

KS3 Bleeding

**1. Details of the teacher**

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| Name: | Date: | Time: | Class: |

**2. Topic overview**

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| **Suggested timing for session (excluding optional activities) is 60 minutes.**  **Teaching staff notes:**  **NOTE\* ensure all students are not affected by images containing blood prior to playing video content\***  Delivery of this session must ensure that all students maintain the safety of themselves and others, they should realise rushing into a situation to assist a casualty may cause further harm to themselves and/ or others. Students should be able to identify when a casualty has a bleed that requires treatment and how to act accordingly. These actions should include administration of basic first aid skills and caring for a casualty. The class will gain an understanding of what can cause bleeding and the different types of bleed. Students will discover what can happen internally when bleeding occurs, and the possibility of shock occurring. They will recognise that a severe bleed can be serious and that they must act calmly to get help, assist and monitor a casualty until help arrives.  Learning materials for this session will be PowerPoint presentation, video footage and supported teacher demonstration. Students engaging in role play scenarios will allow students to demonstrate the first aid skills learnt. |

**3. Key words**

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| * **blood** * **plasma** * **red blood cells** * **blood loss** * **severe bleed** * **minor bleed** | * **platelets** * **assess** * **heart** * **arteries** * **veins** * **blood vessels** |

**4. Learning outcomes**

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| **By the end of the lesson, students will be able to:**   * Ensure the safety of themselves and others * Assess a casualty’s condition calmly * Comfort and reassure a casualty who is bleeding * Seek medical help if required |

**5. Details of activities and resources required**

Note: Feel free to choose activities to fit the time you have available. For example, you could do one task from each intro, main input and optional categories.

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| **Introduction** | |
| **Activity** | **Resources required** |
| * Use accompanying PowerPoint presentation | Bleeding |
| * Ask the class if anyone has ever dealt with a casualty who was bleeding | Ratio/number |
| * Explain the learning outcomes of the session | Slide 3 |

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| **Main Input** | |
| **Activity** | **Resources required** |
| **Blood - Have a guess:**   * Ask students to look at questions on PowerPoint and ask students to answer or estimate the answers * Generate discussion to assess their subject knowledge | Slide 4 |
| **Basic anatomy:**   * Use the slide to explain how the heart pumps blood around the body. Explain that blood is made up of lots of different parts that all have a role * Students to see if they can find the missing word on the PowerPoint slide. You can consider using wipe boards to see if students can guess independently or use a show of hands for answers * Students need to understand that the heart pumps the blood around inside the body to keep us alive. The blood contains oxygen that is taken to the organs in our bodies | Slide 5 |
| **Blood mathematics:**   * Print out activity sheet A7 and give to the students. They will complete the worksheet to learn about the contents of blood and the role of blood within the body | Slide 6 |
| **What do you see?**   * Ask students to look at the slide. Look at position of the heart (centre and left of mid chest) look at how blood supply is pumped from the heart and around the body, also noting that the blood returns to be re-oxygenated from the air in our lungs * Use open questions to get students to consider the impact of blood loss, consider what may happen to the breathing rate if there is a reduced amount of blood due to a severe bleed * S&C: less blood to carry oxygen means you would feel short of breath and so breathing rate would increase | Slide 7 |
| **Circulatory system activity:**   * Ask students to use information on A38 to construct a model of the circulatory system * Work should explore the position of the heart (centre and left of mid chest) look at how blood supply is pumped from the heart and around the body, also noting that the blood returns to be re-oxygenated from the air in our lungs | Slide 8 |
| **What do you think?**   * Place students into small groups. Ensure that they understand the difference between a sign and a symptom. The groups must then try to decide which signs and symptoms there may be if they came across a casualty who had either a minor or a severe bleed. Think about the implications of blood loss either internal or external. Ask them to think about what they have learned so far regarding anatomy and see how that would relate to a sign or symptom. (S&C ask them to expand and explain their answers) * You can use paper or wipe boards etc. to get students to state what they think the signs and symptoms of different types of bleeding would be. S&C: Can you group these into categories? * Answers on slide on PowerPoint are not a restricted list, there may be others | Slide 9-10 |
| **Bleeding video:**   * Explain that students should watch this video about bleeding and shock then be prepared to use information from the video afterwards so watch carefully * There is an additional video about management of a nosebleed video that is optional to view - it is available at the end of the PowerPoint presentation | Slide 11 |
| **Your turn:**   * The teacher should demonstrate the key steps to deliver first aid to a casualty who is bleeding. Use the key steps to guide your actions. Students will then have a turn and are given a role play scenario. They are told to imagine they are out in the street with a friend. Ask them to pretend that the friend falls and lands on a sharp object injuring their arm/leg whilst they are playing * Use key steps your turn sheet for severe and minor bleeding to simulate looking after a casualty. Ensure that they remember to reassure the casualty and use decision making skills and rationale to decide if their casualty needs to seek medical attention. Teacher to observe and feedback to students. As an option the student could use peer assessment and score their partners | Slide 12-13 |
| **Questions - group work:**   * Ask students to look at the slide (A9). Ask students to answer the three questions on the slide, write answers on wipe board or paper * Use slide 15 to check answers from question three | 14-15 |
| **Shock:**   * Students should learn what shock is and how it is caused. Explain that a lack of oxygen can cause serious damage to our bodies * Emphasise the signs and symptoms we may see in a casualty who is suffering from shock and that this list is not exclusive of others. Students should be able to notice the signs of shock and understand how they should respond | Slide 16 |
| **Your turn:**   * The teacher should demonstrate the key steps to deliver first aid to a casualty who is suffering from shock, Students will then have a turn and are given a role play scenario * Use key steps your turn sheet for shock to simulate looking after a casualty. Ensure that they remember to reassure the casualty and use decision making skills and rationale to decide if their casualty needs to seek medical attention. Teacher to observe and feedback to students. As an option the student could use peer assessment and score their partners | Slide 17 |
| **Definitions key words:**   * Students should observe the words on the PowerPoint slide and demonstrate their understanding by writing definitions of each word and/or placing them into a sentence * Compare responses and determine best definitions to fit each word | Slide 18 |
| **Check my learning:**   * Students should revisit learning outcomes and self-assess their competencies and confidence with first aid skills relating to a casualty with a bleed | Slide 19 |

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| **Optional Activity** | |
| **Activity** | **Resources required** |
| **Make a stethoscope:**   * Follow steps to make a simple stethoscope. Use this to listen to each other’s hearts before and after exercise. What changes? * Learn how a real stethoscope works and why it is used * A basic model activity but used in conjunction with observing resting heart rates and increased heart rates (after exercise) can be useful | Slide 24, activity sheet A11, items from worksheet |
| **Let’s make blood:**   * Print out the activity sheet to follow instructions on how to make blood * Students should learn basic blood content by using different objects to represent parts of blood (red blood cells, white blood cells, plasma and platelets) | Slide 23, optional activity sheet A7 – making blood, items from worksheet |
| **Create the circulatory system:**   * Task the students with bringing to life the circulatory system They can use the pictures provided, or use their own research, to help make their own model of how blood travels around the human body * Students can use whatever materials they feel necessary. This could be set at a homework task to later show and tell. | Slide 22, optional activity sheet A38– create the circulatory system, items to create models |
| **Blood mathematics:**   * Using worksheet A7 ask students to complete pie chart and interpret data | Slide 21, activity sheet A7 |

**6. Check learning**

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| * Check that the learning outcomes of the session are met from slide 19 * Ask open questions about safety, bleeding, signs and symptoms and infection prevention * What have you learned today? * Score yourself - how confident would you now be if you came across someone that was bleeding after an accident? |

**7. Details of assessment for learning**

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| * Shared learning objectives * Peer assessment * Written feedback | * Questions/answers * Self-assessment * Reflection/evaluation | * Extended questions/answers * Oral feedback * Group work |

**8. Teacher notes**

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| **Use this space for differentiation notes, the role of any classroom support, evaluation notes, etc.** |

**9. Curriculum links**

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