



PETA KONSEP CONCEPT MAP

Perkataan Arab:
Al-kimiya
Arabic word:
Al-kimiya

berasal daripada
originated from

KIMIA CHEMISTRY

kajian tentang
study of

- Struktur jirim
Structure of matter
- Sifat jirim
Properties of matter
- Komposisi jirim
Composition of matter
- Interaksi antara jirim
Interaction between matters

Aplikasi *Application*

Kehidupan harian *Daily life*

- Makanan / *Food*
- Perubatan / *Medical*
- Pertanian / *Agriculture*
- Industri / *Industry*

Bidang kerjaya *Career fields*

- Kosmetik
Cosmetic
- Farmaseutikal
Pharmaceutical
- Bioteknologi
Biotechnology
- Nanoteknologi
Nanotechnology
- Teknologi hijau
Green technology

Kaedah Saintifik *Scientific Method*

Langkah / *Steps*

1. Membuat pemerhatian
Making observations
2. Membuat inferens
Making an inference
3. Mengenal pasti masalah
Identifying the problem
4. Membuat hipotesis
Making a hypothesis
5. Mengenal pasti pemboleh ubah
Identifying the variables
6. Mengawal pemboleh ubah
Controlling the variables
7. Merancang eksperimen
Planning an experiment
8. Mengumpul data / *Collecting data*
9. Mentafsir data / *Interpreting data*
10. Membuat kesimpulan
Making a conclusion
11. Menulis laporan / *Writing a report*

Keselamatan Makmal *Laboratory Safety*

Alat pelindung diri *Personal protective equipment*

- Kaca mata keselamatan
Safety goggles
- Topeng muka
Face mask
- Sarung tangan
Gloves
- Baju makmal
Laboratory coat
- Kasut makmal
Laboratory shoes

Peralatan keselamatan *Safety equipment*

- Kebuk wasap
Fume chamber
- Alat pemadam kebakaran
extinguisher
- Pencuci tangan
Hand wash
- Pancuran air
Shower
- Pencuci mata
Eyewash

- Tumpahan bahan kimia / *Chemical spill*
- Tumpahan merkuri / *Mercury spill*

Penyimpanan dan Pelupusan Bahan Kimia *Storage and Disposal of Chemicals*

- Sisa pepejal / *Solid waste*
- Bahan mempunyai nilai pH < 5 dan pH > 9
Substances with pH < 5 and pH > 9
- Pelarut organik / *Organic solvents*
- Hidrokarbon / *Hydrocarbons*
- Hidrogen peroksida / *Hydrogen peroxide*
- Bahan toksik / *Toxic substances*
- Logam berat / *Heavy metals*
- Bahan meruap / *Volatile substances*
- Bahan reaktif / *Reactive substances*

Pengurusan Kemalangan *Accident Management*