



ACTIVITY 5: ELEMENTAL DEDUCTION

BATTERY

Al ¹³ Aluminium	Li ³ Lithium	Co ²⁷ Cobalt
Si ¹⁴ Silicon	Sn ⁵⁰ Tin	K ¹⁹ Potassium
In ⁴⁹ Indium	Al ¹³ Aluminium	Ga ³¹ Gallium

TOUCH SCREEN

SOUND

Nd ⁶⁰ Neodymium	B ⁵ Boron	Ni ²⁸ Nickel	Pr ⁵⁹ Praseodymium
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ELECTRONICS

Au ⁷⁹ Gold	Cu ²⁹ Copper	Ag ⁴⁷ Silver	Ta ⁷³ Tantalum	W ⁷⁴ Tungsten
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**EARBUDS*
PHONE CASES***

C ⁶ Carbon	H ¹ Hydrogen
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STANLEY CUP

Ag ⁴⁷ Silver	Ni ²⁸ Nickel
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HOCKEY SKATES

Cr ²⁴ Chromium	Fe ²⁶ Iron
C ⁶ Carbon	

ZAMBONI

Fe ²⁶ Iron	Al ¹³ Aluminium
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SHUTTLE BODY

Al ¹³ Aluminium	Ti ²² Titanium
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ROCKET ENGINES

Cu ²⁹ Copper	Nb ⁴¹ Niobium
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OPTICS

Ce ⁵⁸ Cerium

THERMAL PROTECTION

Si ¹⁴ Silicon	C ⁶ Carbon
W ⁷⁴ Tungsten	Ta ⁷³ Tantalum

CONTROL SYSTEM

Si ¹⁴ Silicon	Ge ³² Germanium
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**ASTRONAUT VISORS
RADIATION REFLECTOR**

Au ⁷⁹ Gold

ENERGY SOURCE

U ⁹² Uranium

FUEL

C ⁶ Carbon	H ¹ Hydrogen
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QUESTION 1:

A table of chemical elements arranged in order of atomic number. (Answers may vary)

QUESTION 2:

SAMPLE ANSWERS

- | | |
|-------------------|------------------|
| Currency | Game Devices |
| Computers | Personal Hygiene |
| Television | Batteries |
| Smartphone | Sports Equipment |
| All appliances | Electricity |
| Food Processing | Vehicles |
| Cleaning Products | |

(Answers may vary)

QUESTION 3: D

QUESTION 4: B

ACTIVITY 6: MINING FOR ENERGY



BATTERY ENERGY STORAGE

3 Li Lithium	28 Ni Nickel	25 Mg Nickel
27 Co Cobalt	6 C Carbon	23 V Vanadium

STEEL USED TO BUILD TURBINES

26 Fe Iron	6 C Carbon
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BLADES

13 Al Aluminium



CORROSION PROTECTION

42 Mo Molybdenum

30 Zn Zinc



CONTROLS

29 Cu Copper	14 Si Silicon
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MAGNET GENERATION

26 Fe Iron	60 Nd Neodymium
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5 B Boron	66 Dy Dysprosium
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SOLAR PANELS

48 Cd Cadmium	52 Te Tellurium	42 Mo Molybdenum
4 Be Beryllium	32 Ge Germanium	31 Ga Gallium
49 In Indium	47 Ag Silver	14 Si Silicon

FRAME

13 Al Aluminium	22 Ti Titanium
30 Zn Zinc	12 Mg Magnesium



SEMI-CONDUCTOR

5 B Boron

15 P Phosphorous



WIRING

29 Cu Copper



- QUESTION 1:** Dmitri Mendeleev, 1869
- QUESTION 2:** Western Copper and Gold
- QUESTION 3:** D
- QUESTION 4:** A
- QUESTION 5:** Sample Answer: Solvest Inc. (Answers may vary)
- QUESTION 6:** C

**ACTIVITY 7:
MINING MAKES IT POSSIBLE**

SUBMISSIONS WILL VARY

ACTIVITY 8: PERIODIC TABLE SPELLING BEE

<https://sciencenotes.org/list-words-made-periodic-table-element-symbols/>
(Answers may vary)