



## Pathfinder Honour: Requirements & Framework

# Bones, Muscles & Movement

Part of Health & Science Category of Honours

Honour Patch



Part of Health  
Master Honour



### Snapshot of Honour

This honour is all about you - your bones, muscles and joints. They are fascinating pieces of 'machinery' and, as the scriptures declare "wonderfully made".

You will gain a basic understanding of what our bones do, how they grow and how they (with medical assistance) repair themselves if they are broken. Then there are your muscles. Some work automatically (your heart and breathing for instance) while there are others that can be trained to do things such as talking, walking, catching a ball or threading a needle.

You'll know the names of your vital bones and muscles. You will make a simple model of one of your movable joint. As was said before, this honour is all about you!

### Honour History:

Original Honour: 1999, Author not known

General Conference: Reviewed 2001

South Pacific Division: Reviewed March 2011.

- Compiled John Sommerfeld, Serena Marshall, South Queensland Conference  
Note. Serena has a Masters Degree in Physiotherapy

## Bones, Muscles & Movement Honour

**Honour Framework:** [Compulsory items are underlined. Others are for guidance]

#Skill Level:	Level 2 / 3
<u>Pre-requisites:</u>	Nil
Preparation Time:	Average (4-8 hrs)
Physical Requirements:	Minimal
Equipment/Materials Required:	Models of the human skeleton etc are useful but not essential.
Location:	Indoors; Outdoors; Excursion etc
Sabbath Appropriate:	Can be adapted
<u>Safety &amp; Legal Requirements:</u>	Refer to and comply with Local, State and Country Requirements. All duty of care must be complied with.
Links to P/F Curriculum: (Cards, Speciality, Pursuits), or AO Modules	
Suggested Teaching / Presentation method(s):	Presentation and Discussion; Excursion; Practical application;
Recommended Assessment:	Workbook & Assessment Sheet which has a checklist of practical requirements and a short test to check knowledge of the honour.
List of Resources:	See Trainer's Notes

#Skill Level. A General Conference term which broadly describes typical physical and mental development. Level 1 (Friends, Companions); Level 2 (Explorers, Rangers); Level 3 (Voyagers, Guides)

### Honour Components:

Requirements:	See following page
Trainer's Notes:	Bones, Muscles & Movement Honour Trainer's Notes
Student's Workbook:	Bones, Muscles & Movement Honour Workbook
Assessment Sheet:	Bones, Muscles & Movement Honour Assessment (On SPD Honour Website but Leader's level access is required)

# Bones, Muscles & Movement Honour

## Requirements

Source: General Conference of SDA, 18 June 2010

<http://gcyouthministries.org/Ministries/Pathfinders/Honors/tabid/85/agentType/View/PropertyID/194/Default.aspx>

*Note: Any Additional South Pacific Division (SPD) Requirements are in italics*

~~Strikethroughs~~ show parts not applicable to the SPD.

1. What's the difference between exoskeletons and endoskeletons? Which type of skeleton do humans have?
2. List three functions of the skeletal system.
3. Is bone a living tissue? Explain why or why not.
4. Describe the structure and development of bone.
5. Identify the following bones of the skeletal system: Carpals, clavicle (collar bone), cranium, femur, fibula, humerus, mandible, maxillary bones, metacarpals, metatarsals, patella, pelvis, phalanges, radius, ribs, scapula (shoulder blade), coccyx (tail bone), sternum (breast bone), tarsals, tibia, ulna, and vertebrae.
6. What is a joint?
7. List the three types of joints found between bones.
8. Name and describe six types of freely movable joints. Be able to locate an example of each of these in your body.
9. Be creative and construct a model of one of the six freely movable joints.
10. What is another name for a broken bone? List 3 types of breaks that can occur in bones. Describe how bones heal and how doctors can help this process.
11. What is osteoporosis? Who can get it? List at least 5 health habits that deal with maintaining healthy bones and muscles.
12. What is the function of the muscular system?
13. Name and describe three types of muscle tissue. Give one example of each.
14. Be able to identify the following muscles on your body: Masseter, Trapezius, Deltoid, Pectoralis, Biceps, Abdominal, Quadriceps, Triceps, Latissimus dorsi, Gluteus maximus, Hamstrings, Gastrocnemius, and Soleus.
15. Describe the process that causes a muscle to contract.
16. Describe the difference between voluntary and involuntary muscles.
17. Using your model in # 9, show how muscles, bones, and joints work together to produce movement.
18. Find 3 texts in the Bible that mention bones and/or muscles. Tell about each one in your own words.

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General Conference Reference No: Bones, Muscles & Movement