**Medics**

**in Primary Schools**

**Activity Sheets**

There are references to **activity sheets** throughout the MiPS Student Guide. These are *Word* documents aimed mainly at the middle range of Years 6 and 7 pupils. They are deliberately basic, and you will probably have to amend these to meet the varied abiliities of your pupils: please discuss this with your class teacher, and feel free to develop the sheets to meet your own, and your school’s requirements. They may be used for individual or pair / group activities. Some may be given as homework, or used by the teacher between visits. Three general activity sheets are provided: A4 *Compare and contrast*, A5 *Group discussion* and A6 *Glossary*. These may be used as appropriate.

B sheets are for use with *Healthy Body*, and C sheets with *Healthy Breathing and Circulation.*

Activity sheets are provided in black and white only as they are designed for amendment as required and, because of printing costs, your school may be reluctant to print in colour. Please check your school’s policy on photocopying, and let the school have advance copies by email attachment of material you would like photocopied, to be ready for your visit or online encounter. As the material you copy is for the benefit of the school’s pupils, you should not be expected to pay for photocopying.

The sheets listed below are available below:

A1 Increasing learning

A2 Rules for a healthy mind

A3 Rules for healthy relationships

A4 Compare and contrast (general)

A5 Group discussion (general)

A6 Glossary (general)

B1 Matching muscles

B2 Body systems

B3 Handy measurement

B4 Food in transit

B5 What is food for?

B6 Energy for life

B7 Body glossary (elementary)

B8 Body glossary (open-ended)

B9 Body systems glossary

B10 Damaged organs

B11 Bacteria and viruses

B12 Magnification

B13 Saving my skin

B14 Labelling skin

B15 Connecting skin

C1 Pulse rate

C2 Blood, glorious blood

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| Medics in Primary Schools  **Increasing learning** | Activity Sheet  **A1** |

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| Subject of lesson |  |

List two things you learned from this lesson (complete sentences, please).

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Now add another two items following your pair / group discussion.

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Now list, in order, what **you** consider to be the most important items from the class discussion – or draw a spray diagram overleaf.

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| **1** |  |
| **2** |  |
| **3** |  |
| **4** |  |
| **5** |  |

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| Medics in Primary Schools  **Rules for a healthy mind** | Activity Sheet  **A2** |

List three things you need to do to develop a healthy mind.

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Now add another three items following your pair / group discussion.

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Now list, in order, what **you** consider to be the most important items from the class discussion.

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(add boxes as required)

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| Medics in Primary Schools  **Rules for healthy relationships** | Activity Sheet  **A3** |

List three things you need to do to develop healthy relationships with other people.

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Now add another three items following your pair / group discussion.

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Now list, in order, what **you** consider to be the most important items from the class discussion.

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| --- | --- |
| **1** |  |
| **2** |  |
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(add boxes as required)

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| Medics in Primary Schools  **Compare and contrast** | Activity Sheet  **A4** |

You can use this *Compare and Contrast* application to look at similarities and differences between things, and decide how important these are.

1. Replace ‘**Item** **A’** by the first of these items (for example by ‘sight), and ‘**Item** **B’**by the second (for example by ‘hearing’) in both boxes where they occur.

2. In section 1, list as many ways as you can how the items are similar. Add extra rows if you need to.

3. In section 2, list the ways in which the items are different, and say how each is different from the other.

4. In section 3, summarise what you have learned from this exercise.

The boxes will expand to take your responses, and you can add more lines as required.

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| **Item A** | **Item B** |

**Section 1. How are these items alike? Both ….**

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(add boxes as required)

**Section 2. How are these items different?**

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| --- | --- | --- |
| **Item A** | **feature used to compare** | **Item B** |
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(add boxes as required)

**Section 3. Is there a pattern of similarities or differences? If so, what is it? What conclusion can you reach from this information?**

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| Medics in Primary Schools  **Group discussion** | Activity Sheet  **A5** |

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| **Topic** |  |

List three items in response to your teacher / medical student’s request.

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Now add another two items following your pair / group discussion.

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Now list, in order, what **you** consider to be the most important items from the class discussion.

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| --- | --- |
| **1** |  |
| **2** |  |
| **3** |  |
| **4** |  |
| **5** |  |
| **6** |  |

(add boxes as required)

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| Medics in Primary Schools  **Glossary** | Activity Sheet  **A6** |

A *glossary* is a list of words, together with their meanings or explanations. List words new to you in the left column below. Find out what each word means and write this into the right column. If you are using this sheet electronically, the spaces will expand to allow for your explanations. Draw diagrams over the page if you think this helps. There are many new words or phrases in the course. You can extend the table to include these.

|  |  |
| --- | --- |
| **Word or phrase** | **Meanings / Explanation** |
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| Medics in Primary Schools  **Matching muscles** | Activity Sheet  **B1** |

You are given nine statements (in green).

1. On your own, write under each statement whether you think this is true or false.

2. Then, in a small group, you will be given nine answers (in blue). Please look at each statement in turn and match it with the correct answer.

*Please print these sheets, preferably on card, and cut them each into nine slips.*

*Shuffle the slips, for pupils to match.*

|  |  |  |
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| **1. True or false?**  Without exercise, muscles turn to fat | **2. True or false?**  Training does not improve the heart, only the muscles | **3. True or false?**  Training has no effect on the bones |
| **4. True or false?**  If you eat more protein you will build more muscle. | **5. True or false?**  You shouldn’t exercise a sore muscle | **6. True or false?**  To prevent injury, you should warm up before exercise. |
| **7. True or false?**  Sports drinks help you to exercise better | **8. True or false?**  The more you sweat during exercise, the more fat you burn | **9. True or false?**  Light exercise has more health benefits than strenuous exercise. |

*Answers*

|  |  |  |
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| **False**  Without exercise your muscles shrink (atrophy), but they don’t turn to fat. | **False**  The heart is also a muscle and so becomes stronger with exercise. | **False**  Strength training helps to build bone |
| **True**  Protein builds muscle – but excess protein is lost in urine, and cannot be stored in the body | **It depends**  Don’t exercise If the muscle is sore to touch. However exercise increases blood flow, which helps healing | **True**  Warming up prepares the muscle for activity by increasing blood flow to the muscles |
| **True**  They normally contain sodium and glucose – but plain water may be good enough | **False**  The harder you exercise the more fat you burn. But this does not depend on how much you sweat | **False**  False - strenuous exercise improves aerobic fitness |

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| Medics in Primary Schools  **Body systems** | Activity Sheet  **B2** |

The diagram below shows an outline of a human body.

Draw where you think each of the following systems or organs is placed. Use different colours to help you.

- brain

- central nervous system

- heart

- kidneys

- liver

- respiratory system

- stomach

- teeth

- urinary system





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| Medics in Primary Schools  **Handy measurement** | Activity Sheet  **B3** |

Your skeleton has many bones of different lengths. Ancient civilisations used bones of the human body in measuring. The Egyptians used measurements like this to help them build the pyramids. Find out what each unit below means, and measure this for your own body and one of your friends.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Body Unit** | **Explanation** | **My**  **Measurement (cm)** | **My Friend’s Measurement (cm)** | **Class Average**  **(cm)** |
| **Cubit** |  |  |  |  |
| **Fathom** |  |  |  |  |
| **Foot** |  |  |  |  |
| **Hand** |  |  |  |  |
| **Inch** |  |  |  |  |
| **Pace** |  |  |  |  |
| **Span** |  |  |  |  |

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| Medics in Primary Schools  **Food in transit** | Activity Sheet  **B4** |

The list below shows the steps that happen as food moves through your digestive system. These are not in a logical order.

1. List them in their correct order.

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| A Dissolved food leaves your intestines and enters your bloodstream  B Food enters your mouth where you chew it and mix it with saliva  C Food is stored for a short time and is mixed with gastric acids  D Food passes down your throat to your stomach  E Food passes by your pancreas, which release enzymes that help your digestion  F Undigested food waste collects here for a short time  G Undigested food waste passes out through your anus |

Digestive steps in the correct order

|  |
| --- |
| **1.** |
| **2.** |
| **3.** |
| **4.** |
| **5.** |
| **6.** |
| **7.** |

2. The diagram below shows an outline of your digestive system. Please label the diagram to show: your mouth, tongue, throat, stomach, liver, pancreas, intestines, and anus. Put the letters A – G on the diagram to show where each of the steps in Question 1 happens.

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| Medics in Primary Schools  **What is food for?** | Activity Sheet  **B5** |

Every day we eat lots of food. We use this to build our bodies and enable us to do things like breathing and running about. There are many different things called ‘nutrients’ in food. In the boxes below write down what these nutrients are for.

Give some examples if possible.

|  |  |
| --- | --- |
| **Nutrient** | **What is this nutrient for?** |
| **carbohydrates** |  |
| **fats** |  |
| **proteins** |  |
| **vitamins** (list some specific vitamins) |  |
|  |
|  |
| **minerals** (list some specific minerals) |  |
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| **fibre** |  |
| **water** |  |

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| Medics in Primary Schools  **Energy for life** | Activity Sheet  **B6** |

Collect food labels from some foods and drinks, for example: shortbread, butter, chocolate, crisps, nuts, cereal, yoghurt, fruit juice, bread, apples. You can find many others.

Record how much energy you can get from 100 grams of each food.

Also record the amount of fat in 100 grams of each food.

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| **Food** | **Energy per 100 grams**  **(in kilojoules)** | **Fat per 100 grams**  **(in grams)** |
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Now compare the amount of energy and the amount of fat for each food. You may find it useful to draw a scatter graph below.

Write a sentence to describe any pattern you see.

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**Amount of fat in grams**

**Amount of energy in kilojoules**

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| Medics in Primary Schools  **Body glossary** | Activity Sheet  **B7** |

A *glossary* is a list of words, together with their meanings or explanations. Some words from *Healthy Body* are listed in the left hand column below. Find out what each word means, and in the right hand column match this word with an explanation from below the table.

|  |  |
| --- | --- |
| **Word or phrase** | **Meanings / Explanation** |
| **bone** |  |
| **collagen** |  |
| **joint** |  |
| **ligament** |  |
| **tendon** |  |

Structures where two bones are attached

Solid structures that support the body and protect vital organs

Long thin proteins that act as supporting structures

Tissue that attaches a muscle to other body parts

Strong binding material that fastens bones together

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| Medics in Primary Schools  **Body glossary** | Activity Sheet  **B8** |

A *glossary* is a list of words, together with their meanings or explanations. Some words from *Healthy Body* are listed in the left column below. Find out what each word means, and write this into the right column. If you are using this sheet electronically, the spaces will expand to allow for your explanations. Draw pictures over the page if you think this helps. There are many other new words or phrases in this unit. You can extend the table to include these.

|  |  |
| --- | --- |
| **Word or phrase** | **Meanings / Explanation** |
| **bone** |  |
| **collagen** |  |
| **joint** |  |
| **ligament** |  |
| **tendon** |  |
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[insert more spaces as required]

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| Medics in Primary Schools  **Body Systems Glossary** | Activity Sheet  **B9** |

A *glossary* is a list of words or phrases, together with their meanings or explanations. Some words from *Healthy Body* are listed in the left column below. Find out what each word or phrase means, and write this into the right column. If you are using this sheet electronically, the spaces will expand to allow for your explanations. Draw pictures over the page if you think this helps.

|  |  |
| --- | --- |
| **Word or phrase** | **Meanings / Explanation** |
| **Digestive system** |  |
| **Respiratory**  **System** |  |
| **Central nervous system** |  |
| **Muscular system** |  |
| **Skeletal system** |  |
| **Skin** |  |

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| Medics in Primary Schools  **Damaged organs** | Activity Sheet  **B10** |

All of the organs in your body have a specific job to do, and your body can’t work properly if any of these is damaged. Find out, and explain in the table below, what happens if the organ in the first column is damaged or missing. If you are using this sheet electronically, the spaces will expand to allow for your explanations.

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| --- | --- |
| **Organ** | **What happens?** |
| **appendix** |  |
| **brain** |  |
| **heart** |  |
| **kidneys** |  |
| **liver** |  |
| **lungs** |  |
| **pancreas** |  |
| **skin** |  |
| **teeth** |  |

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| Medics in Primary Schools  **Bacteria and Viruses** | Activity Sheet  **B11** |

You can use this *Compare and Contrast* activity to look at similarities and differences between bacteria and viruses, and decide how important these are.

1. In section 1, list as many ways as you can how the items are similar. Add extra rows if you need to.

2. In section 2, list the ways in which the items are different, and say how each is different from the other.

3. In section 3, summarise what you have learned from this exercise.

**The boxes will expand to take your responses, and you can add more rows as required.**

**Section 1. How are bacteria and viruses alike? Both ….**

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| --- |
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**Section 2. How are bacteria and viruses different?**

|  |  |  |
| --- | --- | --- |
| **Bacteria** | **feature used to compare** | **Viruses** |
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**Section 3. Is there a pattern of similarities or differences? If so, what is it? What conclusions can you reach from this information?**

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| Medics in Primary Schools  **Magnification** | Activity Sheet  **B12** |

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|  |  |  |  |  |  |  |  |  |  |  |  |  |  | Try this. Look at the small squares to the left directly with one eye, and through the magnifying glass with the other.  How many squares that you see directly can you see inside each square you look at through the magnifying glass? |
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**Draw a picture of your skin, as you see it through a magnifying glass or microscope.**

**Now write two sentences to describe what you see.**

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| Medics in Primary Schools  **Saving my skin** | Activity Sheet  **B13** |

Your skin protects you from many dangers in the world around you.

But there are many things that can harm your skin.

In the left column of the table below, list six things that can harm your skin.

In the right column, say what you can do to prevent these things from harming you.

|  |  |
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| **What might harm my skin?** | **What can I do to prevent this?** |
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| Medics in Primary Schools  **Labelling skin** | **Activity Sheet**  **B14** |

The diagram below shows the various components (parts) of your skin, labelled A to M. These are (1) artery, (2) capillaries, (3) dead skin flakes, (4) fat, (5) hair, (6) nerve, (7) nerve receptor, (8) oil gland, (9) opening of sweat duct (pore), (10) sweat gland, (11) surface layer, and (12) vein.

1. Please put each of these words or phrases on its proper place against each of the letters on the diagram below.

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2. Now write the name of each component after the correct letter in the table below and, in the right hand column, explain what each of these is for.

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| **Letter** | **What is it?** | **What does it do?** |
| **A** |  |  |
| **B** |  |  |
| **C** |  |  |
| **D** |  |  |
| **E** |  |  |
| **F** |  |  |
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| **L** |  |  |
| **M** |  |  |

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| Medics in Primary Schools  **Connecting skin** | Activity Sheet  **B15** |

Look at the two columns below. The column on the left lists some components of your skin. The column on the right lists some functions of these components. Draw lines connecting each component to the appropriate function. There may be more than one line in connection with some boxes.

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| **Component** |  | **Function** |
| **Soft tissue (dermis)** |  | **Temperature control** |
| **Hair and oil glands** |  | **Heat insulation** |
| **Sweat glands** |  | **Energy storage** |
| **Nerves** |  | **Sense of touch** |
| **Blood**  **(arteries capillaries veins)** |  | **Protection from harm** |
| **Fat** |  | **Keeping out water and other unwanted materials** |

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| Medics in Primary Schools  **Pulse rate** | Activity Sheet  **C1** |

Please meaure and fill in your pulse rate below,

(1) before you exercise,

(2) just after you have exercised, and

(3) five minutes after you have finished.

Then find out and fill in the mean (average) for the class, and for girls and boys separately. You can draw a graph to show your results and, on the next page, say what you learned from this activity.

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| --- | --- | --- | --- |
|  | **Pulse rate (in beats per minute)** | | |
| **before exercise** | **just after exercise** | **five minutes after exercise** |
| **Mine** |  |  |  |
| **Mean value for the class** |  |  |  |
| **Mean value for the girls** |  |  |  |
| **Mean value for the boys** |  |  |  |

**Space for my graph What did I learn from this activity?**

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| Medics in Primary Schools  **Blood, glorious blood** | Activity Sheet  **C2** |

Answering the questions in this activity sheet will help you summarise and remember what you have learned about blood.

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| **What does my blood do?** |  |
| **What is the difference between my arteries, capillaries and veins?** | **Arteries** |
| **Capillaries** |
| **Veins** |
| **What do my red blood cells do?** |  |
| **What do my white blood cells do?** |  |
| **What do my blood platelets do?** |  |
| **How does my blood help me resist disease?** |  |
| **What is anaemia, and what can be done about it?** |  |
| **What does the Northern Ireland Blood Transfusion Service do?** |  |