

















ACIDS AND BASES

<p>2. <i>Acetic Acid</i></p>	
<p>3. <i>Oleic Acid</i></p>	
<p>4. <i>Citric Acid</i></p>	
<p>5. <i>Calcium Hydroxide</i></p>	
<p>6. <i>Stearic Acid</i></p>	
<p>7. <i>Butyric Acid</i></p>	
<p>8. <i>Tartaric Acid</i></p>	
<p>9. <i>Ammonium Hydroxide</i></p>	

10. <i>Lactic Acid</i>	
11. <i>Palmitic Acid</i>	
12. <i>Sodium Hydroxide</i>	
13. <i>Oxalic Acid</i>	
14. <i>Malic Acid</i>	
15. <i>Uric Acid</i>	
16. <i>Tannic Acid</i>	
1. – 16 <i>Magnesium Hydroxide</i>	

1.-16MagnesiumHydroxide



3.OleicAcid



11.PalmticAcid

8.TartaricAcid



12.SodiumHydroxide



14.MalicAcid



15.UricAcid

6.StearicAcid



16. *Tannic Acid*



5. *Calcium Hydroxide*

4. *Citric Acid*



2. *Acetic Acid*

7. *Butyric Acid*



9. *Ammonium Hydroxide*



13. *Oxalic Acid*



10. *Lactic Acid*



CATION AND ANION

1. <i>Hydrogenion</i>	H^{+}
2. <i>Sodiumion</i>	Na^{+}
3. <i>Potassiumion</i>	K^{+}
4. <i>Silver</i>	Ag^{+}
5. <i>Copperion</i>	Cu^{+}
6. <i>Ammoniumion</i>	NH^{+}
7. <i>Hydrideion</i>	H^{-}
8. <i>Magnesiumion</i>	Mg^{+2}
9. <i>Chlorideion</i>	Cl^{-}
10. <i>Bromideion</i>	Br^{-}
11. <i>Iodideion</i>	I^{-}
12. <i>Hydroxideion</i>	OH^{-}

13. <i>Nitrateion</i>	NO_3^-
14. <i>Calciumion</i>	Ca^{+2}
15. <i>Zincion</i>	Zn^{+2}
16. <i>Copperion</i>	Cu^{+2}
17. <i>FerrouSION</i>	Fe^{+2}
18. <i>Aluminiumion</i>	Al^{+3}
19. <i>Oxideion</i>	O^-
20. <i>Sulphideion</i>	S^{-2}
21. <i>Sulphateion</i>	SO_4^{-2}
22. <i>Carbonateion</i>	CO_3^{-2}
23. <i>Dichromateion</i>	$Cr_2O_7^{-2}$
1. – 24 Start	Finish

1. – 24 Start



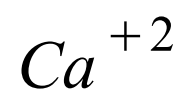
2. Sodiumion	Cl^{-}	9. Chlorideion	8. Magnesiumion	Mg^{+2}	12. Hydroxideion
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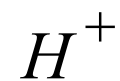
19. Oxideion

O^{-}	S^{-2}	20. Sulphideion	7. Hydrideion	H^{-}	I^{-}
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11. Iodideion

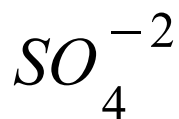


1. Hydrogenion	5. Copperion	Cu^{+}	Zn^{+2}	15. Zincion	14. Calciumion
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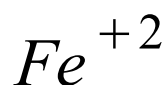


23. Dichromateion

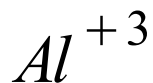
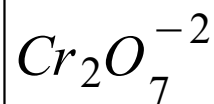
18. Aluminiumion



21. Sulphateion



17. Ferrousion

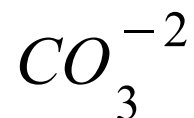
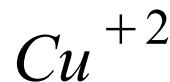


10. Bromideion

6. Ammoniumion



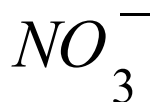
16. Copperion



22. Carbonateion

3. Potassiumion

Finish



13. Nitrateion



4. Silver



PHYSICAL QUANTITIES WITH FORMULA

1. <i>Acceleration</i> [<i>a</i>]	$\frac{\textit{Velocity}[v]}{\textit{Time}[t]}$
2. <i>Velocity</i> [<i>v</i>]	$\frac{\textit{Displacement}[s]}{\textit{Time}[t]}$
3. <i>Force</i> [<i>F</i>]	$\textit{Mass}[m] \times \textit{Acceleration}[a]$
4. <i>Pressure</i> [<i>P</i>]	$\frac{\textit{Force}[F]}{\textit{Area}[A]}$
5. <i>Momentum</i> [<i>p</i>]	$\textit{Mass}[m] \times \textit{Velocity}[v]$
6. <i>Work</i> [<i>W</i>]	$\textit{Force}[F] \times \textit{displacement}[s]$
7. <i>Power</i> [<i>P</i>]	$\frac{\textit{Work}[W]}{\textit{Time}[t]}$
8. <i>Area</i> [<i>A</i>]	$\textit{Length}[l] \times \textit{Breadth}[b]$
9. <i>Volume</i> [<i>V</i>]	$\textit{Area}[A] \times \textit{Height}[h]$
10 <i>Frequency</i> [<i>v</i>]	$\frac{1}{\textit{TimePeriod}[T]}$
11. <i>Density</i> [<i>d</i>]	$\frac{\textit{Mass}[m]}{\textit{Volume}[V]}$
1 – 12. Start	Finish

1 – 12.Start

8. *Area* [*A*]

$\frac{Mass[m]}{Volume[V]}$	3. <i>Force</i> [<i>F</i>]	$Mass[m] \times Acceleration[a]$	$Mass[m] \times Velocity[v]$	5. <i>Momentum</i> [<i>p</i>]	$Length[l] \times Breadth[b]$
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11. *Density* [*d*]

$\frac{Work [W]}{Time[t]}$

7. <i>Power</i> [<i>P</i>]	$\frac{Force[F]}{Area[A]}$	4. <i>Pressure</i> [<i>P</i>]	$\frac{Velocity[v]}{Time[t]}$	1. <i>Acceleration</i> [<i>a</i>]	$Area[A] \times Height[h]$
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9. *Volume* [*V*]

$Force[F] \times displacement[s]$

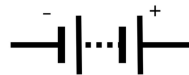
Finish	$\frac{1}{TimePeriod[T]}$	10 <i>Frequency</i> [<i>v</i>]	2. <i>Velocity</i> [<i>v</i>]	$\frac{Displacement[s]}{Time[t]}$	6. <i>Work</i> [<i>W</i>]
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ELECTRIC SYMBOLS

1 – 12 Start



12. *Electrical circuit*

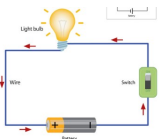


4. *Battery*

6. *Closeswitch*



9. *Voltmeter*



8. *Diode*



5. *Openswitch*



3. *Bulb*



10. *Ammeter*



7. *Wire*

Finish

11. *Directcurrent*

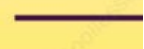



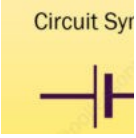



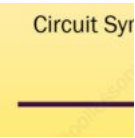




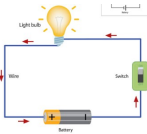
Circuit Syr




2. *Cell*



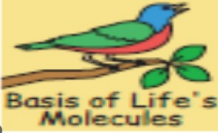

Circuit Syr









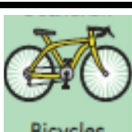




	<i>3. Bulb</i>
	<i>2. Cell</i>
	<i>4. Battery</i>
	<i>5. Openswitch</i>
	<i>6. Closeswitch</i>
	<i>7. Wire</i>
	<i>8. Diode</i>
	<i>9. Voltmeter</i>
	<i>10. Ammeter</i>
	<i>11. Direct current</i>
	<i>12. Electraceutical</i>
<i>1 – 12 Start</i>	<i>Finish</i>

ELEMENTS WITH IMAGES

24. <i>Chromium</i>	 <p>Stainless Steel</p>
25. <i>Manganese</i>	 <p>Earthmovers</p>
26. <i>Ferrous (Iron)</i>	 <p>Steel Structures</p>
27. <i>Cobalt</i>	 <p>Magnets</p>
28. <i>Nickel</i>	 <p>Coins</p>
29. <i>Copper</i>	 <p>Electric Wires</p>
30. <i>Zinc</i>	 <p>Brass Instruments</p>
1 – 30 Start	Finish

1. <i>Hydrogen</i>	 Sun and Stars
2. <i>Helium</i>	 Balloons
3. <i>Lithium</i>	 Batteries
4. <i>Beryllium</i>	 Emeralds
5. <i>Boron</i>	 Sports Equipment
6. <i>Carbon</i>	 Basis of Life's Molecules
7. <i>Nitrogen</i>	 Protein
8. <i>Oxygen</i>	 Air
9. <i>Fluorine</i>	 Toothpaste
10. <i>Neon</i>	 Advertising Signs
11. <i>Sodium</i>	 Salt
12. <i>Magnesium</i>	 Chlorophyll

13. <i>Aluminium</i>	 <p>Airplanes</p>
14. <i>Silicon</i>	 <p>Stone, Sand, and Soil</p>
15. <i>Phosphorous</i>	 <p>Bones</p>
16. <i>Sulphur</i>	 <p>Eggs</p>
17. <i>Chlorine</i>	 <p>Swimming Pools</p>
18. <i>Argon</i>	 <p>Light Bulbs</p>
19. <i>Potassium</i>	 <p>Fruits and Vegetables</p>
20. <i>Calcium</i>	 <p>Shells and Bones</p>
21. <i>Scandium</i>	 <p>Bicycles</p>
22. <i>Titanium</i>	 <p>Aerospace</p>
23. <i>Vanadium</i>	 <p>Springs</p>
Start	Finish

Start



2. Helium		9. Fluorine	8. Oxygen		12. Magnesium
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19. Potassium

		20. Calcium	7. Nitrogen		
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11. Sodium

1. Hydrogen	5. Boron			15. Phosphorous	14. Silicon
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23. Vanadium

18. Argon



Bicycles

21. Scandium



Swimming Pools

17. Chlorine



Springs



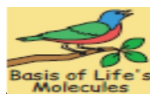
Light Bulbs



Advertising Signs

10. Neon

6. Carbon



Basis of Life's Molecules

16. Sulphur



Eggs



Aerospace

22. Titanium

3. Lithium

Finish



Airplanes

13. Aluminium



Emeralds

4. Beryllium



Batteries

1 – 30 Start



25. *Manganese*



28. *Nickel*

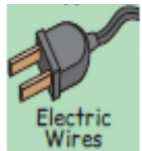
26. *Ferrous (Iron)*



30. *Zinc*



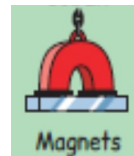
29. *Copper*



24. *Chromium*



27. *Cobalt*



Finish

ELECTRONIC CONFIGURATIONS

1. <i>Boron</i>	$[He]2s^22p^1$
2. <i>Carbon</i>	$[He]2s^22p^2$
3. <i>Nitrogen</i>	$[He]2s^22p^3$
4. <i>Oxygen</i>	$[He]2s^22p^4$
5. <i>Aluminium</i>	$[Ne]3s^23p^1$
6. <i>Fluorine</i>	$[He]2s^22p^5$
7. <i>Neon</i>	$[He]2s^22p^6$
8. <i>Phosphorus</i>	$[Ne]3s^23p^3$
8. <i>Sodium</i>	$[Ne]3s^1$
10. <i>Magnesium</i>	$[Ne]3s^2$
11. <i>Silicon</i>	$[Ne]3s^23p^2$
12. <i>Sulphur</i>	$[Ne]3s^23p^4$

14. <i>Chlorine</i>	$[Ne]3s^23p^5$
14. <i>Argon</i>	$[Ne]3s^23p^6$
15. <i>Potassium</i>	$[Ar]4s^1$
16. <i>Calcium</i>	$[Ar]4s^2$
17. <i>Scandium</i>	$[Ar]4s^23d^1$
18. <i>Titanium</i>	$[Ar]4s^23d^2$
19. <i>Vanadium</i>	$[Ar]4s^23d^3$
20. <i>Chromium</i>	$[Ar]4s^13d^5$
21. <i>Manganese</i>	$[Ar]4s^23d^5$
22. <i>Iron (Ferrous)</i>	$[Ar]4s^23d^6$
23. <i>Cobalt</i>	$[Ar]4s^23d^7$
24. <i>Start</i>	Finish

24. Start

$[Ne]3s^23p^4$

2. Carbon

$[Ne]3s^1$

8. Sodium

8. Phosphorus

$[Ne]3s^23p^3$

12. Sulphur

$[He]2s^22p^2$

19. Vanadium

$[Ar]4s^23d^3$

$[Ar]4s^13d^5$

20. Chromium

7. Neon

$[He]2s^22p^6$

$[Ne]3s^23p^2$

11. Silicon

$[Ne]3s^23p^6$

1. Boron

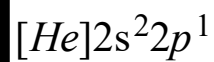
5. Aluminium

$[Ne]3s^23p^1$

$[Ar]4s^1$

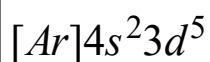
15. Potassium

14. Argon

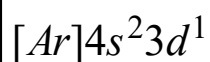


23. *Cobalt*

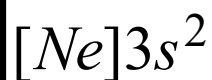
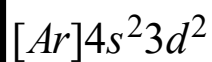
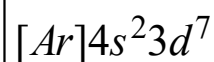
18. *Titanium*



21. *Manganese*

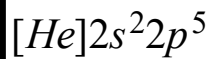


17. *Scandium*

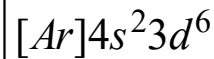
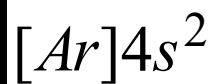


10. *Magnesium*

6. *Fluorine*



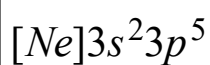
16. *Calcium*



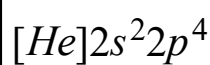
22. *Iron (Ferrous)*

3. *Nitrogen*

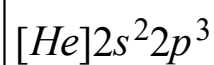
Finish



14. *Chlorine*



4. *Oxygen*



<i>25. Hydrogen</i>	$1s^1$
<i>26. Helium</i>	$1s^2$
<i>27. Lithium</i>	$[He]2s^1$
<i>28. Beryllium</i>	$[He]2s^2$
<i>29. Copper</i>	$[Ar]4s^13d^{10}$
<i>30. Zinc</i>	$[Ar]4s^23d^{10}$
<i>24. Nickel</i>	$[Ar]4s^23d^8$
1 – 30 Start	Finish

1 – 30 Start
[Ar]4s²3d⁸

26. Helium	[Ar]4s ¹ 3d ¹⁰	29. Copper	27. Lithium	[He]2s ¹	24. Nickel
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1s ²
30. Zinc

[Ar]4s ² 3d ¹⁰	25. Hydrogen	1s ¹	28. Beryllium	[He]2s ²	Finish
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