

INTEGRATED SCIENCE

Topics covered in Form 2

Biology:

- Healthy Living (1)
- Healthy Living (2)

Chemistry:

- Elements, compounds and mixtures (1)
- Elements, compounds and mixtures (2)
- Focus on Gases

Physics:

- Light and Sound
- Electricity
- Forces

Suggested sites to visit are:

Healthy Living

<http://idahoptv.org/dialogue4kids/season11/nutrition/>

<http://www.sciencekids.co.nz/gamesactivities/keephealthy.html>

<http://www.sciencekids.co.nz/gamesactivities/microorganisms.html>

Light and Sound

<https://www.youtube.com/watch?v=WtQsq8s8XzU>

<http://www.youtube.com/watch?v=IU3V6zNER4g>

<http://sciencekids.co.nz/gamesactivities/changingsounds.html>

Before attempting the questions on the next page, a thorough revision of all topics covered in class is suggested. The given sites would be interesting to visit.

Revision Sheet

BIOLOGY

- Which are the seven food types needed for a well-balanced diet?
- Why is fibre needed?
- Why are proteins needed by the body?
- Which mineral is needed for strong teeth?
- What is vitamin A needed for?
- Which part of the digestive system absorbs a lot of water into the blood stream?
- Why is it important for food to be digested?
- What happens to the heart beat as one starts exercising?
- Why is it that a thicker muscle wall is present around the lower part of the heart?
- Why are valves present between the atria and the ventricles on both sides of the heart?
- Describe what happens as you breathe in air.
- Why is it difficult for a person to breathe if he gets an asthma attack?
- How can a disease spread?
- Why are we vaccinated against infectious diseases?
- What is meant by the first barrier of our natural defence system?
- What is the difference between an antiseptic and a disinfectant?

CHEMISTRY

- Elements may be metals or non-metals. Give 2 examples of metals and 2 examples of non-metals.
- Give the symbols of the elements you chose for the previous question.
- Which element is needed to burn things?
- When iron or magnesium reacts with oxygen in the air, the oxide is formed. Which of these 2 metals produces rust?
- When a spoonful of sugar is stirred vigorously in a glass of water a sugary solution is formed. Why is the reaction a physical not a chemical change?
- Which gas extinguishes a glowing splint with a 'pop'?
- When iron burns in chlorine it forms _____
- Underline the compounds in this list: Copper sulphate, mercury, sodium hydroxide, nitric acid and sulphur.
- What is an element made up of?

PHYSICS

- Draw a simple circuit diagram showing 2 bulbs in series with a switch and a battery.
- If one of the bulbs drawn were to have a broken filament, what would you expect to happen?

- Would the same happen if the bulbs were to be connected in parallel with each other?
- What happens as air is sucked out of a jar which is fitted with a ringing bell?
- What does this prove?
- How are shadows formed?
- Timmy pushes a box to the left with a force of 25N and Joseph pulls it to the same side with a force of 15N. What is the resultant force that acts on this body?

Happy Holidays!