



## Science Score content and applicability to U.S. elementary school curriculum standards (Grade 3 to Grade 6)

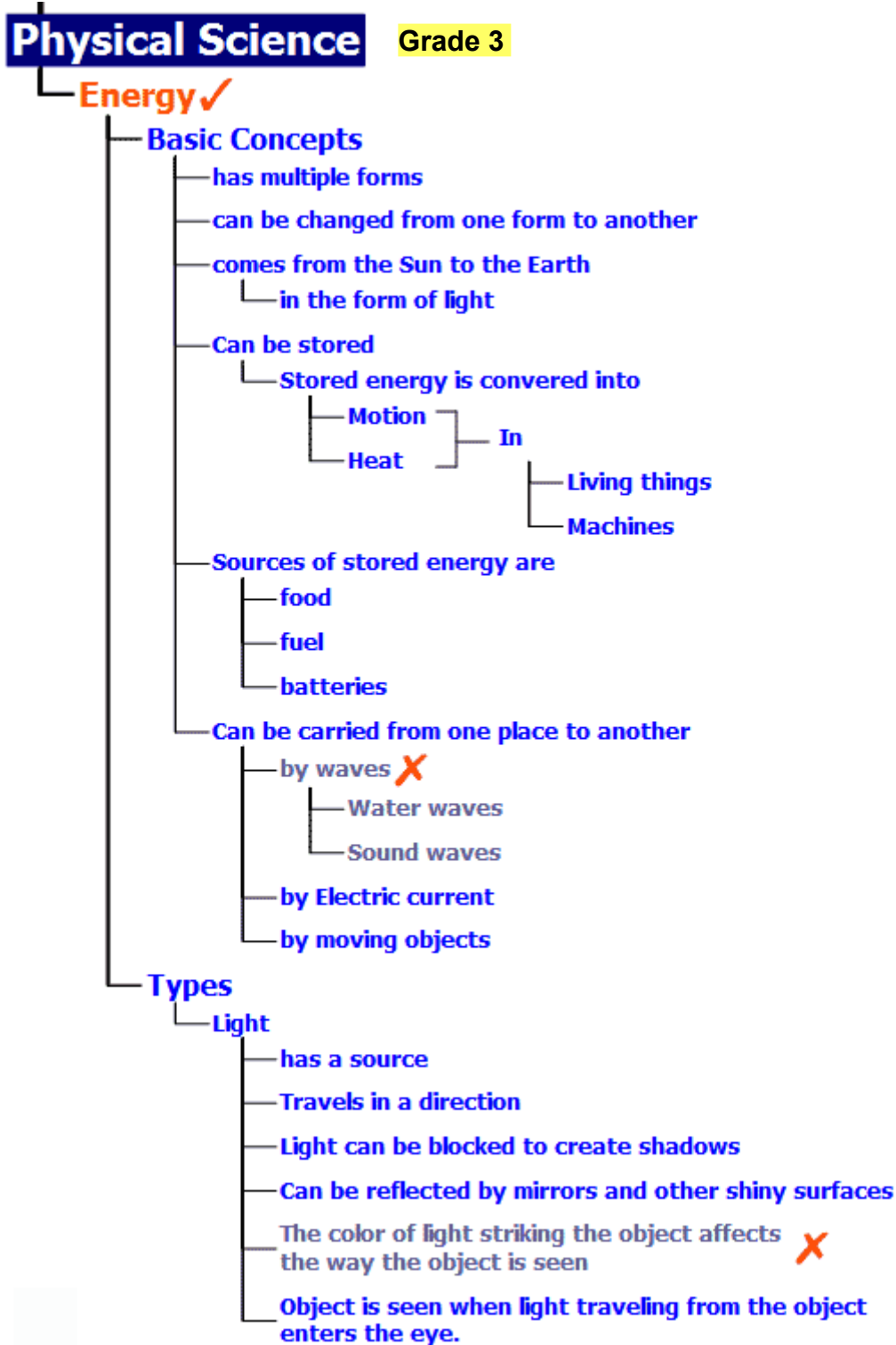
### **Science Score quizzes and assessments meet U.S. curriculum standards**

The quiz topics and assessment questions covered in Science Score have been carefully structured and mapped to the United States elementary school science curriculum standards widely applicable across different State standards. The assessment questions (styled as quizzes) are modelled after U.S. State standards tests administered as part of the Standardised testing and reporting program (STAR).

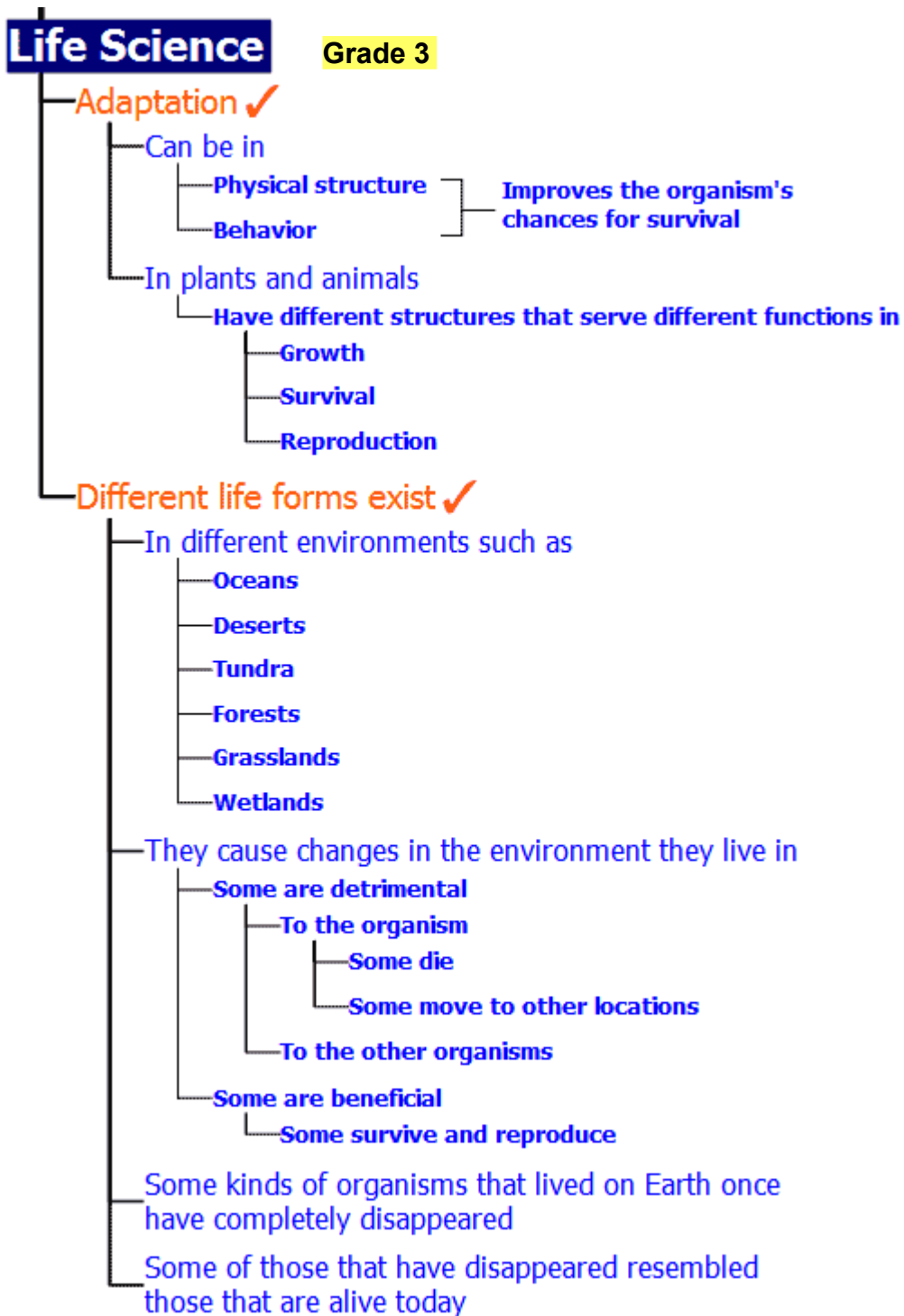
While Science Score started out to meet the needs of Singapore students and hence its content were structured to align with Singapore Science curriculum standards, we have now done extensive mapping of the curriculum standards and assessment questions to fall in line with Singapore, USA and British curriculum standards. Science being a subject matter with universal applicability we found a lot of overlapping of content coverage across various country curriculum framework and testing standards. We have since spent several man months to finetune the content framework to make it broadly appeal to a larger group of kids across different countries.

In the following pages we have provided a complete Topic coverage of Science content as applicable to the US curriculum requirements and indicated how much of these are covered by Science Score. Currently our assessment is that we cover nearly 70% of the requirements supporting the many U.S. State Board standards. We have randomly audited our content and assessment questions against California State Board and other reputed State Boards. We are continuously adding more content to fill the gaps and ensure that there is 100% coverage eventually. Also please note that all our content is original has been created from scratch with assistance from highly qualified Science professionals

Be it Singapore, U.S. or UK, we strongly believe that kids all over the world will find the quiz content extremely invaluable and will help them expand their overall knowledge in Science.



✗ Indicates that assessment questions are not currently available in Science Score for this topic



## Earth Science

### Grade 3

- Objects in sky move in regular and predictable patterns ✓
- Patterns of stars stay the same ✓
- Stars appear to move across the sky nightly ✓
  - └ The Position of the Sun Changes
    - └ During the course of the day
    - └ and from season to season
- Different stars can be seen in different seasons ✓
- Moons appearance changes during the four week lunar cycle ✓
- Telescopes magnify the appearance of some distant objects in the sky ( Moon, Planets etc) ✓
  - └ The number of stars seen through the telescope is greater than that can be seen through the naked eye.
- Earth is one of the eight planets that orbit the Sun ✓
  - └ The Moon orbits the Earth

## Physical Science

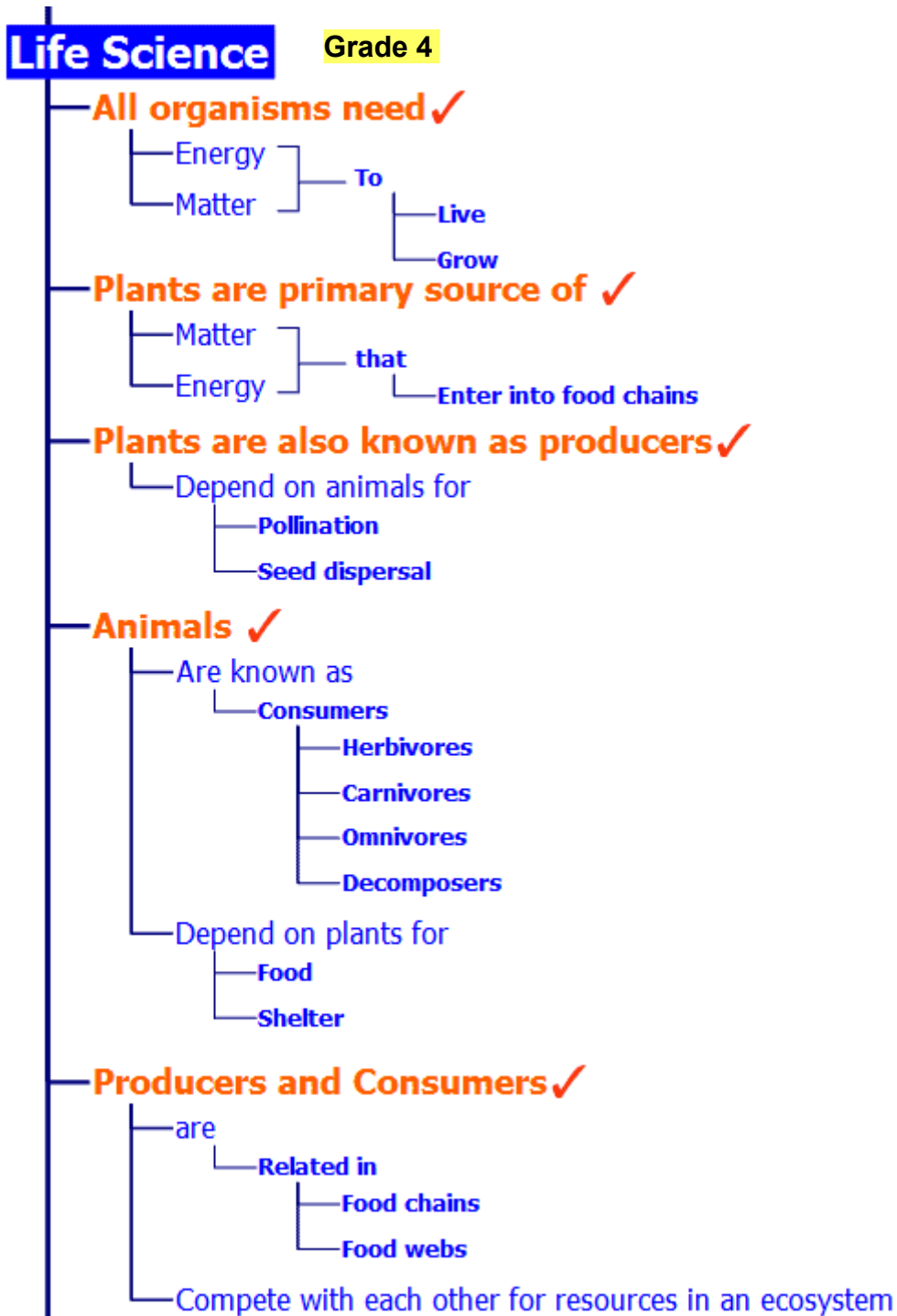
Grade 4

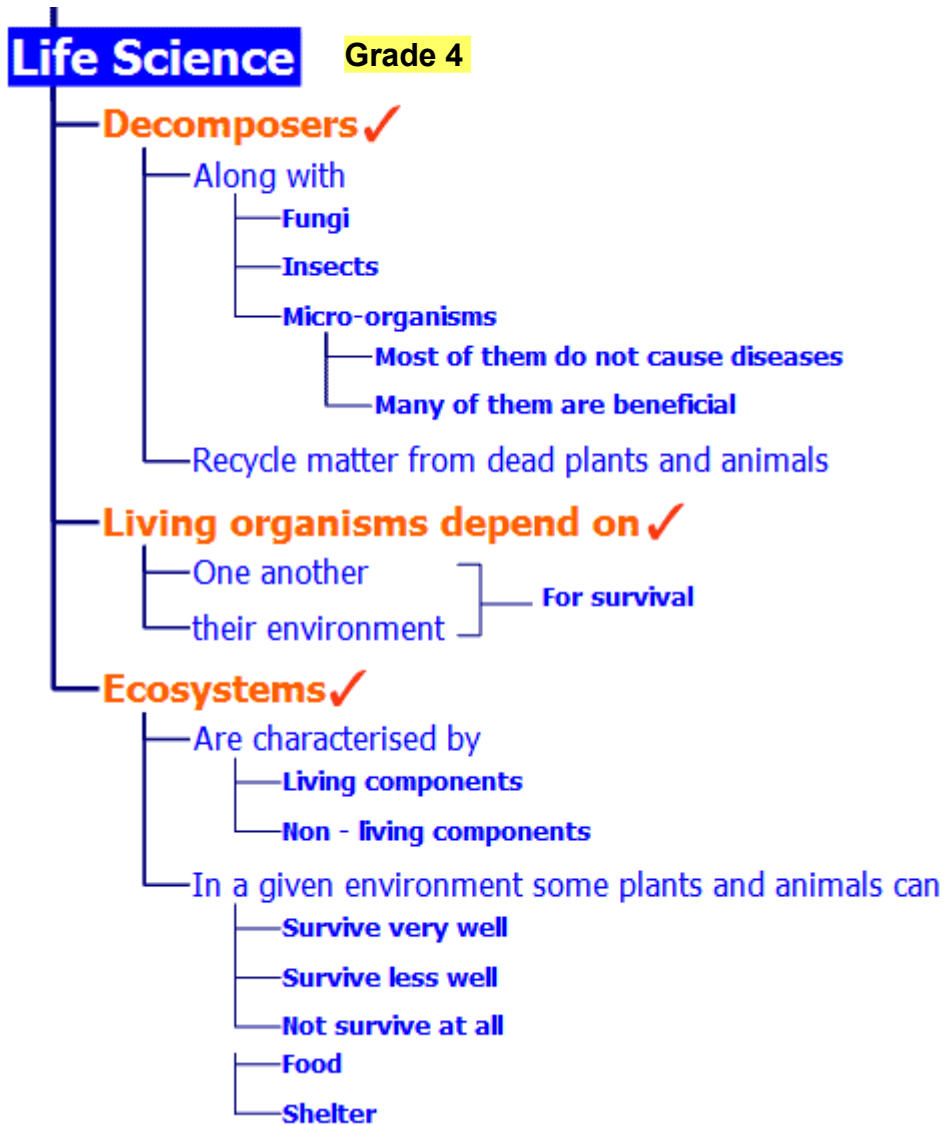
### Electricity ✓

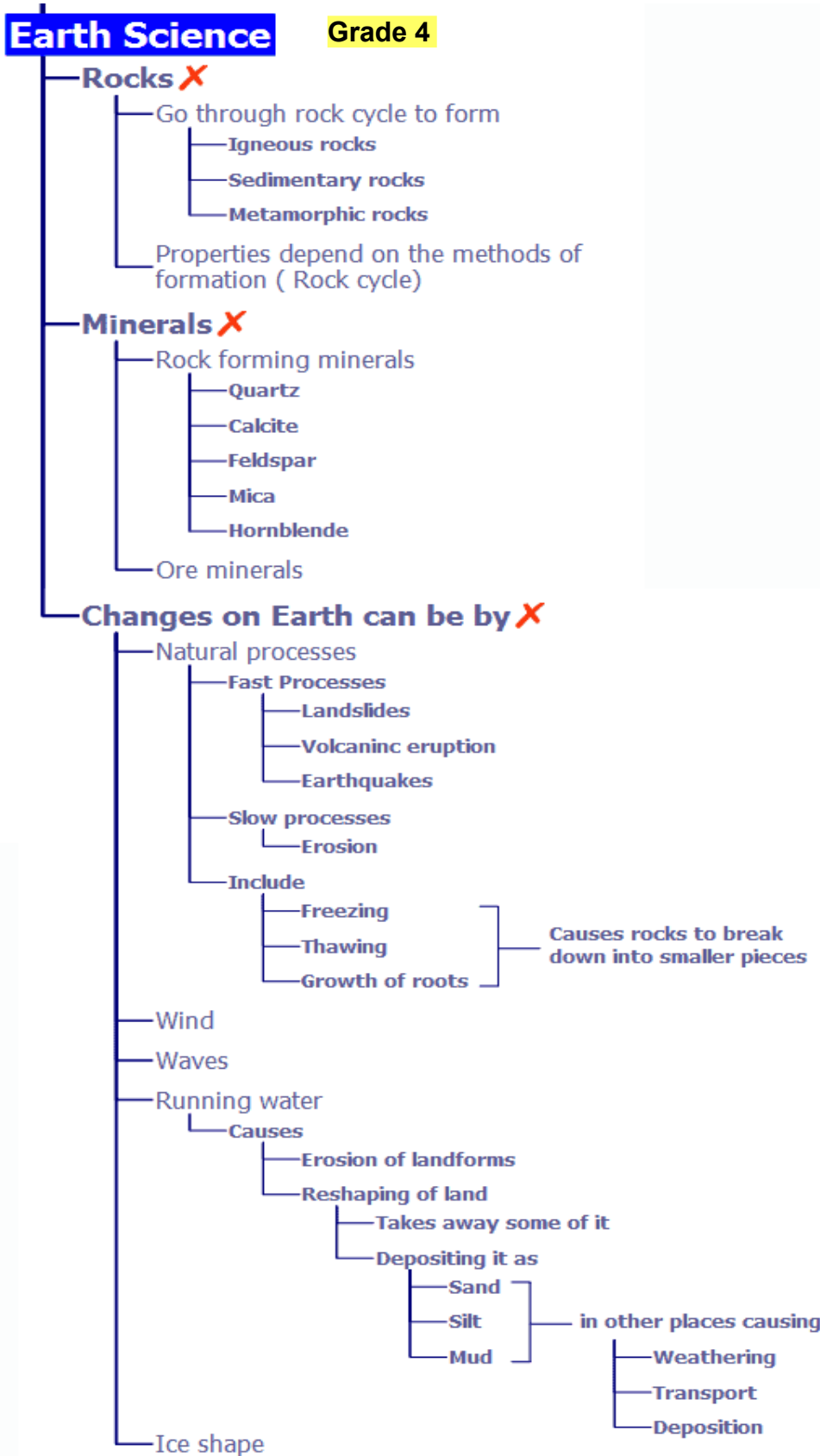
- Has many useful applications
- Is related to magnetism
- There are two types of circuits
  - Parallel
  - Series
- Circuits are made up of
  - Wires
  - Bulbs
  - Batteries
- Electric currents produce magnetic fields
- Is used to build electro magnet
  - Electro magnets are used in
    - Electric motors
    - Electric generators
    - Door bells
    - Earphones
- Electrically charged objects
  - Attract
  - Repel
- is a form of energy that can be converted into
  - Heat
  - Light
  - Motion

### Magnetism ✓

- Has several uses/ application
  - Can be used to make simple compass
  - Can be used to detect magnetic effects such as earth's magnetic field
- Magnets have two poles
  - North pole
  - South pole
  - Like poles repel each other
  - Unlike poles attract each other







## Physical Science

Grade 5

### Elements X

- Are made up of atoms
  - Their images can be viewed using instruments ( Electron microscope)
- Atoms combine to form molecules
- are organized in a periodic table according to their chemical properties
- Living organisms and most materials are made up of a few elements

### Combination of elements X

### Chemical reactions X

- The atoms in the reactants re-arrange
- A new substance known as the product is formed
  - This has a different property compared to that of the reactant's

## Physical Science

### Grade 5

#### Matter ✗

- made up of atoms
- atoms combine to form molecules
- 3 states of matter
  - solid — Sugar (C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>)
  - liquid — Water (H<sub>2</sub>O)
  - gas — helium(He)  
oxygen(O)  
Carbon dioxide (CO<sub>2</sub>)  
Nitrogen(N)
- physical properties
- chemical properties
- separation of mixtures
- Identification of compounds (example: NaCl)

#### Metals

- have
  - High electrical conductivity ✓**
  - High thermal conductivity ✓**
- Some are pure ✗
  - Examples (Aluminium, Iron, Nickel, copper, silver, gold)
- Some are a combination of other elemental metals ✗
  - Examples (Brass, steel)

## Life Science

Grade 5

### Animals ✓

#### Respiration ✓

The animal cells break down sugar to obtain energy

Carbon dioxide and water is produced

#### Digestion ✓

The digestive system

Consists of mouth, esophagus, stomach  
small intestine, large intestine, colon

Functions

#### Waste disposal ✗

Kidney

Removes cellular waste from blood

is converted into urine

is stored in the bladder

by

# Life Science

Grade 5

## Transport of materials ✓

### In animals ✓

Blood circulates through

Heart Chambers

Lungs

Carbon dioxide and oxygen are  
exchanged in lungs and tissues

Body

## Plants ✓

Transport of materials such as ✓

Sugar, water, minerals

Use ✓

Carbon dioxide

Energy from sunlight

To make

Sugar

Oxygen

Respiration ✓

The plant cells break down sugar to obtain energy

Carbon dioxide and water is produced

## Earth Science

Grade 5

### Water on Earth ✓

#### Moves between ✓

##### Ocean

Most of the water is found here

Consists of salt water

Covers most of the Earth's surface

##### Land

#### Exists in three states ✓

##### Solid - ice

##### Liquid - water

##### Evaporates

to form water vapor in air

When cooled below freezing point  
becomes solid ice

# Earth Science

Grade 5

## Water on Earth ✓

### Gaseous - water vapor ✓

Condenses

to form liquid water

Moves from place to place to form ✓

Fog

Clouds

are tiny droplets of ice or water

Fall back on Earth as

Rain, Hail, Sleet, Snow

## Fresh water is found in ✗

Rivers

Lakes

Underground sources

Glaciers

## Water goes through ✗

Condensation

Evaporation