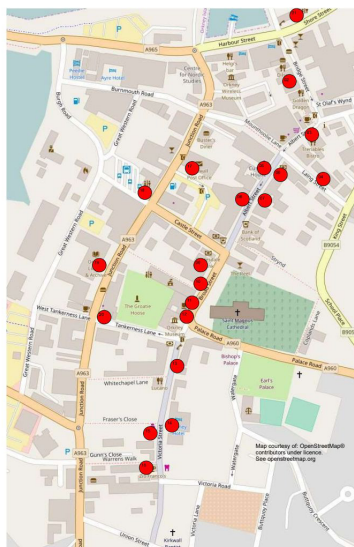


Competition details

There are 20 different molecules to be found in businesses around Kirkwall - how many can you spot? Each molecule is associated with the type of business in which it is on display. To help you, we've given approximate locations (red dots) of the molecules on the map below.



Map courtesy of: ©OpenStreetMap contributors under licence see openstreetmap.org

Win your own Molecules Model kit

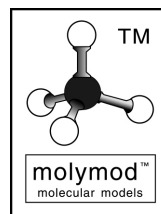
The first correct entry out of the hat on 11 September will win a Molymod molecule kit to allow you to build your own molecular models. This molecule kit was kindly donated by Philip Spiring of Molymod.

Entry forms must be returned to the Tourist Information Office before noon on Wednesday 11 September.

List of businesses taking part:

Begg Shoes	Orkney Ferries
Blue Joe's	Orkney Library and Archive
Cycle Orkney	Orkney Television Enterprise
Home Collections	OrkneyTech Ltd
Judith Glue	Solveig Hair & Beauty
Kirkness & Gorie	Sutherlands Pharmacy
KT Sports	The Old Library
Mind-On	The Orkney Hotel
No 25	Visit Scotland TIC
Orcadian Bookshop	William Shearer

Supported by the following sponsors:

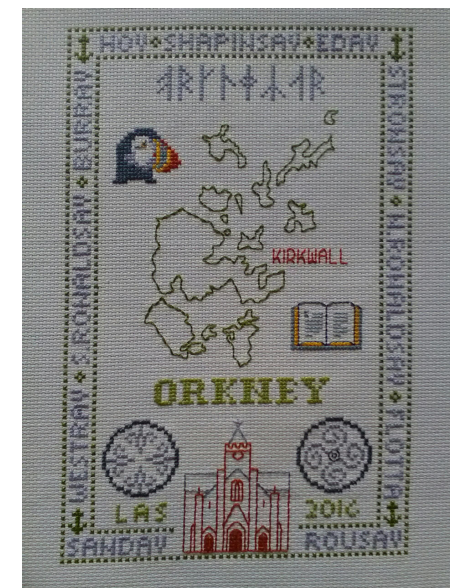


www.molymod.com



Kirkwall Molecule Hunt Competition 5 – 11 September 2024

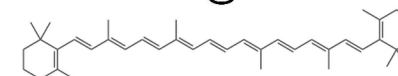
In association with Orkney International Science Festival



Cross stitch provided by Lorna Smith

Brought to you by:

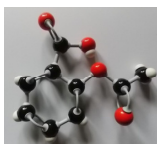
Science@Cwaben



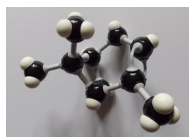
science@cwaben.org.uk
Tel: 07753 383754

Can you find all of these molecules?

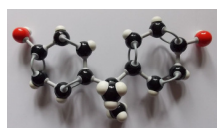
The businesses where they are located are listed overleaf.



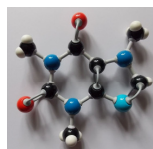
↑ 1 Acetyl Salicylic Acid (Aspirin)
Pharmaceutical



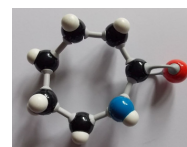
↑ 2 Alpha Pinene
Used in varnish



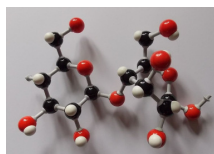
↑ 3 Bisphenol A
Base unit of polycarbonate



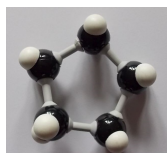
↑ 4 Caffeine
Found in tea and coffee



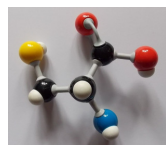
↑ 5 Caprolactam
Basis of Nylon 6



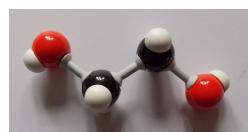
↑ 6 Cellulose
Basis of paper



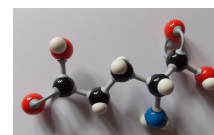
↑ 7 Cyclopentane
Used in refrigerators



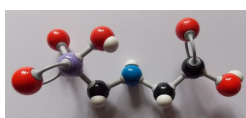
↑ 8 Cysteine
Amino acid found in wool



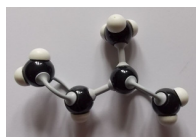
↑ 9 Ethylene Glycol
Used to make polyester



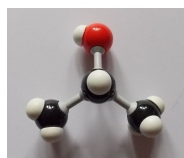
↑ 10 Glutamic Acid
Amino acid found



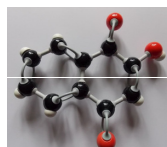
↑ 11 Glyphosate
Weedkiller



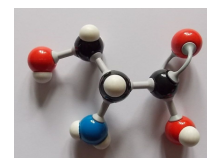
↑ 12 Isoprene
Basis of rubber



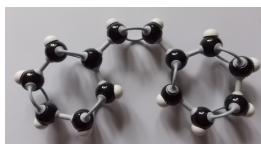
↑ 13 Isopropanol
Used to clean PCBs



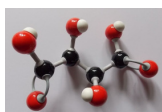
↑ 14 Lawsone
Colouring for hair or skin



↑ 15 Serine
Amino acid found in wool



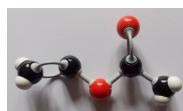
↑ 16 Stilbene
Optical brightener in paper



↑ 17 Tartaric Acid
Used in cheesemaking



↑ 18 Toluene Diisocyanate
Used to make stress balls



↑ 19 Vinyl Acetate
The basis of PVA



↑ 20 Vinyl Chloride
The basis of PVC

● Black atoms = Carbon
● Yellow atoms = Sulphur

○ White atoms = Hydrogen
● Green atoms = Chlorine

KEY TO COLOURS OF ATOMS IN MOLECULES

● Red atoms = Oxygen

● Blue atoms = Nitrogen

Answer Sheet

Give the location of each molecule:

- | | |
|---------|---------|
| 1..... | 11..... |
| 2..... | 12..... |
| 3..... | 13..... |
| 4..... | 14..... |
| 5..... | 15..... |
| 6..... | 16..... |
| 7..... | 17..... |
| 8..... | 18..... |
| 9..... | 19..... |
| 10..... | 20..... |

Please hand in your completed answer sheet to Visit Scotland before noon on Wednesday 11 September.

Your name.....

Address.....

.....

Phone

E-mail.....

Any comments about the molecule hunt?

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