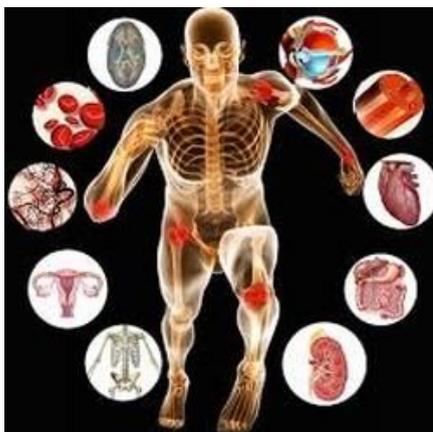


## SCIENCE BADGE HUMAN BIOLOGY

- There are 12 activities listed below, choose 7 of them to complete
- Each completed activity will be neatly presented, have appropriate diagrams/drawings/pictures, and be a minimum of a page of A4
- It will be presented in the form of a booklet



1. Explain what “muscle recovery time means and how it works.
2. New Zealand has a very high heart disease rate.
  - a. List 3 different heart diseases
  - b. Put together a list of 10 things that will reduce the risk of heart disease
3. Draw a simple labelled diagram of the human heart,
  - a. With arrows to show the direction of blood flow.
  - b. Find your pulse.
    - i. Count the number of times your heart beats per minute while you are relaxing
    - ii. The number of beats after 30 seconds of running
    - iii. The number of beats after 1 minute of running
    - iv. The number of beats 1 minute after runningShow in a tidy bar graph  
Write a comment on the results

4. Describe the stages of growth and development from birth to 20 years
  - a. Divide the 20 years into 5 equal stages
  - b. At each stage make a list of the 5 most significant changes in growth and development
  
5. What causes sunburn in New Zealand to happen so quickly;
  - a. How can it be prevented; what are the long term dangers of sunburn?
  - b. Design a poster with the key messages of staying safe re sunburn A4 size
  
6. Write in bullet point form the difference between good and bad posture in the standing position and lifting position.
  - a. Draw simple diagrams to show the difference.
  - b. Observe the posture of the next 30 people you meet. Estimate the % that is showing good posture.
  - c. Put together 5 reasons why good posture is important
  
7. Name and describe 5 types of cancer.
  - a. For each make a list of what is thought to cause them and how you can reduce your chances of getting them?
  
8. Find out about St John Ambulance
  - a. How are they funded?
  - b. St John offers different types of services - What do they do?
  - c. Write a job description of one role of St John's
  
9. Find out what vaccinations we should have and at what ages
  - a. We have people who do not think having the vaccinations are important
  - b. Put together a 'Pros and cons' diagram showing both opinion - write a short piece sharing your viewpoint and why

10. Are you eating a balanced diet? Find out the main food groups. Work out which groups you need to eat each day and roughly how much.
  - a. Keep a careful record of all the food and drink you consume over 24 hours.
  - b. Comment on your diet. Can it be improved? If so, how?
  
11. Interview a nurse, doctor or other health worker about his/her job. Write a report on the interview
  
12. Collect 10 newspaper cuttings on Health topics
  - a. Glue neatly to a sheet of paper
  - b. Under each cutting write a short piece
    - i. What is the written piece about
    - ii. What is the article trying to say

