

Muscles and Joints

The activities are related to the work in the KS4 module Humans as Organisms.

Module names and content may vary from syllabus to syllabus.



Organisation of the Materials

The SMART Notebook™ file is saved as “KS4 muscles and joints.notebook”. It consists of eight pages, the first of which is a title page. There are six pages to support the activity.

These can be used as lesson starters, lesson plenaries or to support the main part of the lesson. Page 7 contains links to some useful websites, and page 8 contains teachers notes.

The materials can also be used as part of a revision lesson.

Activity 1

Page 2 contains a short lesson starter activity to revise/familiarise pupils with some of the keywords associated with this topic.

Hidden under the blue shapes are anagrams and hidden under the green shapes are the corresponding answers.

The activity uses the flash-based countdown timer. This is already on the page. If you wish to use it in the future you can find it in the Gallery under Professional/General Resources/Paper Backgrounds and Tools.

Set the timer to count down and then set the time to 30 seconds using the green and red triangles.

Reveal the first anagram by deleting the shape and start the countdown timer. Pupils then have 30 seconds to solve the anagram.

At the end, reveal the correct answer. Repeat for each of the other six anagrams.

If you wish to make your own anagrams, you can speed up the process using the anagram generator at wordsmith.org/anagram



Page 2

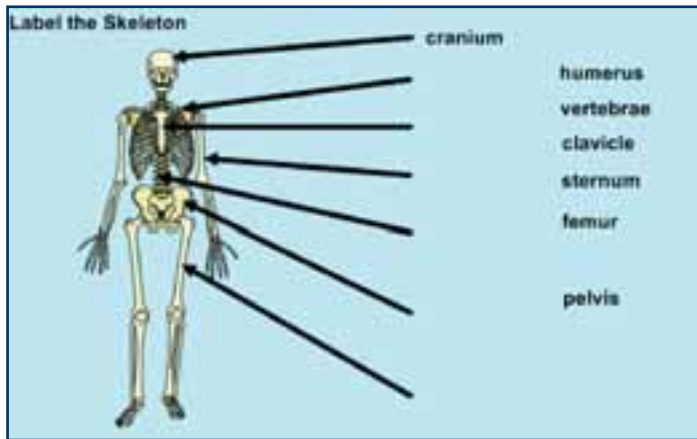


Activity 2

Page 3 has a quick activity to label the parts of the skeleton. Present this diagram to the pupils and give them some time to consider where the labels should go.

Then ask them to come to the board to drag the labels to the correct lines.

Page 4 has a similar activity that covers the two main muscles in the arm and what they do.



Page 3



Page 4

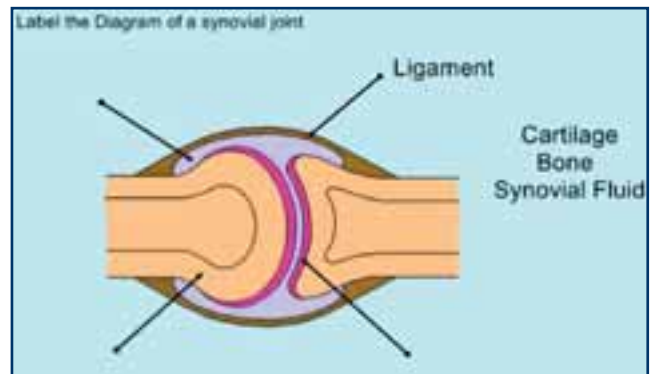
Notes

www.smartboard.co.uk

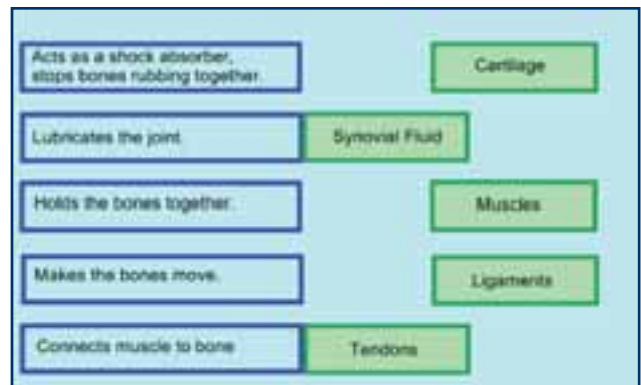
Produced by Steljes and written by Danny Nicholson

Activity 5

Page 5 has a diagram of a synovial joint. Pupils can drag the text to the correct positions to label the diagram.



Page 5

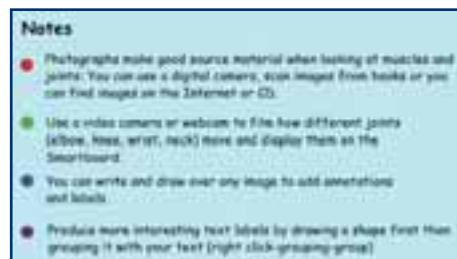


Page 6

Page 6 is a summary of the parts of a synovial joint and the role that they perform.

Give the pupils a few minutes thinking time to match these up on their own. Then invite one up to the board to drag the cards to their correct positions.

Other Notes



Page 8

The SMART Notebook Gallery has an Education area, within which is a Science and Technology area. Within the Biology section there are some useful images and diagrams that you can drag into a Notebook page, resize and manipulate.

Google is a great source of images to use with your Notebook files. Use the camera tool to capture images and bring them into your notebook.

You can modify the "KS4 muscles and joints.notebook" Notebook file in any way you like – but it would be a good idea to save it with a different name in case you want to access the original again in the future.