


Threonine

An amino acid

What you will need:

5	C	Carbon
2	O	Oxygen
1	N	Nitrogen light blue
1	S	Sulphur
11	H	Hydrogen (White)
7	—	short grey single bonds
2	==	long grey double bonds

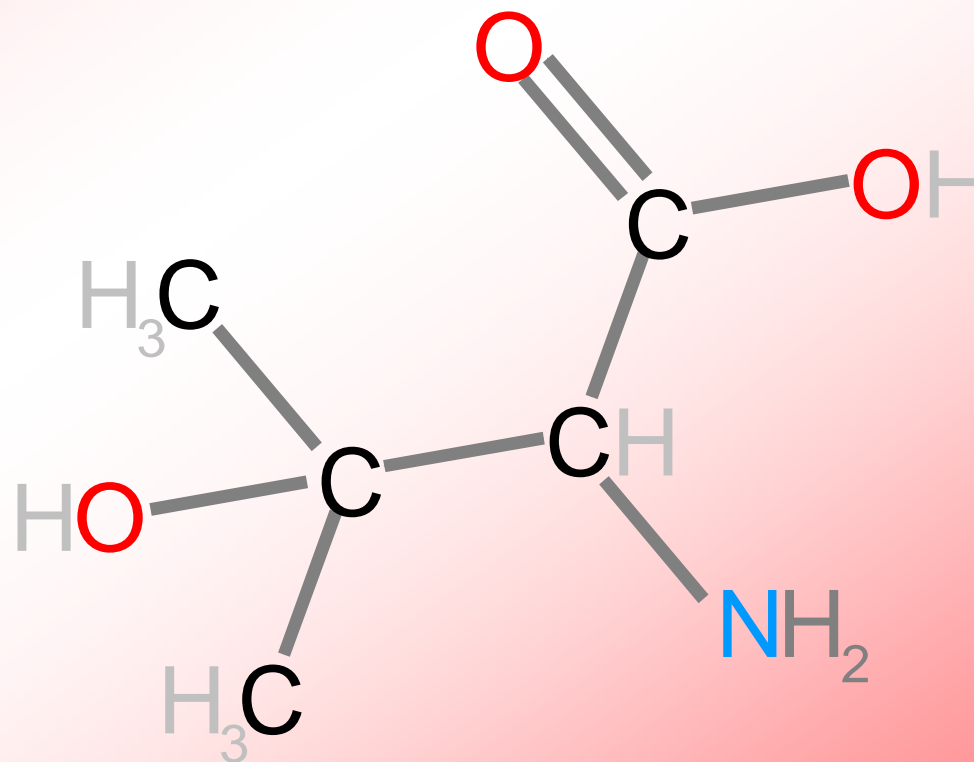


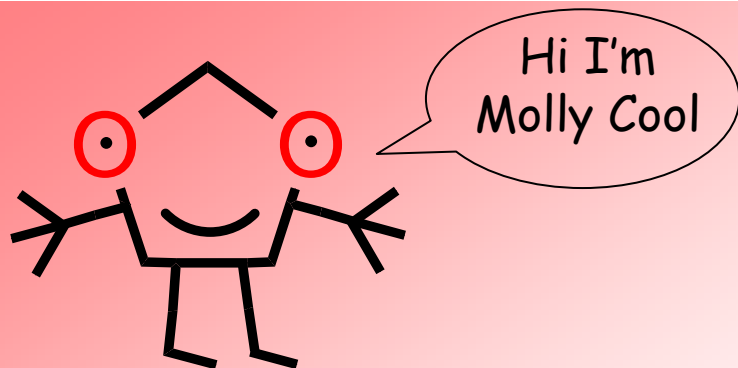
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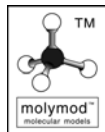


Leucine

An amino acid

What you will need:

5	C	Carbon
2	O	Oxygen
1	N	Nitrogen light blue
1	S	Sulphur
11	H	Hydrogen (White)
7	—	short grey single bonds
2	=	long grey double bonds

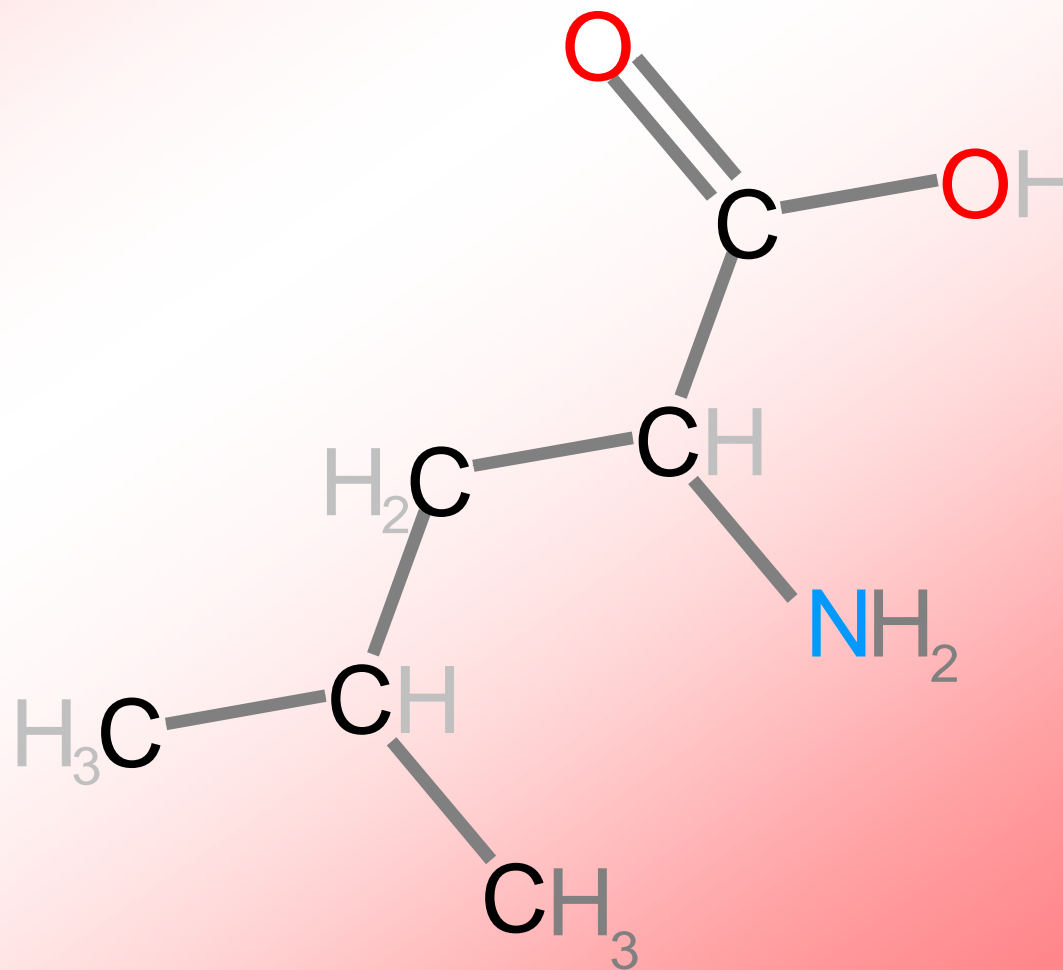


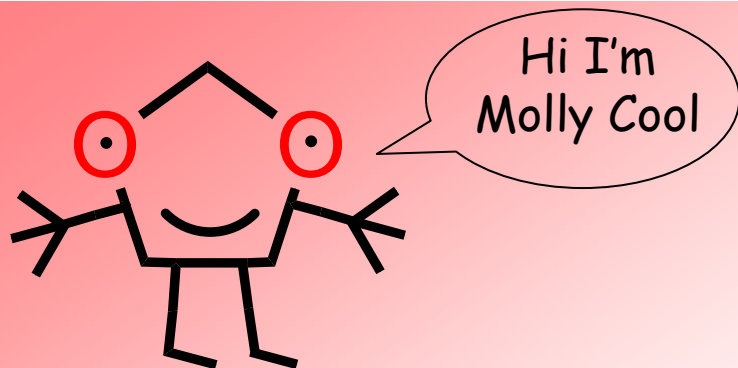
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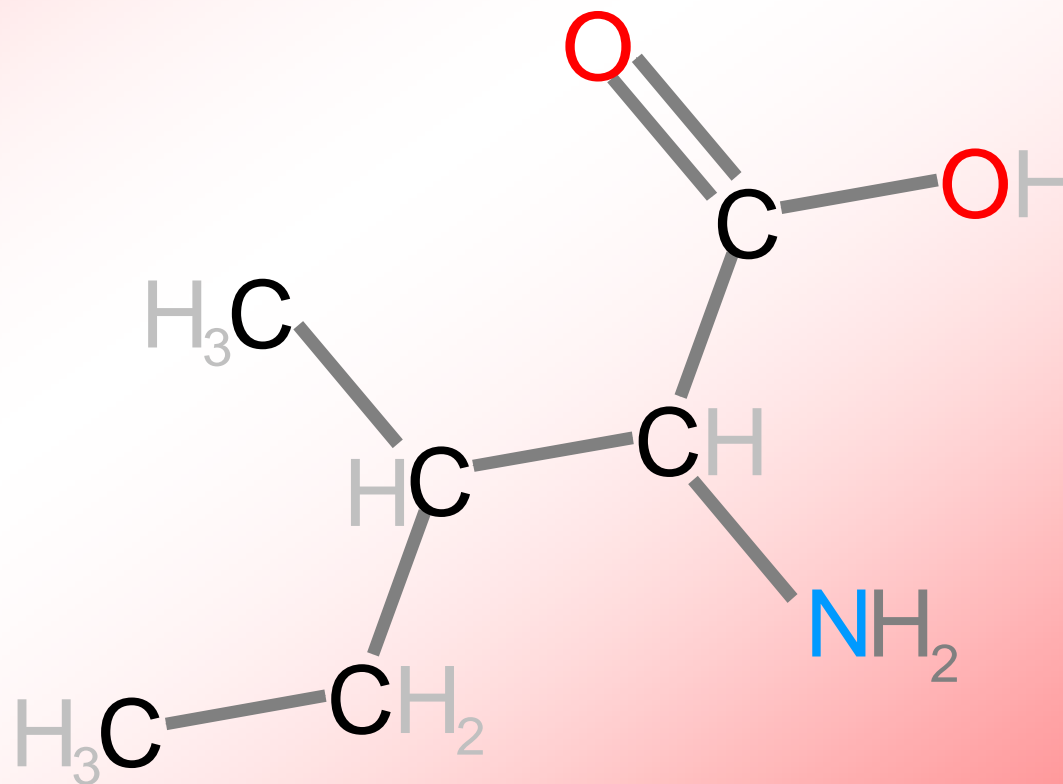
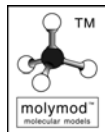


Isoleucine

An amino acid

What you will need:

- | | | |
|----|---|-------------------------|
| 5 | C | Carbon |
| 2 | O | Oxygen |
| 1 | N | Nitrogen light blue |
| 1 | S | Sulphur |
| 11 | H | Hydrogen (White) |
| 7 | — | short grey single bonds |
| 2 | = | long grey double bonds |

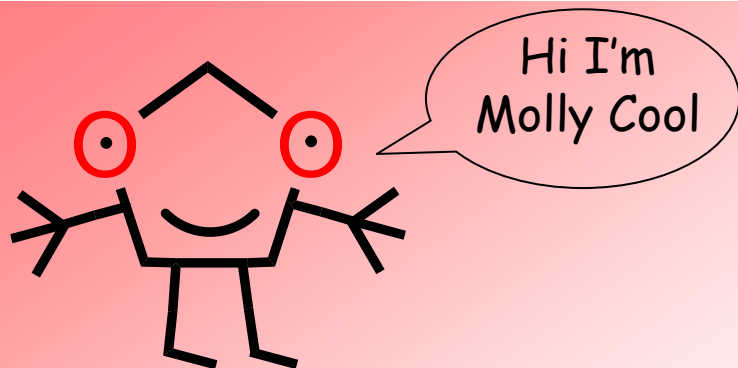


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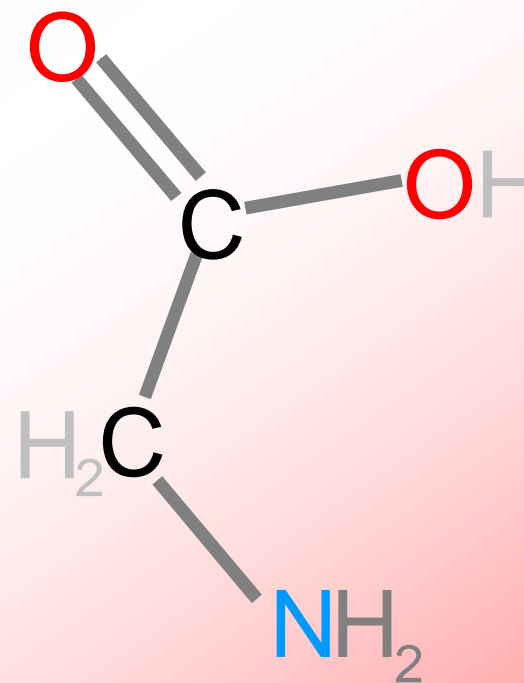
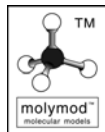


Glycine

An amino acid

What you will need:

5	C	Carbon
2	O	Oxygen
1	N	Nitrogen light blue
1	S	Sulphur
11	H	Hydrogen (White)
7	—	short grey single bonds
2	=	long grey double bonds

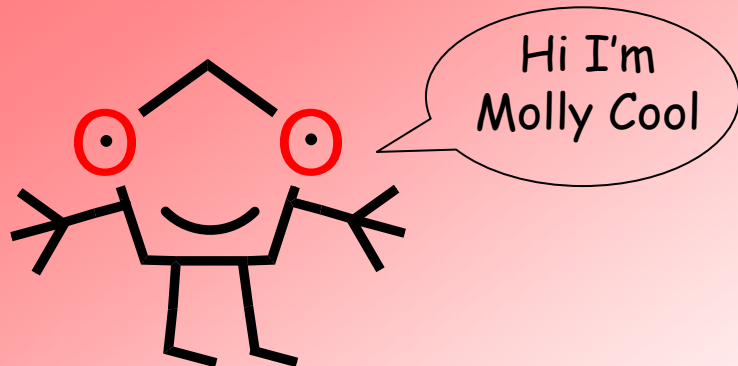


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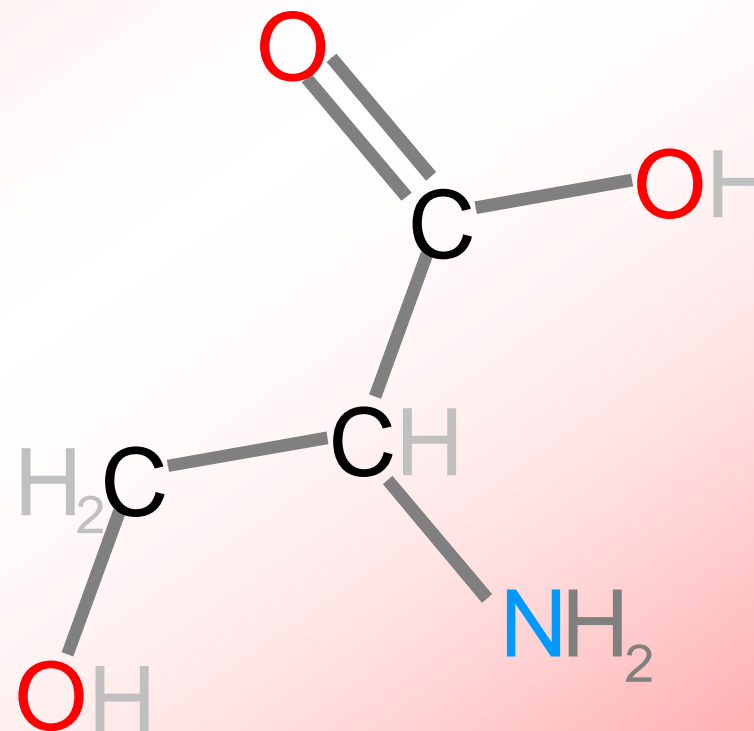
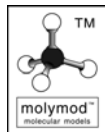


Serine

An amino acid

What you will need:

5	C	Carbon
2	O	Oxygen
1	N	Nitrogen light blue
1	S	Sulphur
11	H	Hydrogen (White)
7	—	short grey single bonds
2	=	long grey double bonds

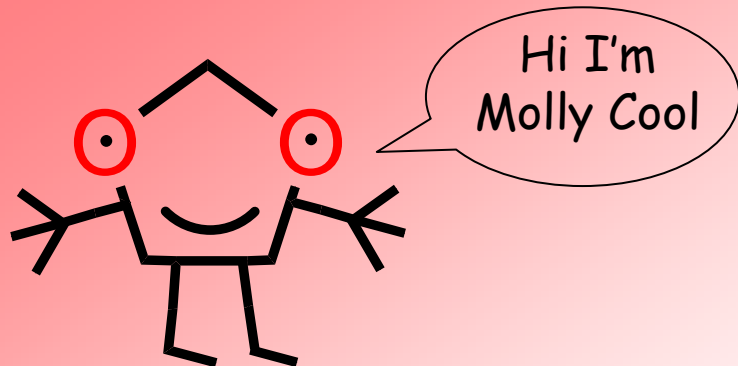


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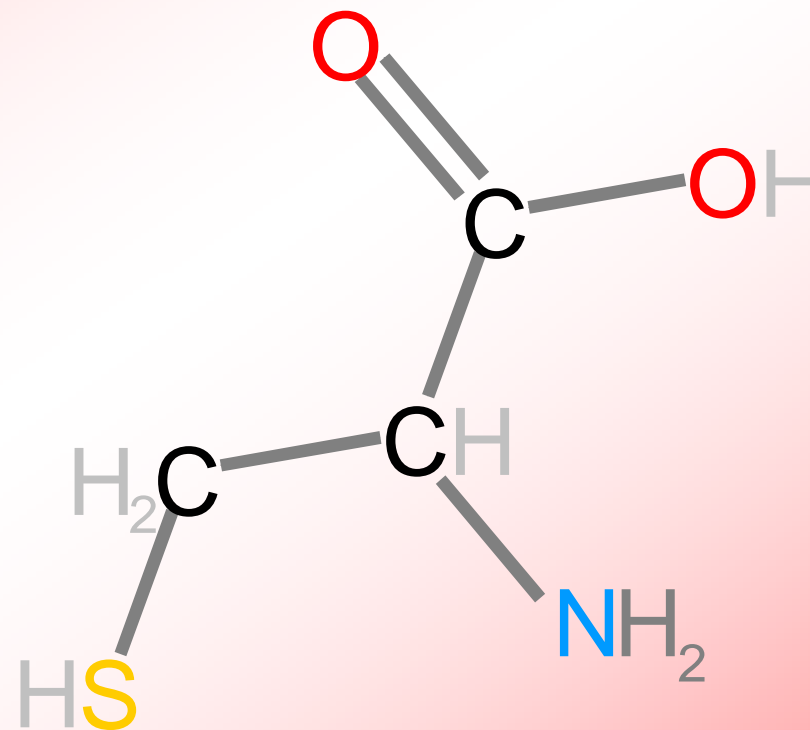
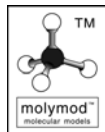


Cysteine

An amino acid

What you will need:

5	C	Carbon
2	O	Oxygen
1	N	Nitrogen light blue
1	S	Sulphur
11	H	Hydrogen (White)
7	—	short grey single bonds
2	=	long grey double bonds

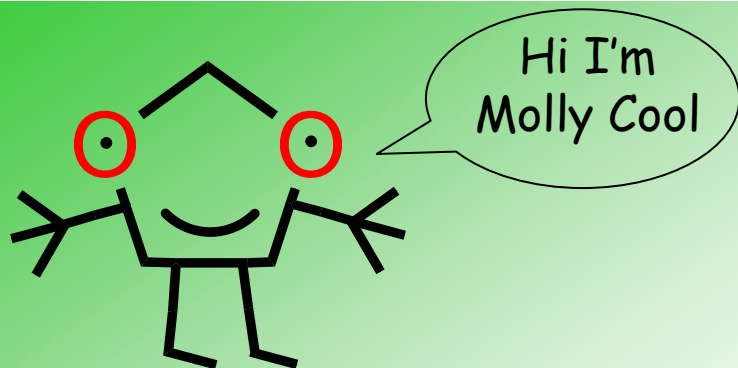


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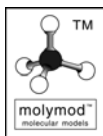
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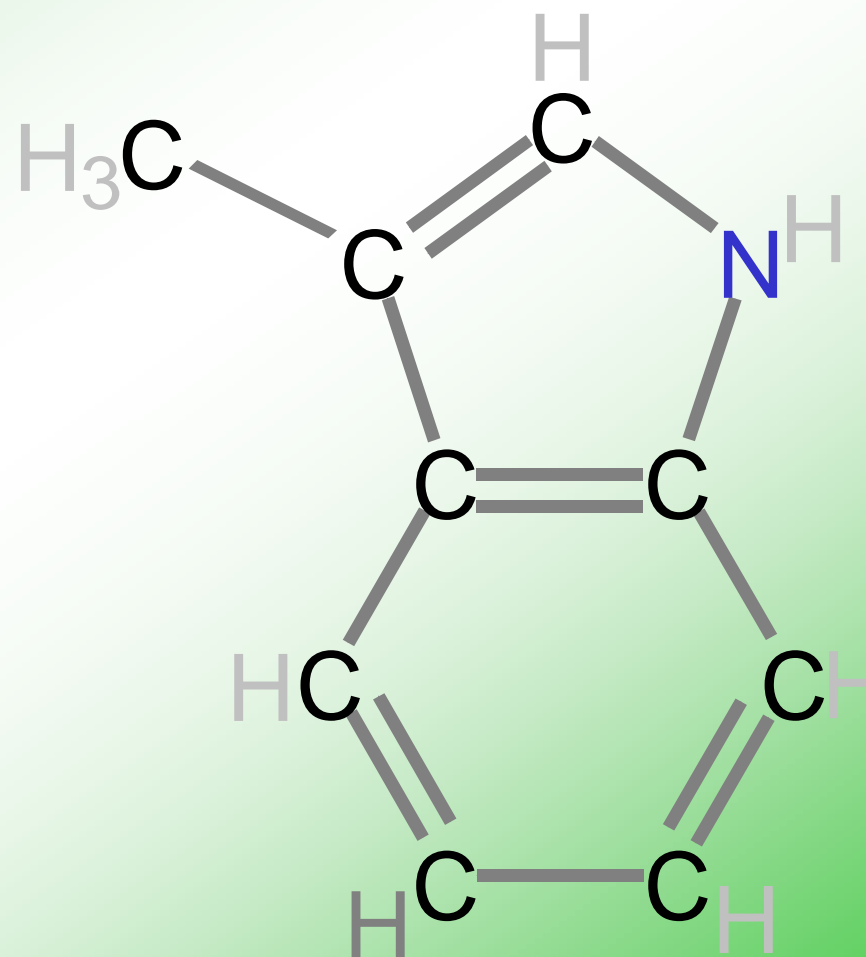
What you will need:

- 9 C Carbon
- 1 N Nitrogen dark blue
- 9 H Hydrogen (White)
- 7 — short grey single bonds
- 8 == long grey double bonds



Skatole

A very smelly molecule found in human poo

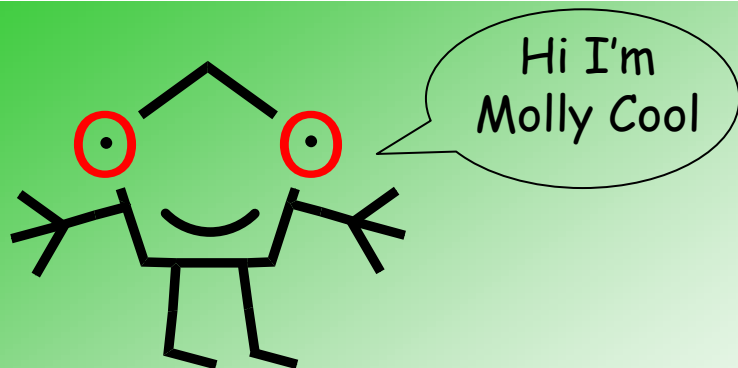


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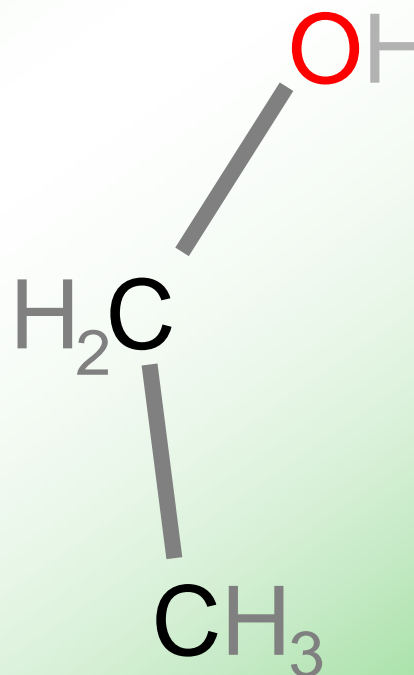
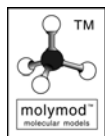


Ethanol

The Alcohol found in beer and wine

What you will need:

- 2 C Carbon
- 1 O Oxygen
- 6 H Hydrogen (White)
- 2 — short grey single bonds



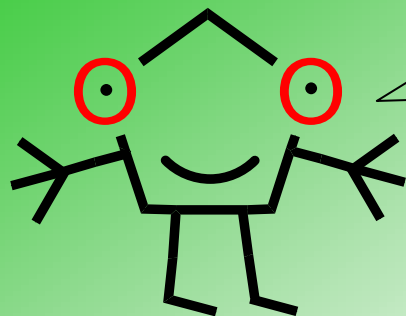
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Hi I'm
Molly Cool

What you will need:

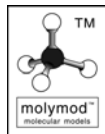
6 C Carbon

1 O Oxygen

12 H Hydrogen (White)

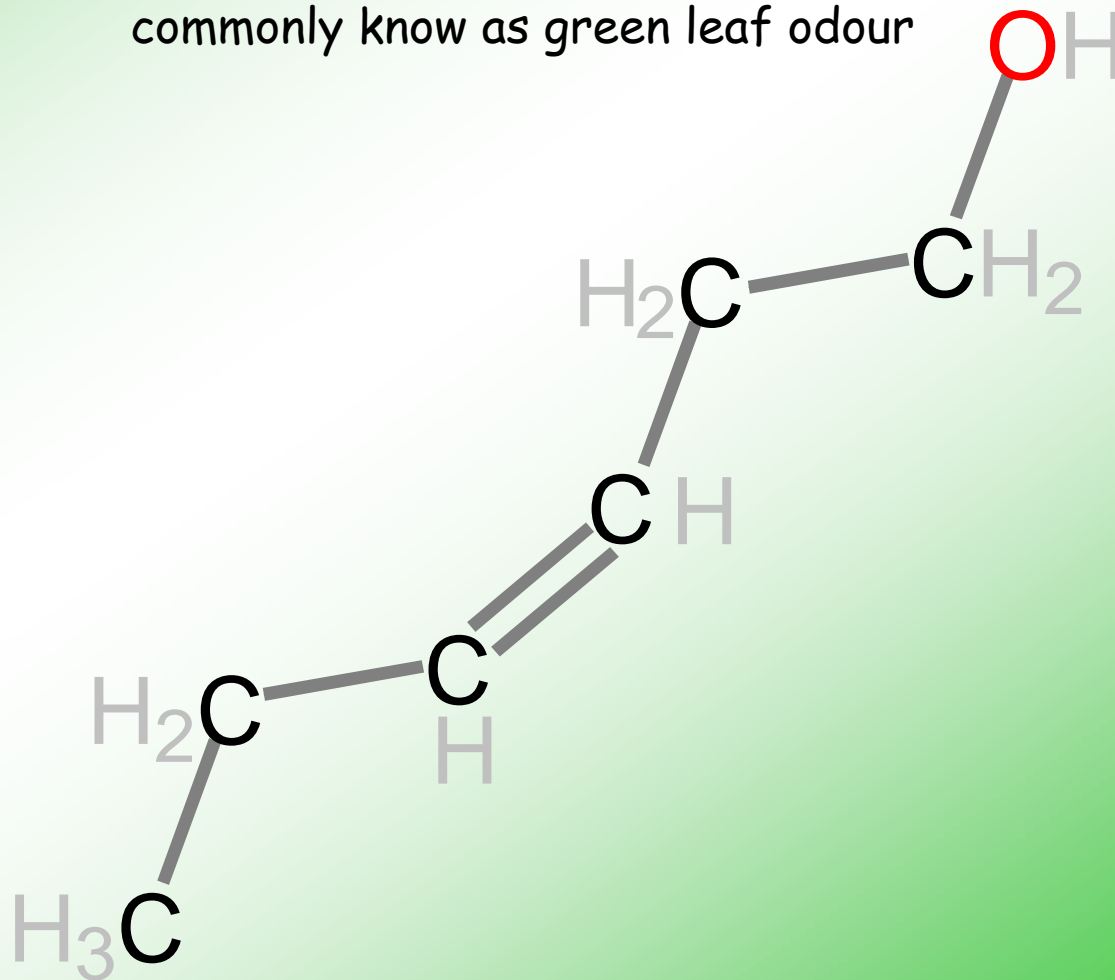
5 — short grey single bonds

2 == long grey double bonds



3-Hexenol

The smell of freshly cut grass
commonly known as green leaf odour

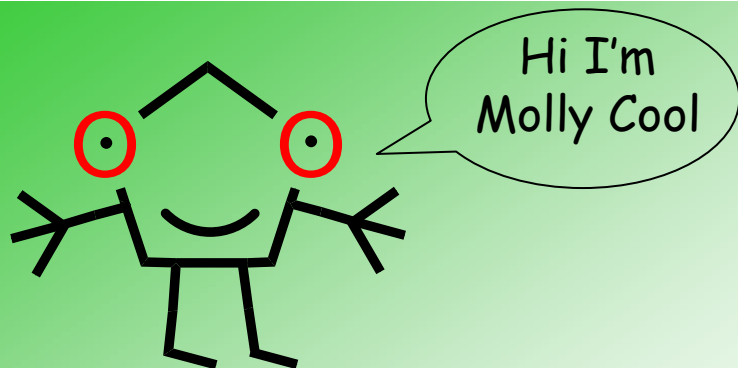


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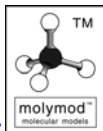


Histamine

The compound produced in excess by the body during an allergic reaction

What you will need:

- | | | |
|---|----|-------------------------|
| 5 | C | Carbon |
| 1 | N | Nitrogen dark blue |
| 2 | N | Nitrogen light blue |
| 9 | H | Hydrogen (White) |
| 6 | — | short grey single bonds |
| 4 | == | long grey double bonds |

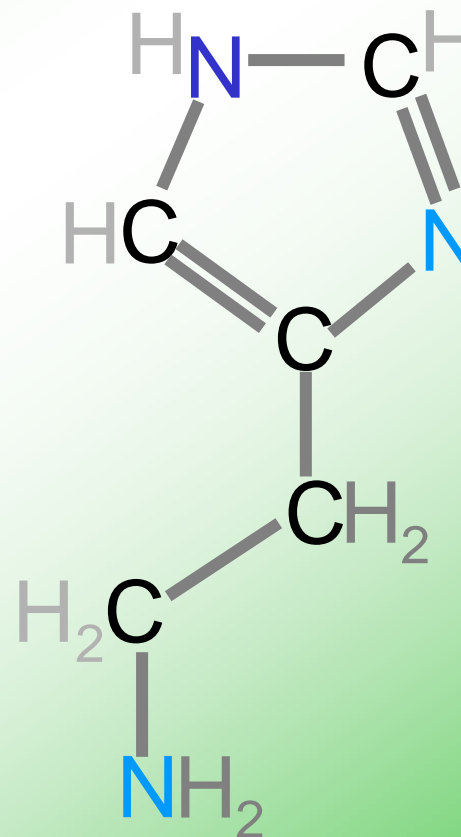


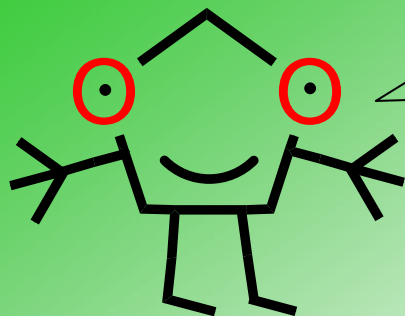
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Hi I'm
Molly Cool

Isoamyl Acetate

The sweet smell found in fruit and confectionary

What you will need:

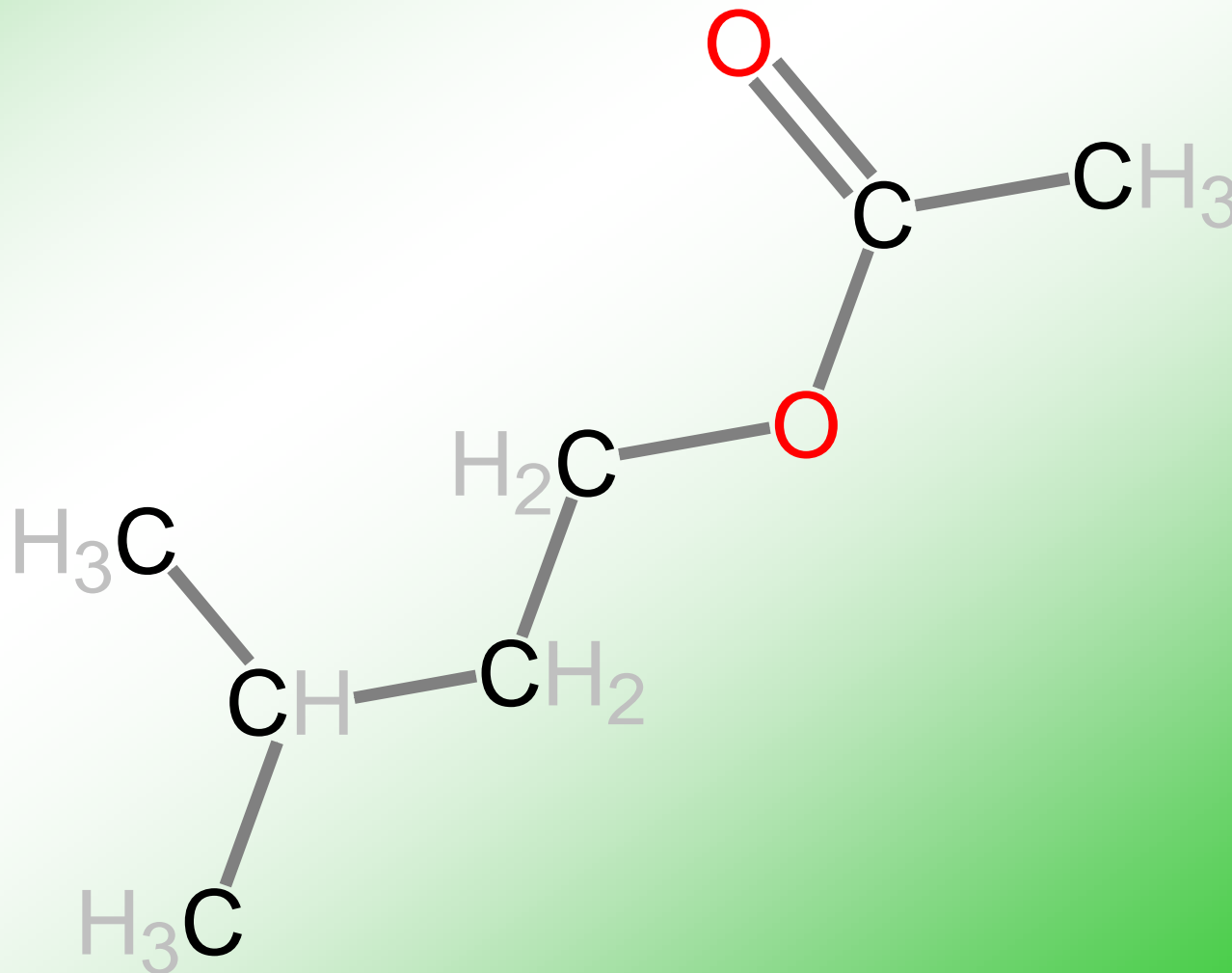
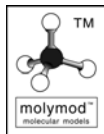
7 C Carbon

2 O Oxygen

14 H Hydrogen (White)

7 — short grey single bonds

2 == long grey double bonds



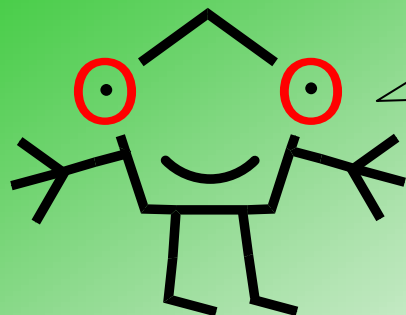
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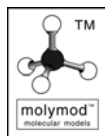
What you will need:

12 C Carbon

11 O Oxygen

22 H Hydrogen (White)

24 — short grey single bonds



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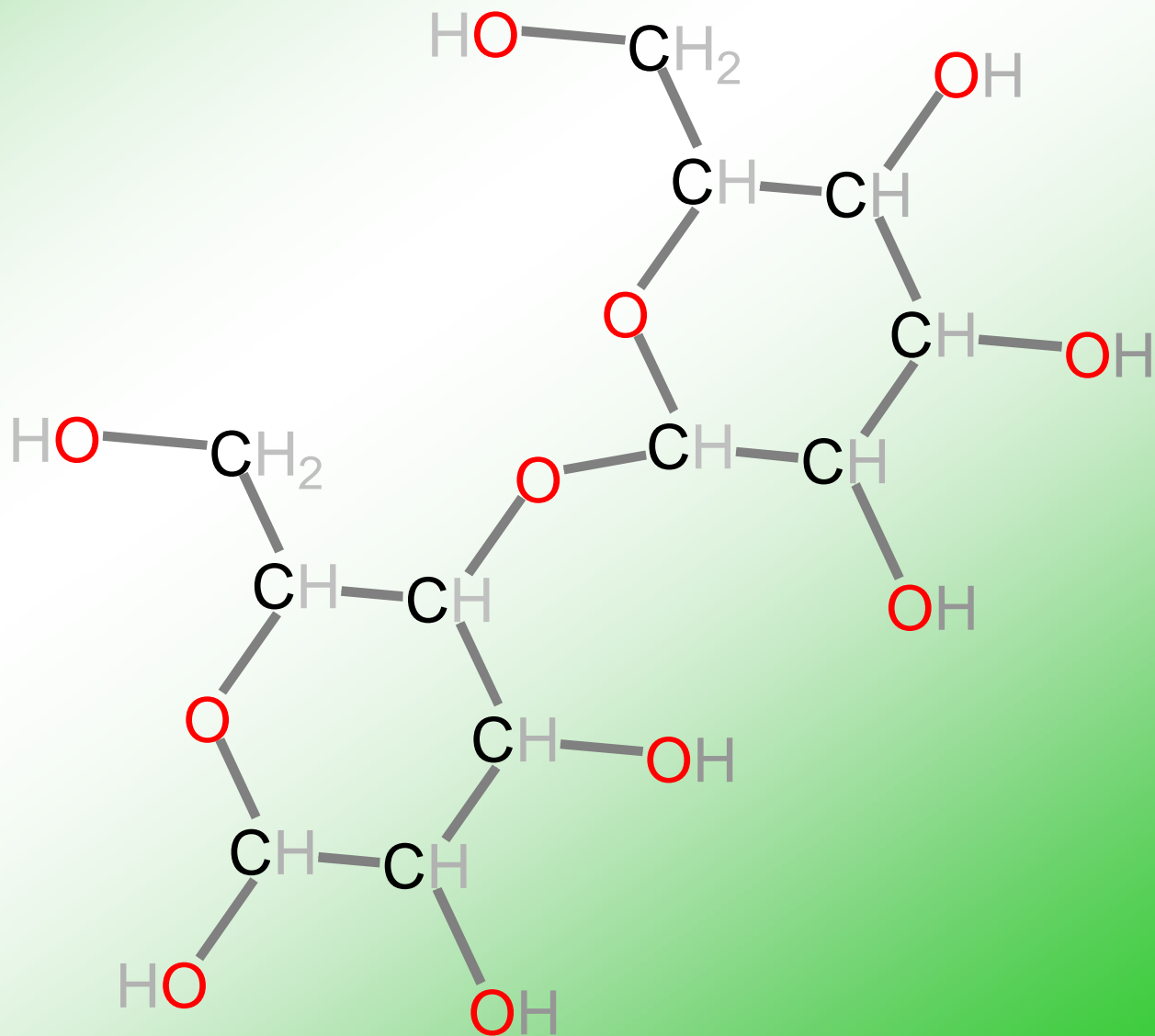
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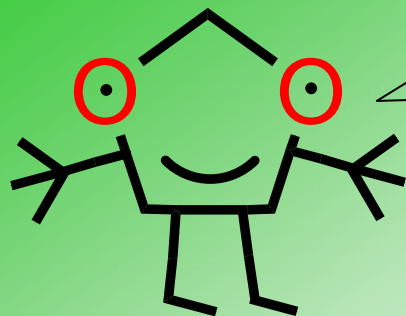
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Lactose

A sugar in milk





Hi I'm
Molly Cool

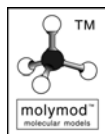
What you will need:

10 C Carbon

1 O Oxygen

20 H Hydrogen (White)

11 — short grey single bonds



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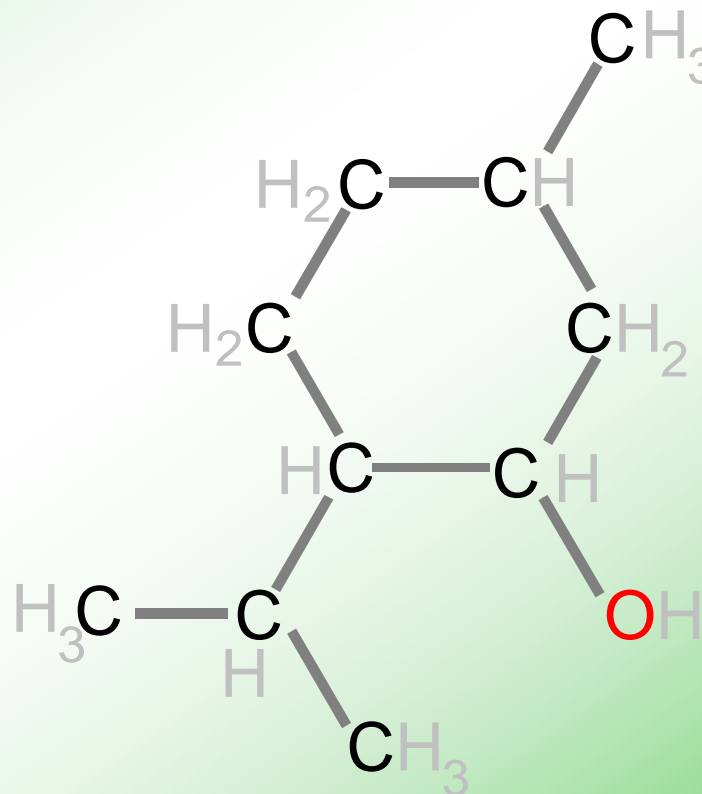
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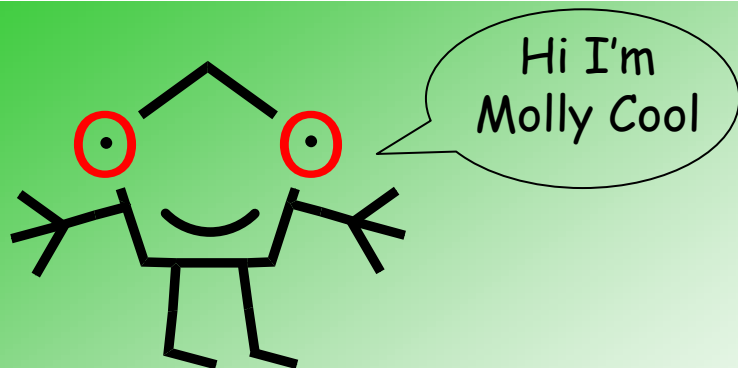
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Menthol

The odour and taste of mint used
in sweets and cough medicines





Nicotine

The addictive poison in tobacco

What you will need:

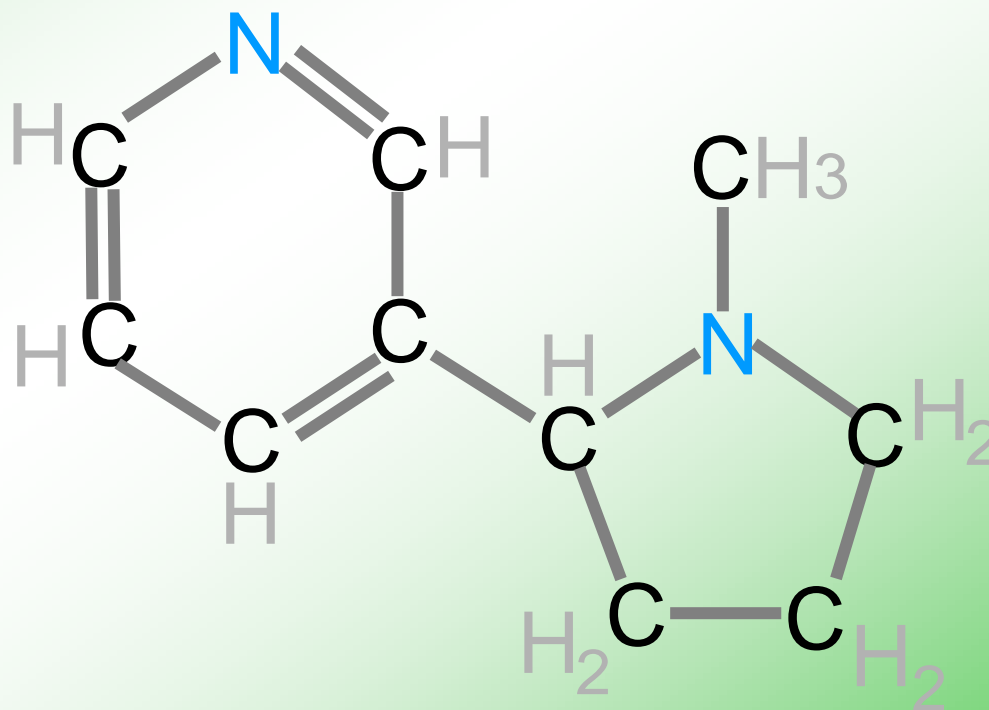
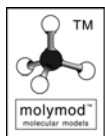
10 C Carbon

2 N Nitrogen light blue

14 H Hydrogen (White)

10 — short grey single bonds

6 == long grey double bonds

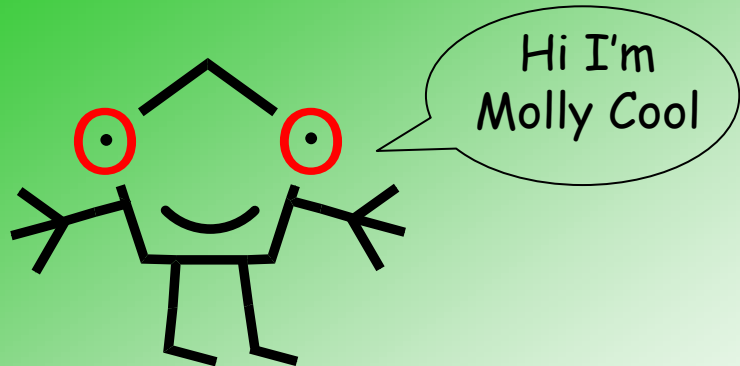


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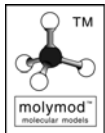
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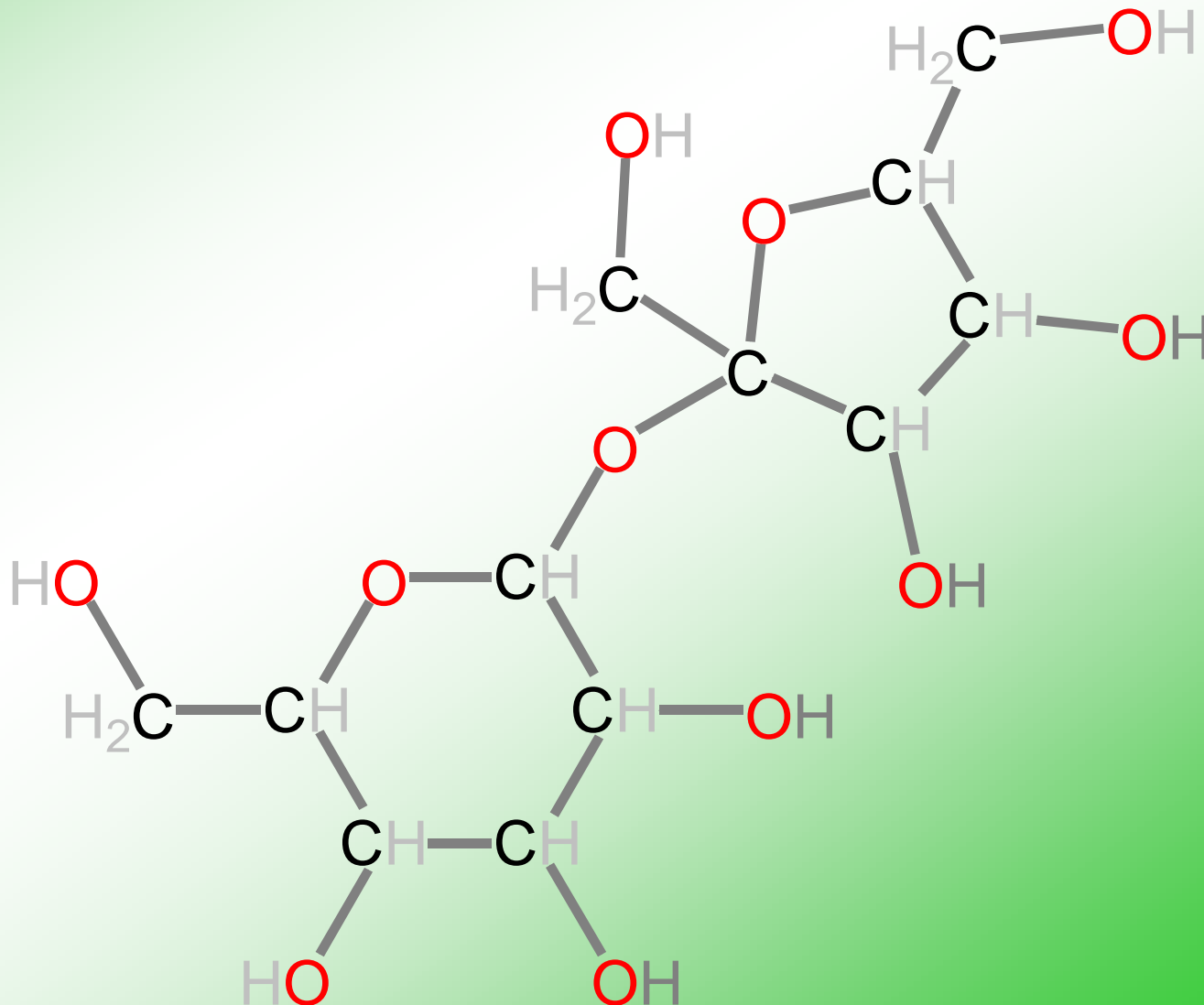


- What you will need:
- 12 C Carbon
 - 11 O Oxygen
 - 22 H Hydrogen (White)
 - 24 — short grey single bonds



Sucrose

Sugar to sweeten your cup of tea

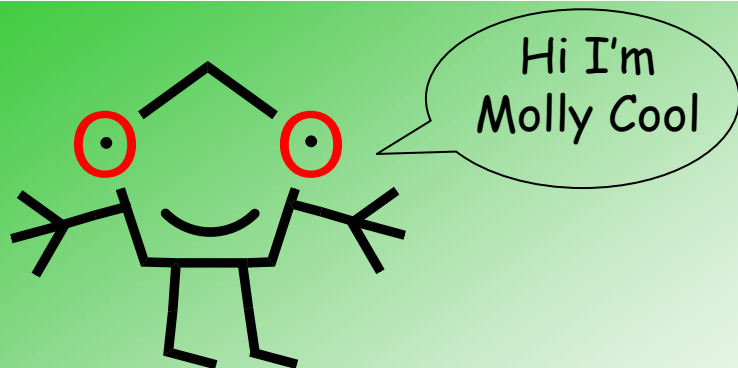


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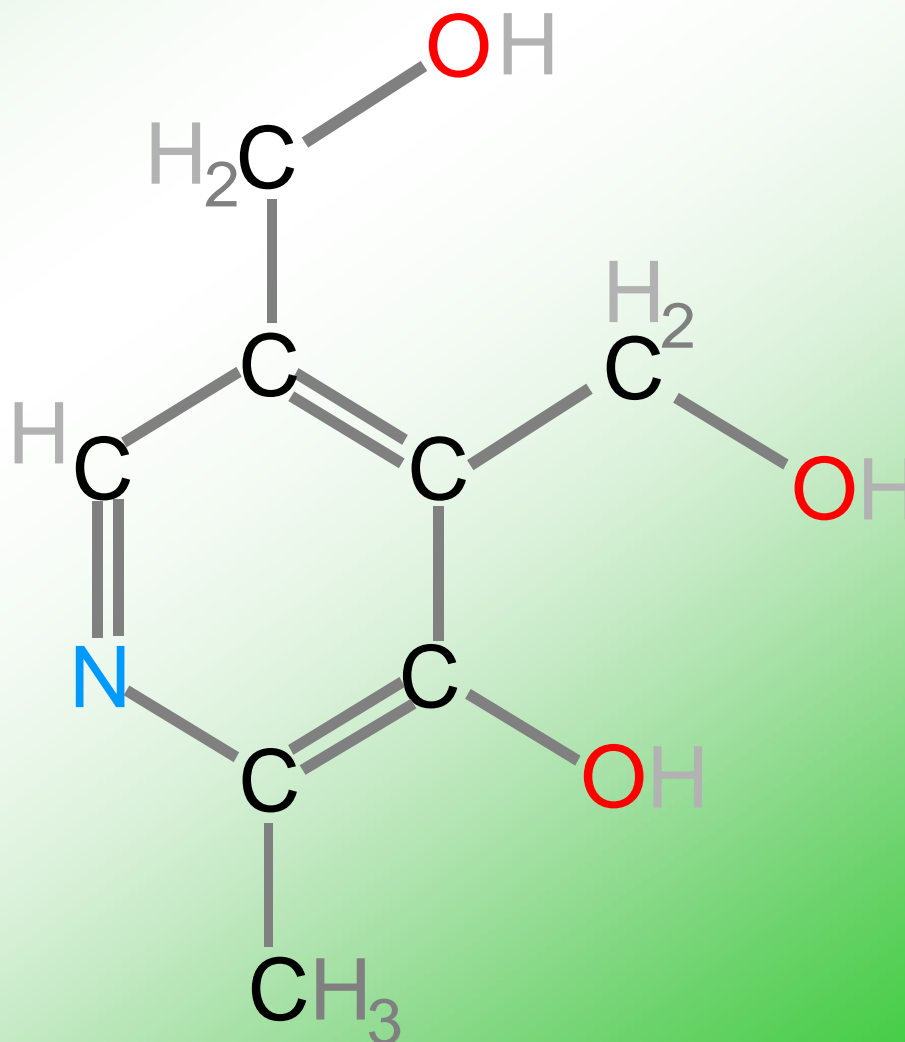
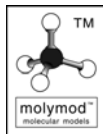


Vitamin B₆

A lack of this vitamin makes you irritable, sleepy and over-emotional

What you will need:

- | | | |
|----|---|-------------------------|
| 8 | C | Carbon |
| 3 | O | Oxygen |
| 1 | N | Nitrogen light blue |
| 11 | H | Hydrogen (White) |
| 9 | — | short grey single bonds |
| 6 | = | long grey double bonds |

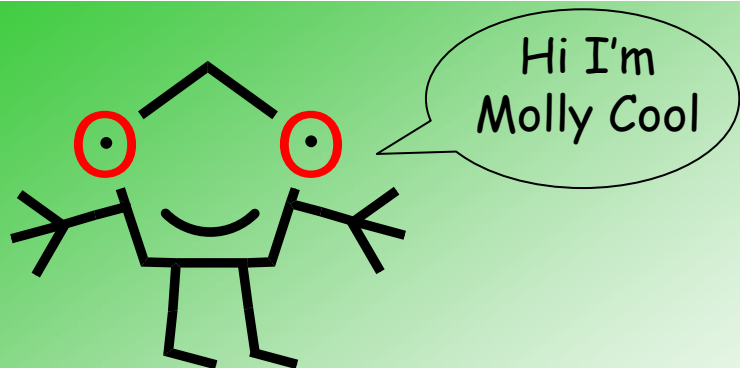


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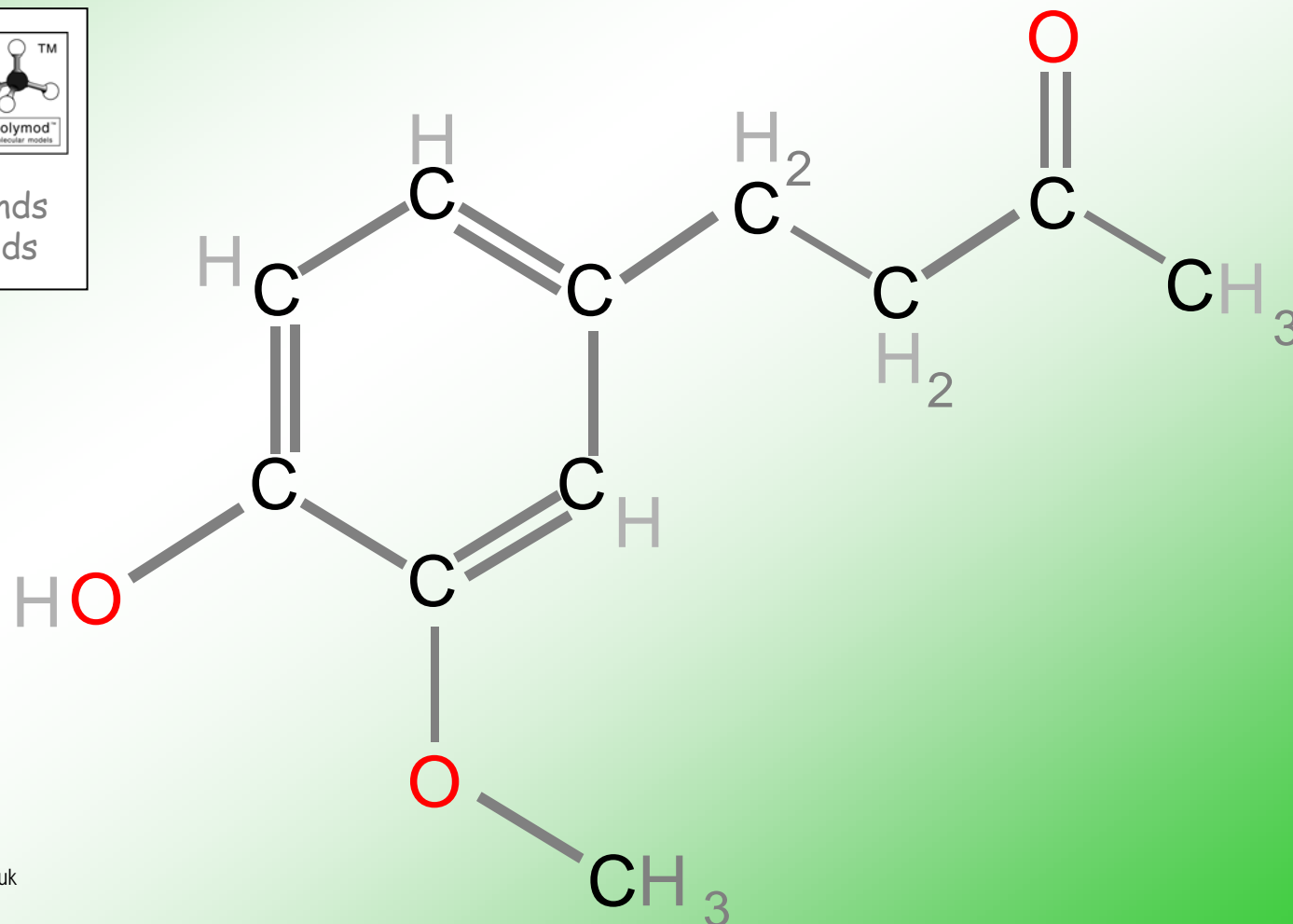
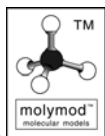


Zingerone

The spicy hot taster that is found in ginger

What you will need:

- | | | |
|----|----|-------------------------|
| 11 | C | Carbon |
| 3 | O | Oxygen |
| 14 | H | Hydrogen (White) |
| 10 | — | short grey single bonds |
| 8 | == | long grey double bonds |

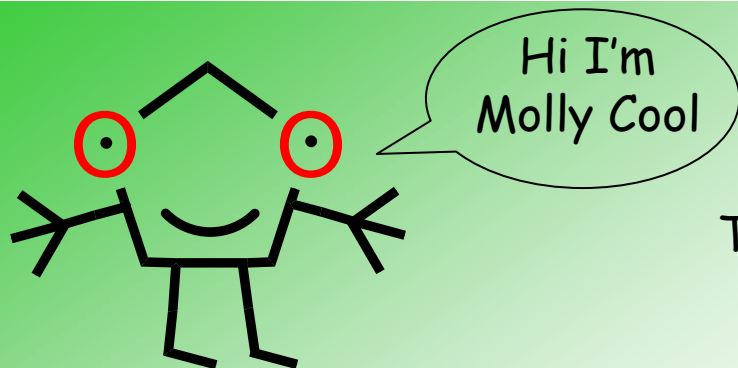


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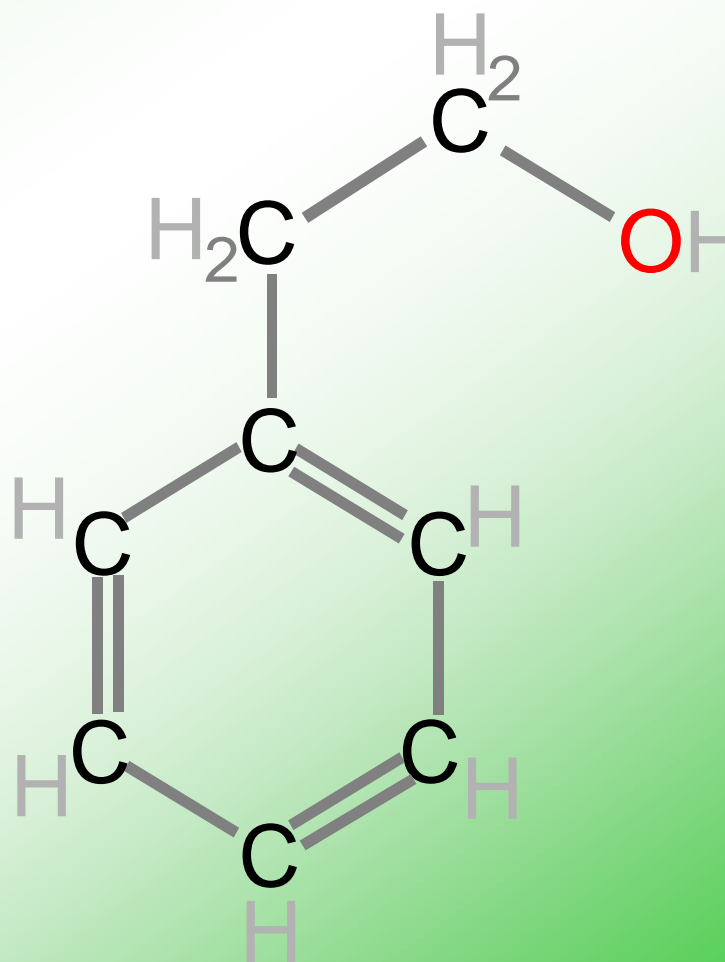
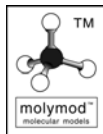


Phenylethanol

This antibacterial agent has the smell of roses. It is used in the manufacture of perfume and soaps

What you will need:

8	C	Carbon
1	O	Oxygen
11	H	Hydrogen (White)
6	—	short grey single bonds
6	==	long grey double bonds

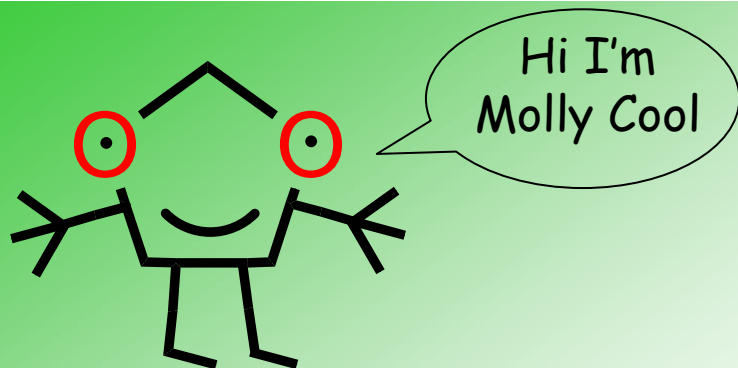


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Vitamin C

An antioxidant found in fresh fruit

What you will need:

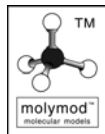
6 C Carbon

6 O Oxygen

8 H Hydrogen (White)

10 — short grey single bonds

4 == long grey double bonds

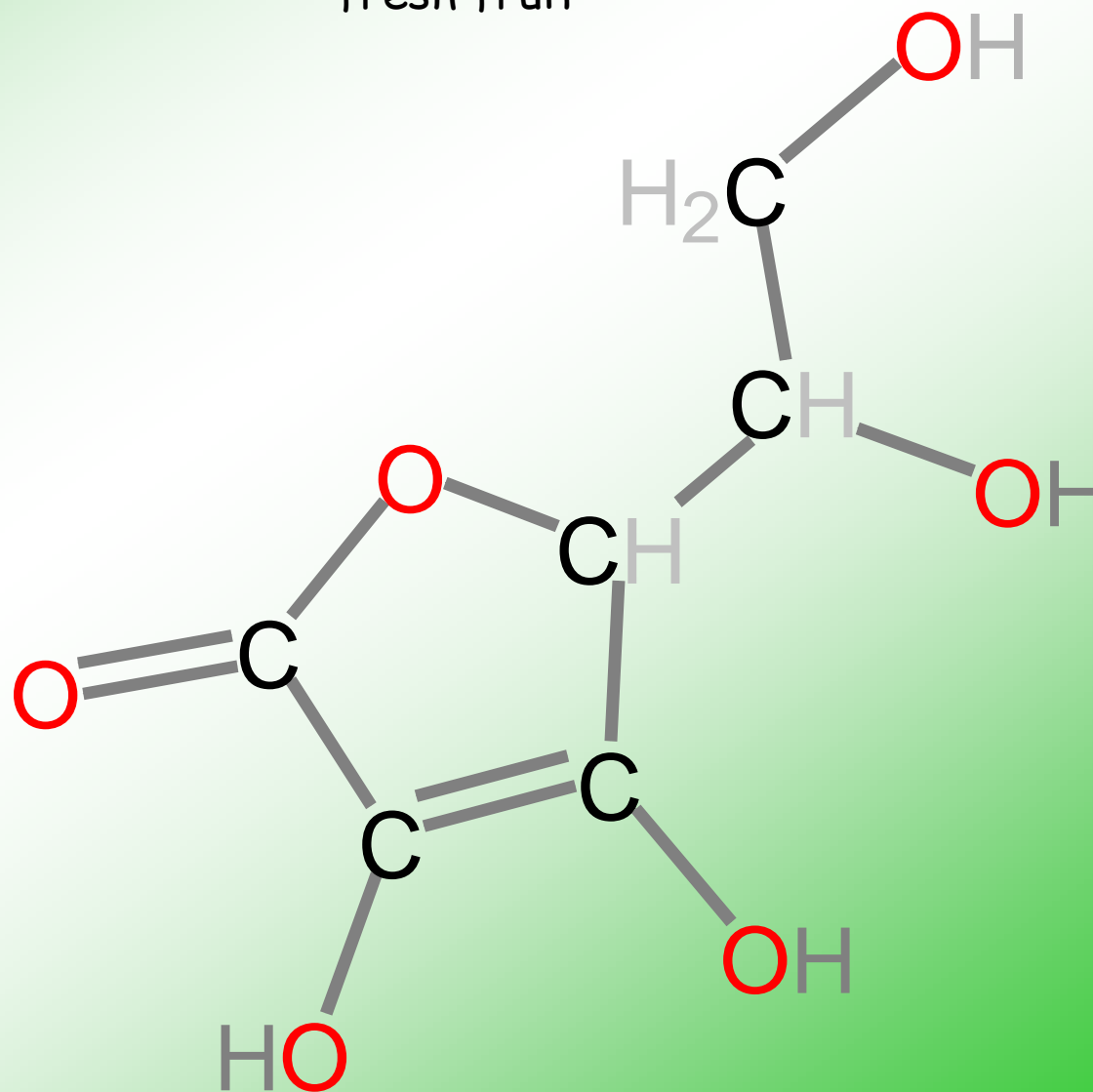


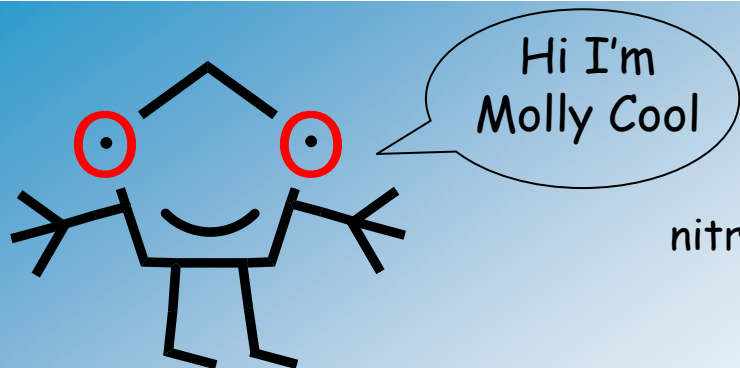
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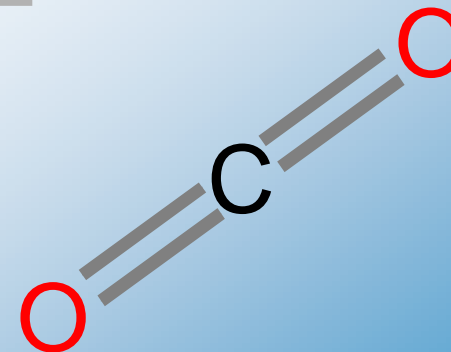
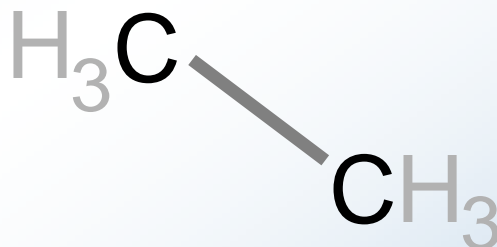
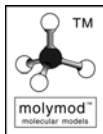


Gasses

nitrogen, oxygen, methane, water, carbon dioxide, ethane

What you will need:

- 4 C Carbon
- 2 N Nitrogen light blue
- 5 O Oxygen
- 12 H Hydrogen (White)
- 1 — short grey single bonds
- 9 == long grey double bonds

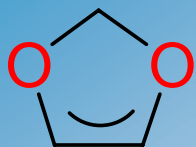


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Anthracene

An air pollutant

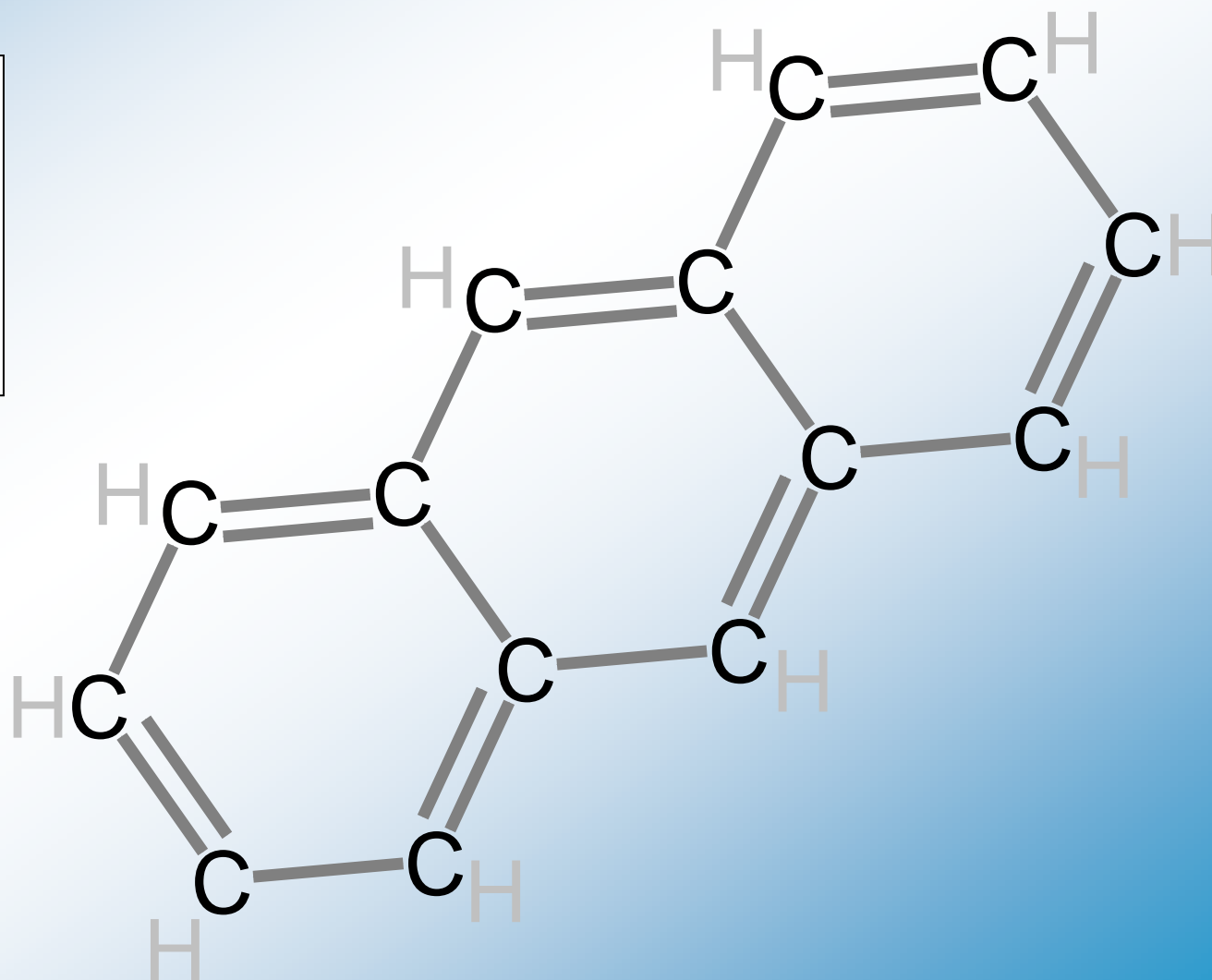
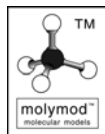
What you will need:

14 C Carbon

10 H Hydrogen (White)

9 — short grey single bonds

14 == long grey double bonds

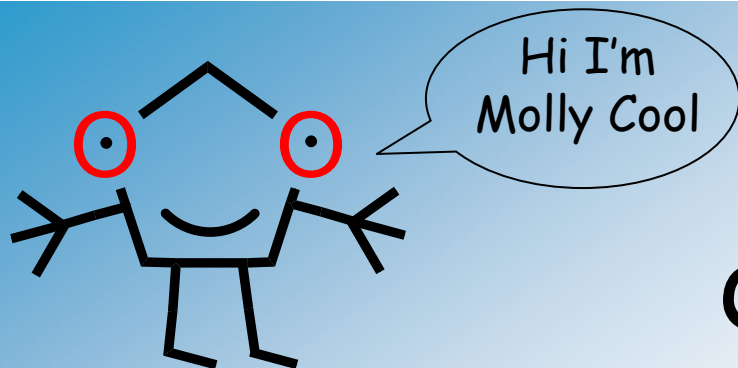


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Stoke-on-Trent
made in
ENGLAND

Designed by G R Jones, School of Chemistry & Physics,
Keele University, Staffordshire, ST5 5BG, g.r.jones@keele.ac.uk

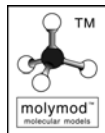


Dichloro difluoro carbon

(A CFC) A green house gas

What you will need:

- 1 C Carbon
- 2 F Fluorine
- 2 Cl Chlorine
- 4 — short grey single bonds

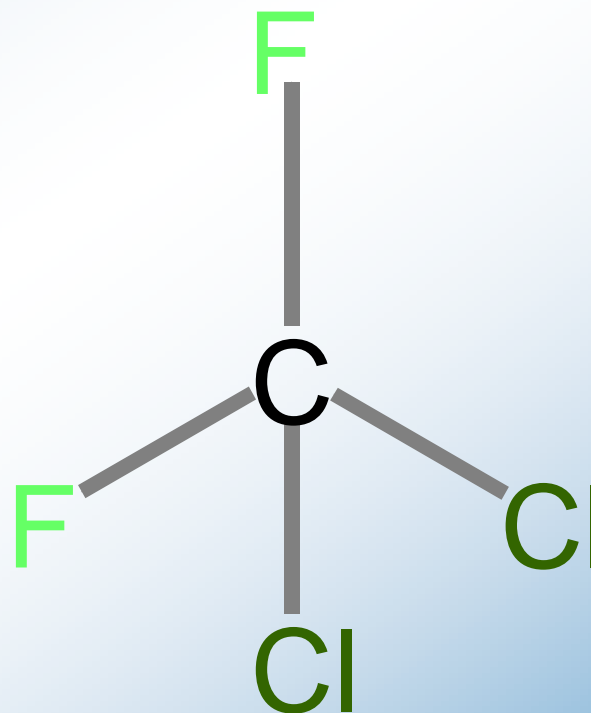


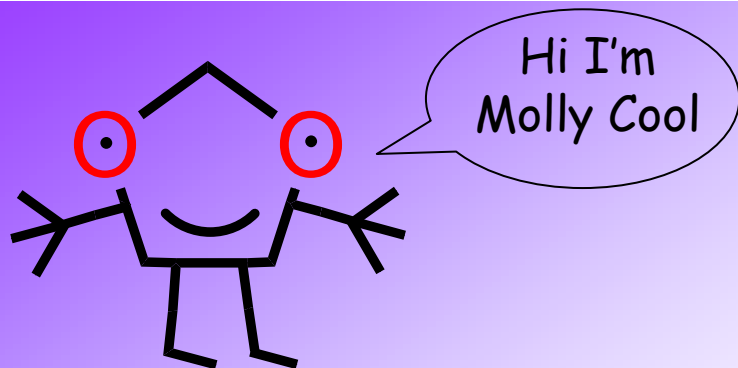
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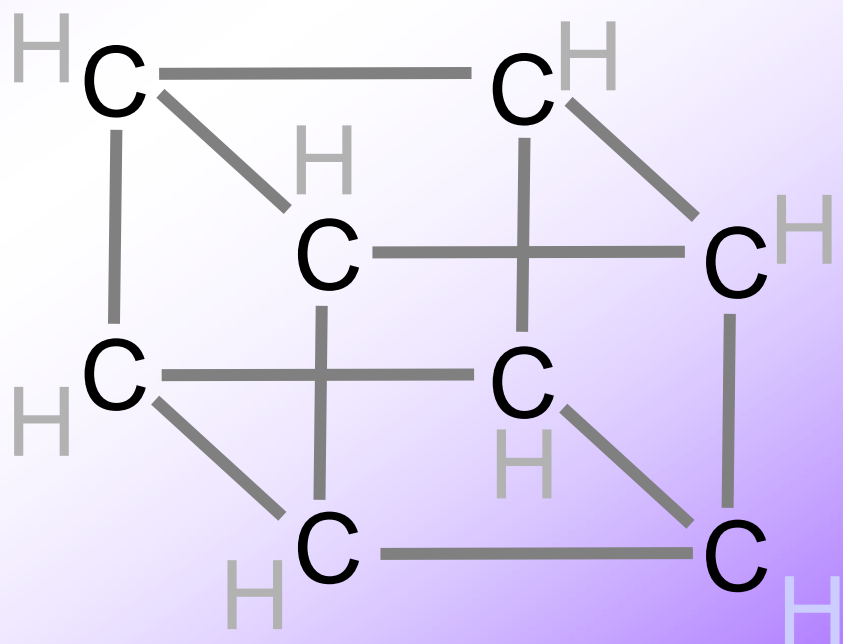
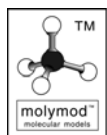


Cubane

An intriguing molecule that has been made but is not very stable

What you will need:

- 8 C Carbon
- 8 H Hydrogen (White)
- 12 — long grey bonds

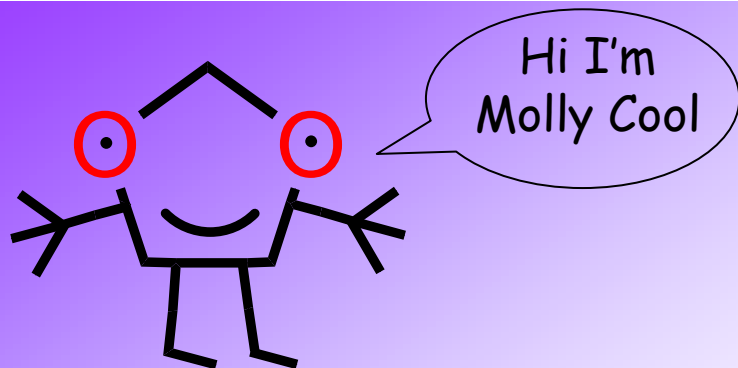


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Furfuryl Alcohol

As a polymer, it is used in lithium batteries

What you will need:

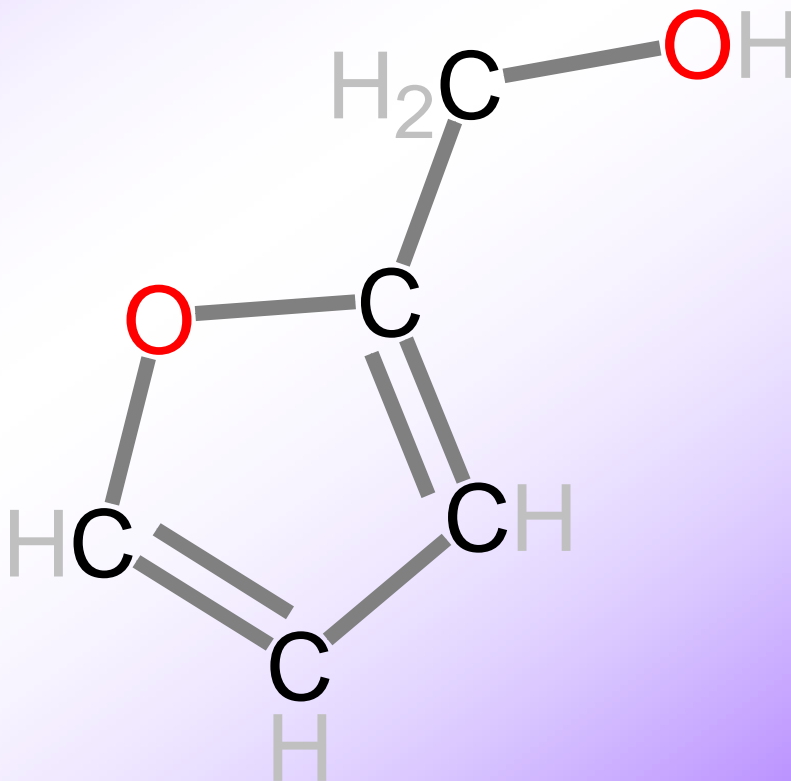
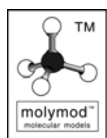
5 C Carbon

2 O Oxygen

6 H Hydrogen (White)

5 — short grey single bonds

4 == long grey double bonds



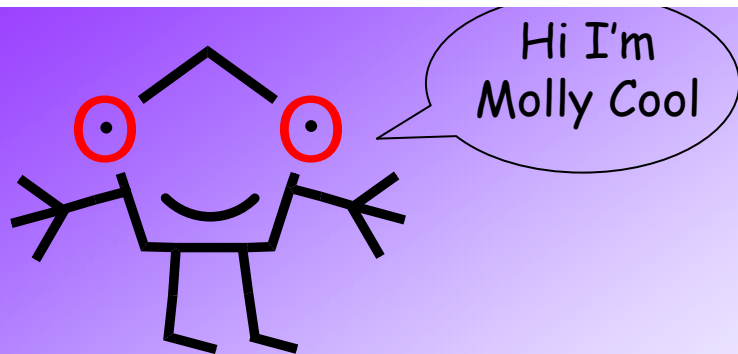
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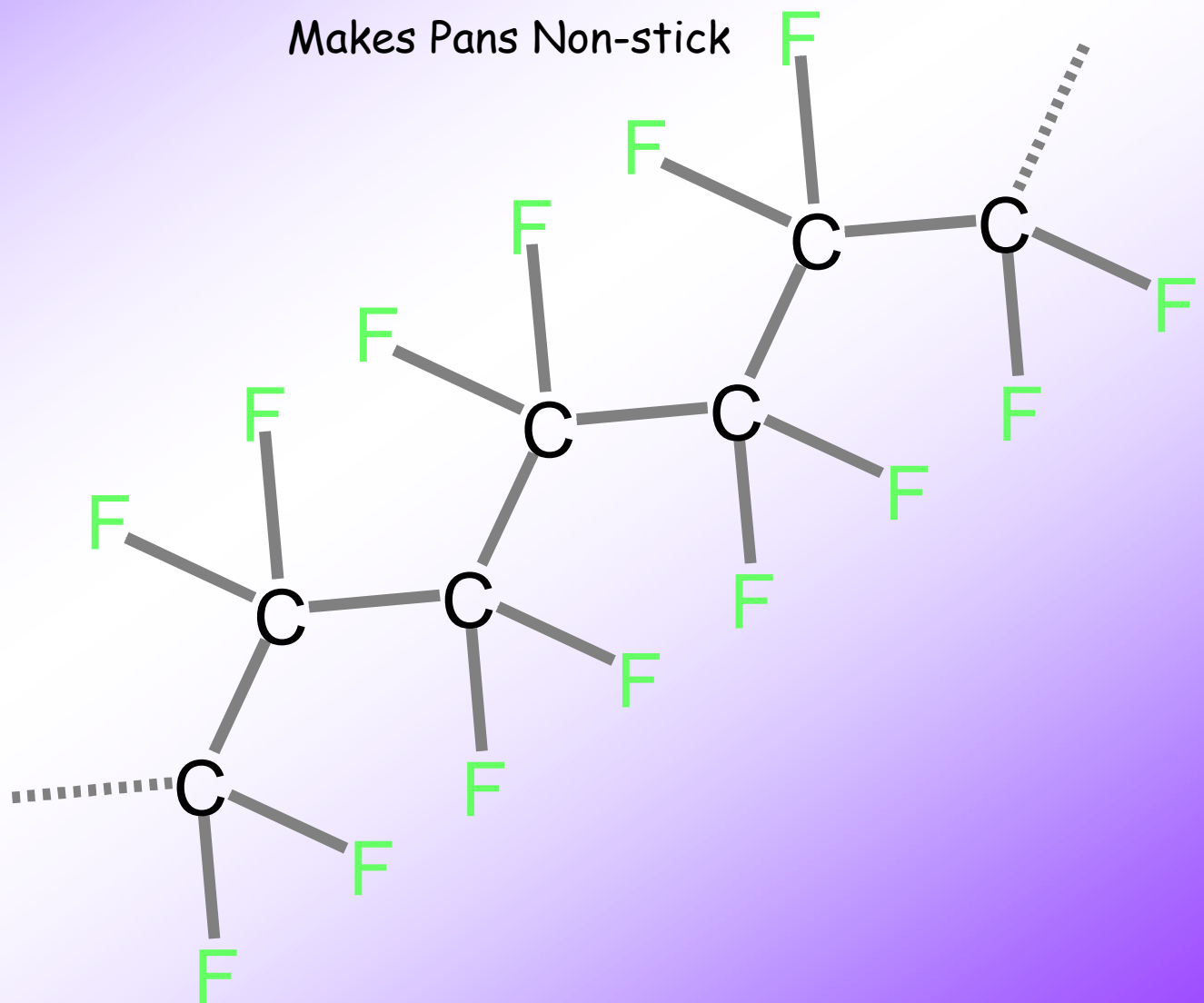
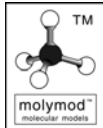
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Teflon

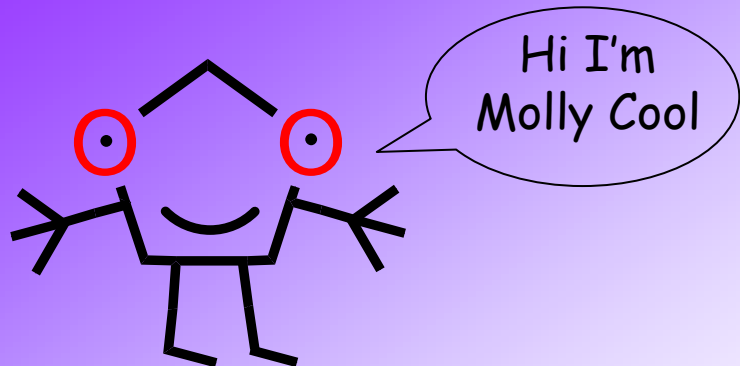
Makes Pans Non-stick

What you will need:
7 C Carbon
14 F Fluorine
22 — short grey single bonds



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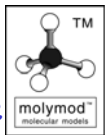
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TNT

Tri Nitro Toluene
A common explosive

- What you will need:
- 7 C Carbon
 - 3 N Nitrogen dark blue
 - 6 O Oxygen
 - 5 H Hydrogen (White)
 - 10 — short grey single bonds
 - 12 == long grey double bonds

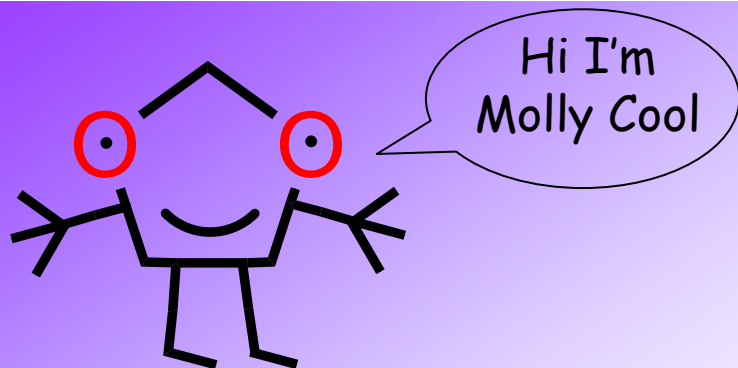


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Twistane

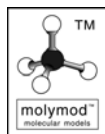
A funny molecule first made in the 1970's

What you will need:

10 C Carbon

16 H Hydrogen (White)

12 — short grey single bonds

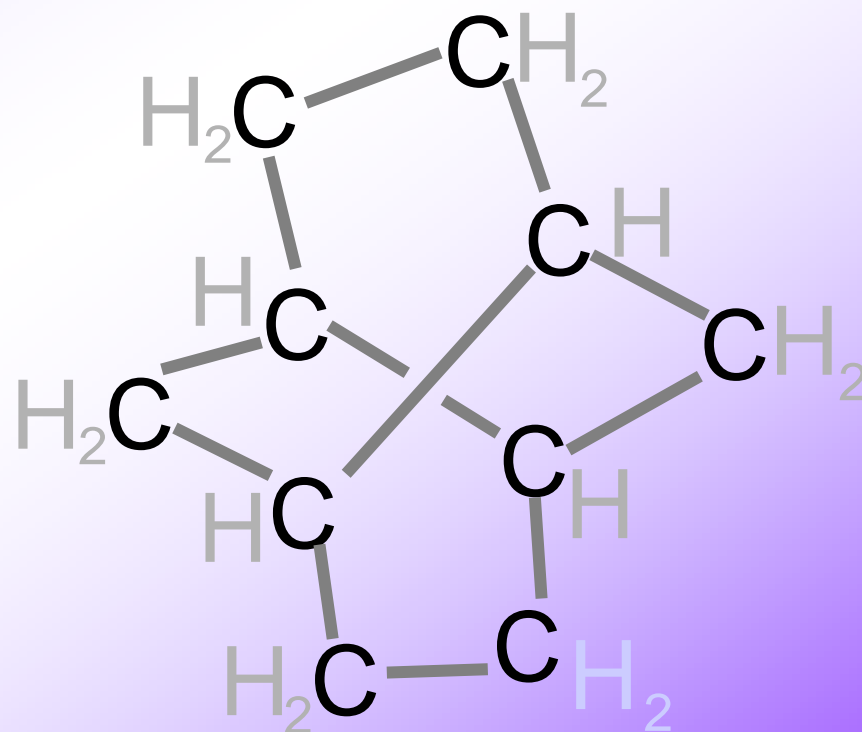


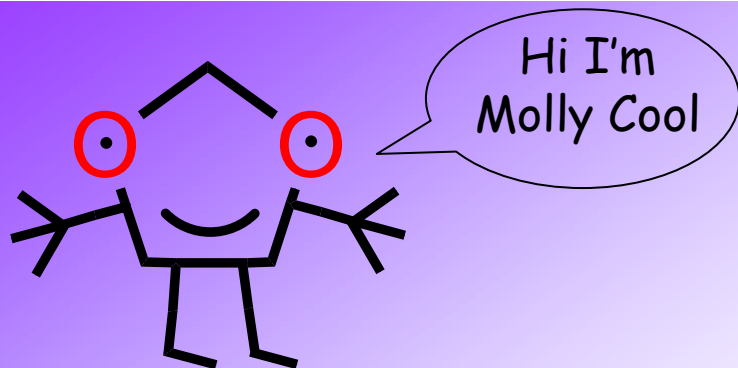
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Acetone

A useful solvent, commonly used as nail varnish remover

What you will need:

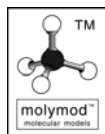
3 C Carbon

1 O Oxygen

6 H Hydrogen (White)

2 — short grey single bonds

2 == long grey double bonds

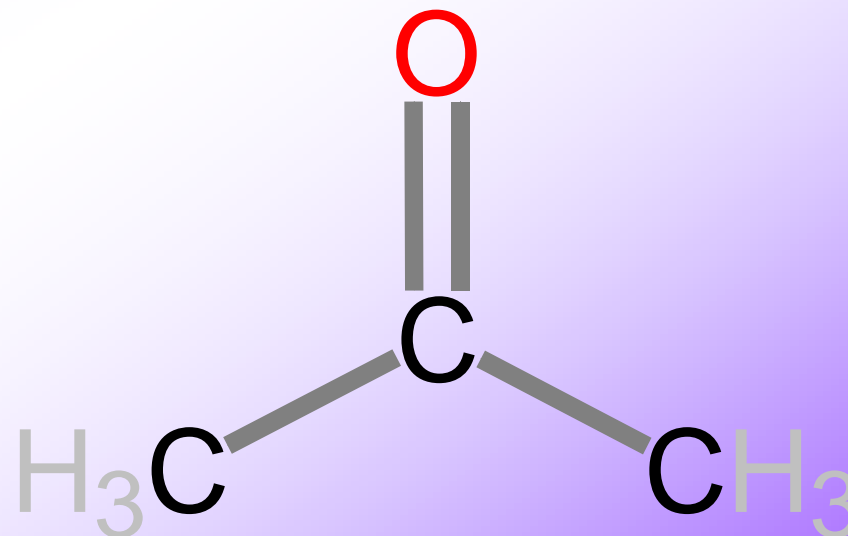


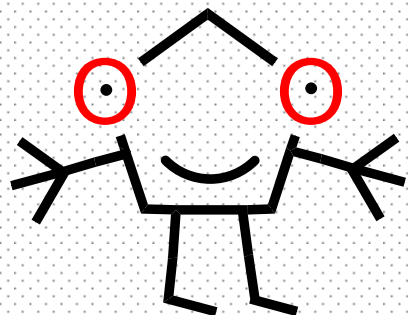
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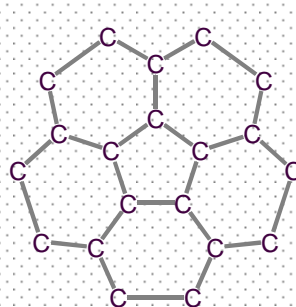
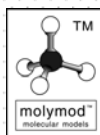


Buckminster Fullerene

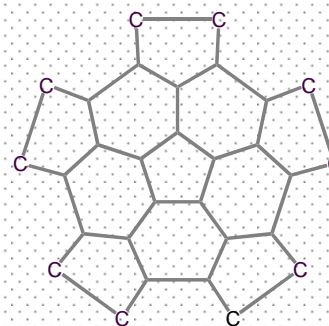
One of the three forms of atomic carbon. Only discovered in the 1980's C60 as it known has started a whole new area of carbon chemistry. It has an intense deep purple colour.

What you will need:

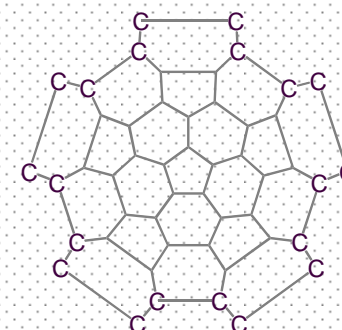
60 C Carbon 3 hole
100 short grey single bonds



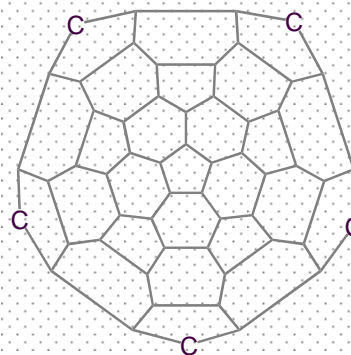
20 carbons



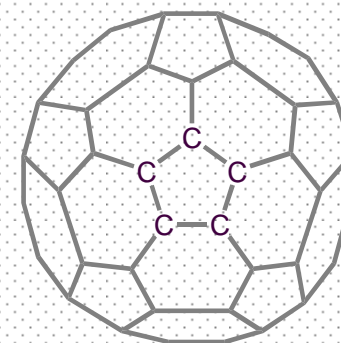
30 carbons



50 carbons



55 carbons



60 carbons



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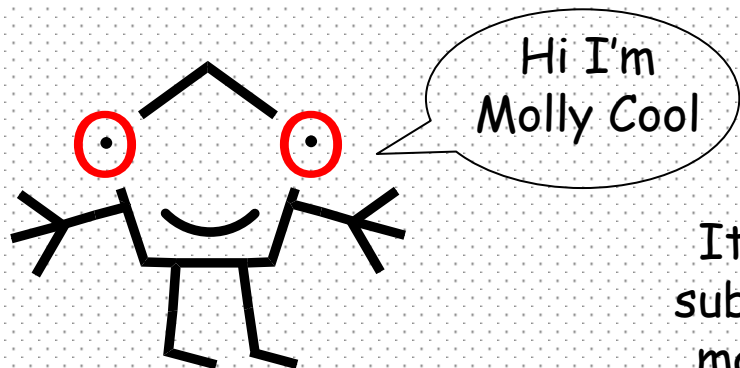
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Tips

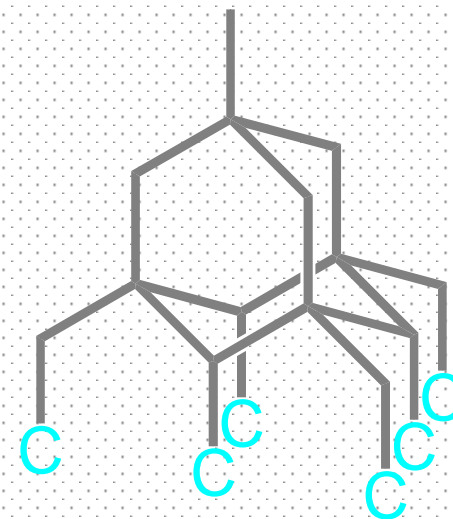
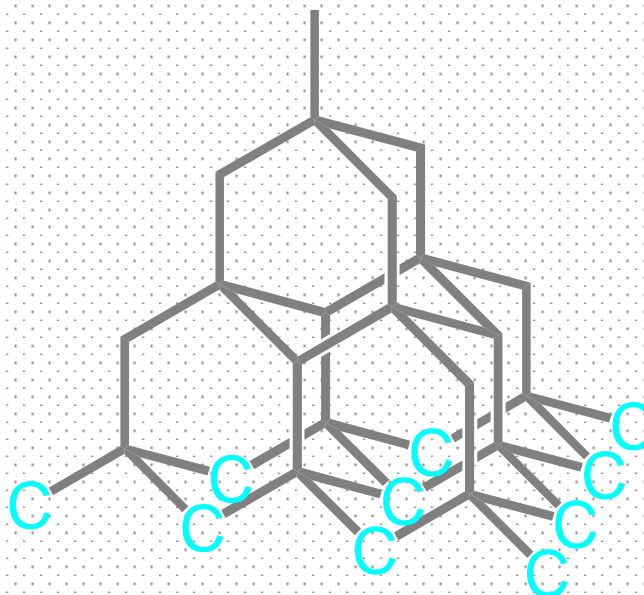
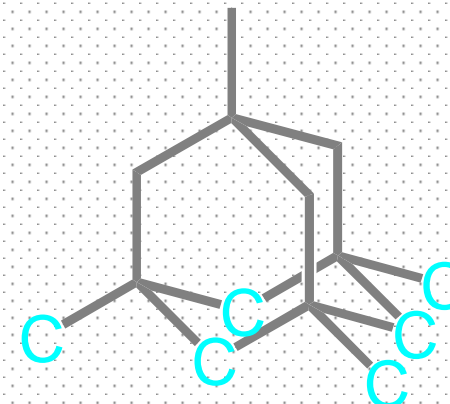
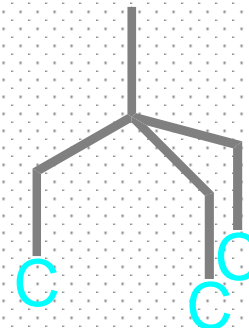
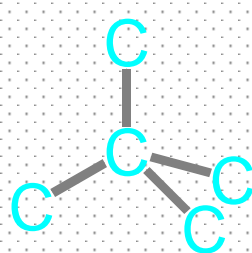
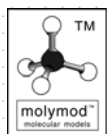
1. Every ring of 5 is surrounded by five rings of six
2. The shape naturally curves to make the ball
3. It is exactly the same shape as the hexagons and pentagons that make up a football



Diamond

One of the three forms of atomic carbon
Its compact structure makes diamond the hardest substance known. Its brilliant appearance and rarity make it one of the most precious substances on earth

What you will need:
30 Carbon 4 hole
40 short grey single bonds

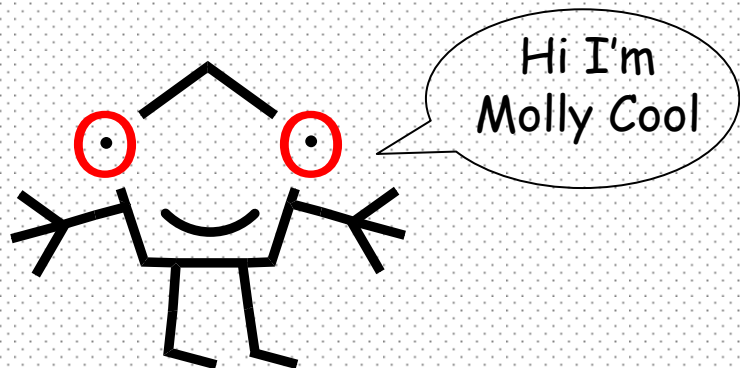


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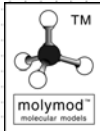
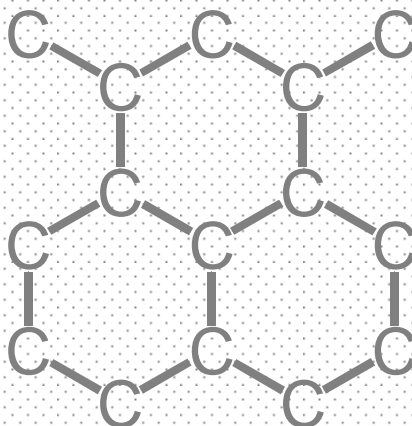


Graphite

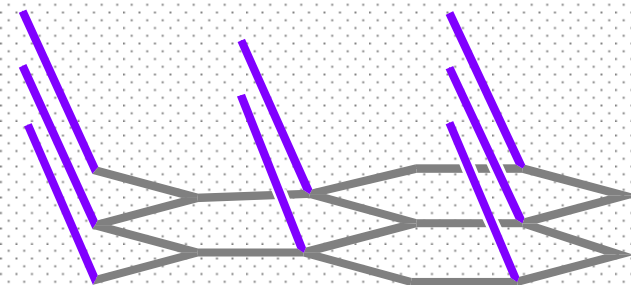
One of the three forms of atomic carbon
 Grey in colour its unique layered structure makes
 it a good lubricant and it is also used in pencils

What you will need:

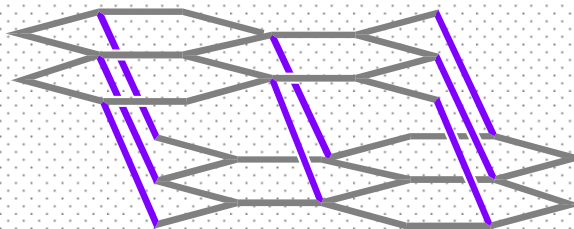
- 45 Carbon 5 hole
- 51 short grey single bonds
- 16 long purple single bonds

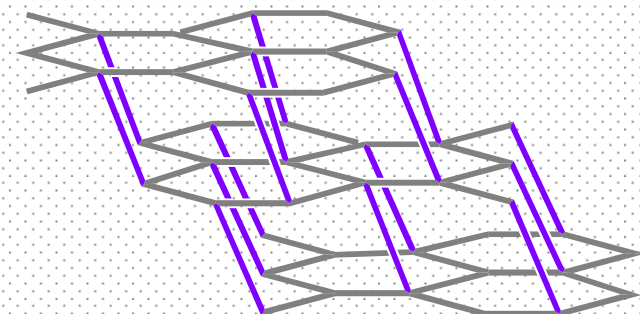
Make 3 of these



Add purple bonds



Add 2nd layer



Add bonds and 3rd layer



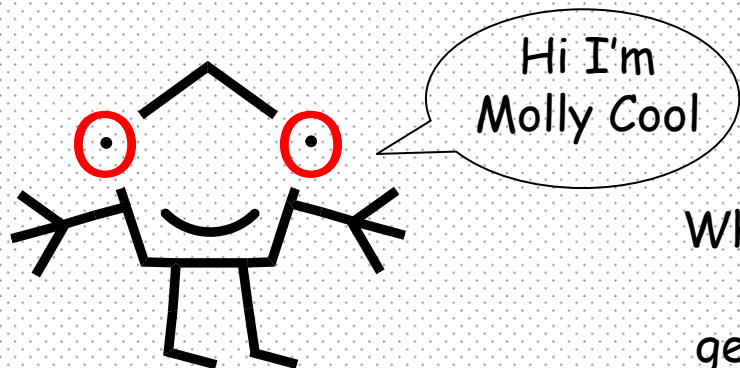
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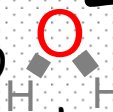
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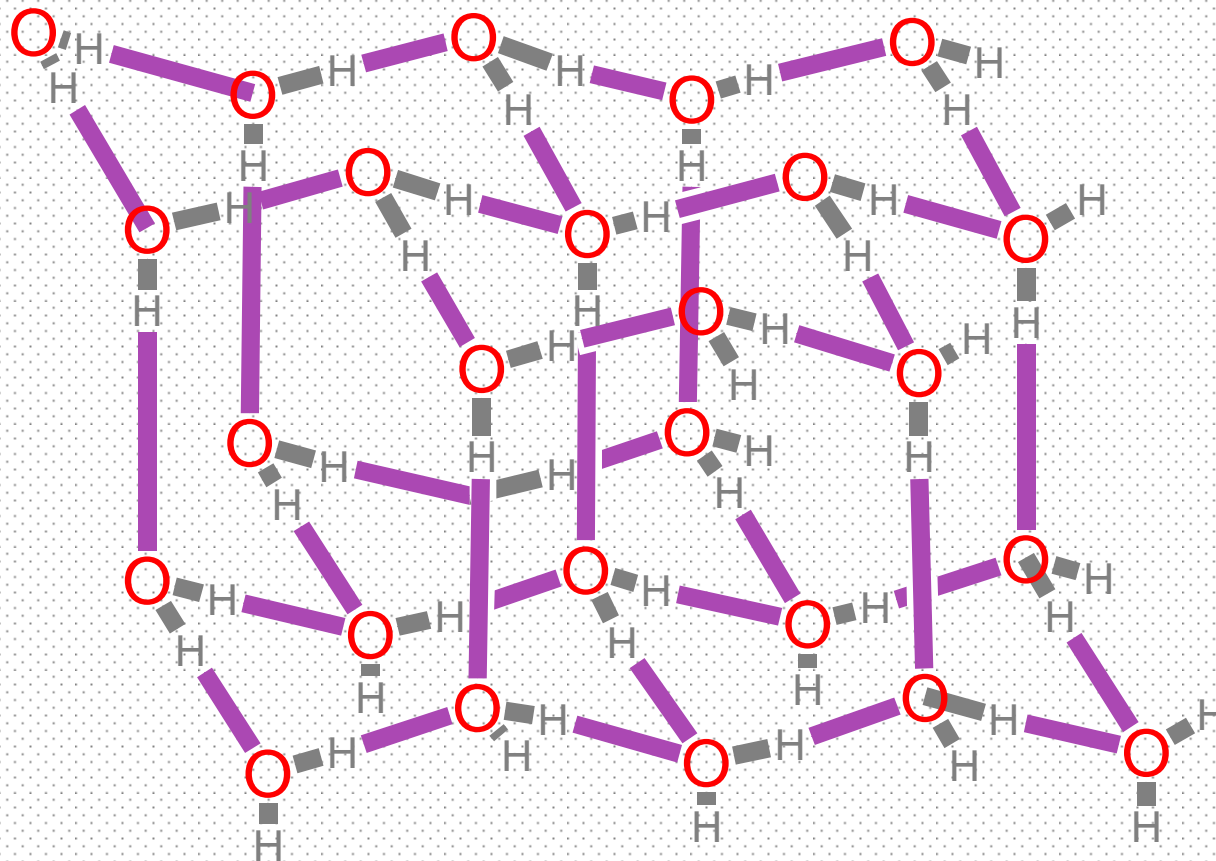
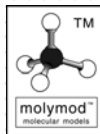


ICE

When water, H_2O  freezes it forms crystals of ice where the water molecules are arranged in geometric forms held together by hydrogen bonds

What you will need:

- 26 O Oxygen 4 hole
- 52 H Hydrogen 2 hole
- 52 clear linkers
- 37 purple hydrogen bonds
- short grey single bonds

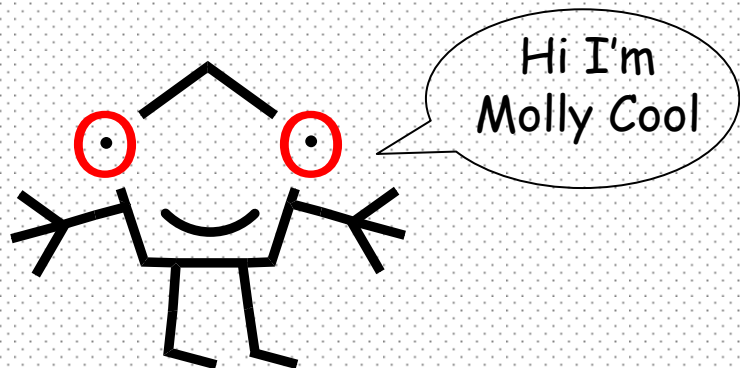


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Sodium chloride

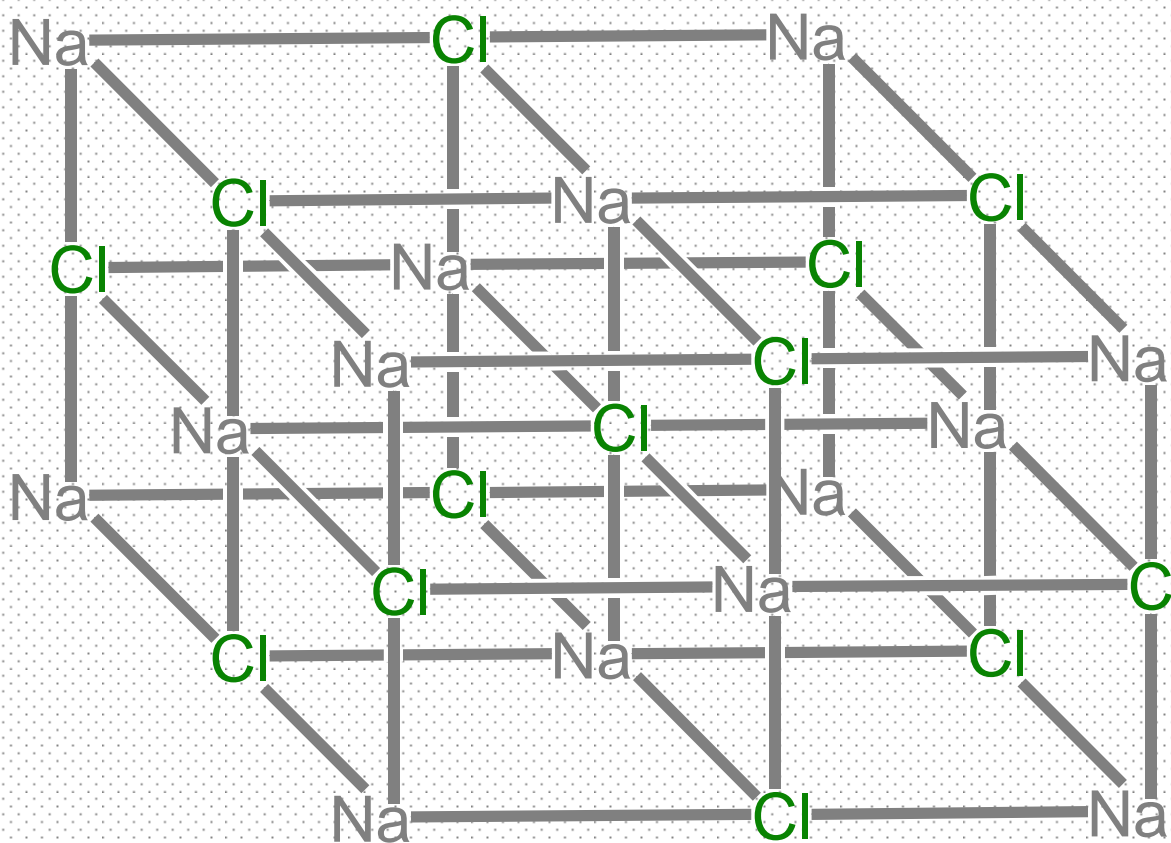
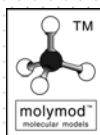
Common salt that is used in cooking

What you will need:

14 Na Sodium

14 Cl Chlorine

30 short grey single bonds

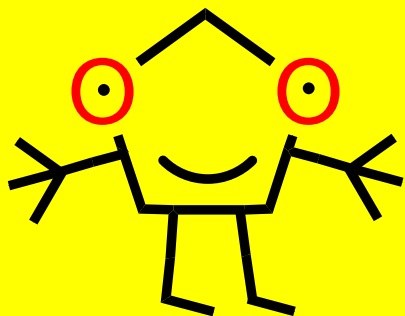


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ATTENTION!

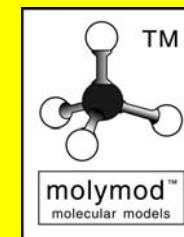
PLEASE

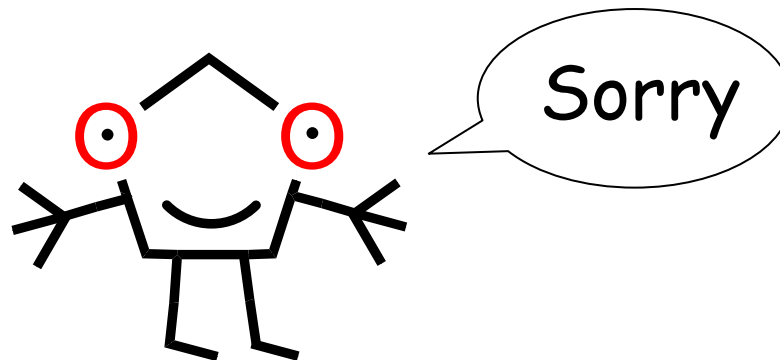
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AFTER YOUR PHOTO

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Contains small parts
Choking hazard

