# World War I Primary Resources: Lesson 4

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| Subject: Physical Education |
| Curriculum linksSee curriculum links from England, Wales, Northern Ireland and Scotland |
| Cross curricular opportunities: History, Science, Numeracy |
| Year Group/Class: |
| Date of lesson: |

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| Background to learning |
| Read the following so you understand the basic role of bacteria and macrophages and their relevance to life in the First World War trenches. These will form the two sides of the PE activity which follows.Also view the section of the Operation Ouch film that runs from 07:26 to 11:07. Ask pupils to imagine having a cut on their skin. Normally it heals, quickly and without trouble. But in some cases it can take much longer, and may even become infected. If you were to look at what is happening under a powerful microscope you would see a battle taking place. On one side of the battle are helpful macrophages (Greek for "big eater") which are cells in your body that travel to a cut or wound. Their job is to "eat up" any dirt, germs or harmful substances and stop them causing damage to your body or slowing the healing process.On the other side of the battle are the enemy bacteria which can cause infections that might make you ill, sometimes very ill. In really bad cases a wounded person might have to have their leg or arm amputated as the only way to stop the infection spreading. We now have medicines called antibiotics which fight bacterial infections very effectively. But these weren't available at the time of the First World War. What is more, soldiers in the war were often wet, had poor quality food, and were tired through lack of sleep and high levels of stress. All those things weaken the immune system, making it more likely that the macrophages will struggle in the battle against the bacteria. |
| Learning objectives |
| * Develop and apply the skills needed to work with others & demonstrate tactics within competition.
* Apply basic principles suitable for attacking & defending
* Improve catching and throwing ball skills.
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| Success Criteria |
| * To be able to work with others as a team
* To send and receive a ball with increasing confidence and control
* Describe how macrophages help fight off infection and how bacteria will try to get into the body, through a cut or wound and cause illness.
* Explain some of the factors, such as poor food and lack of sleep, that influence the outcome of the "battle" between macrophages and bacteria.
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| Key vocabulary |
| * Attacking/ Defending
* Sending/ receiving
* Tactics
* Macrophages
* Bacteria
* Antibodies – help the macrophages fight bacteria.
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| Resources |
| * 50 tennis balls, 7 hoops, Bibs/ bands, 3 soft balls, 3 large mats
* White board/ lap top.
* Operation ouch WWI film section 07:26 – 11:07
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| SEQUENCE OF LESSON – (based on 40 minute lesson) |
| Timings5 minutes­ | IntroductionOperation ouch WWI film section 07:26 – 11:07Read the ‘Background to learning’ on Macrophages & Bacteria  |
| 10 minutes­ | Warm Up: Rob the Trench**(Equipment needed – 50 Tennis balls / 7 hoops)**Set the scene – the hoops are the trenches, the balls represent antibodies.6 groups of 5 children standing behind the 6 hoops which have been evenly spaced around the room. Balls (Antibodies) in hoop (trench) in centre of room.(Aim of game is for each team to collect as many balls as they can)To start, place a hoop in the centre of room with all the balls in it. When the teacher blows a whistle one person from each group has to run to the centre hoop and pick up a ball and return it to their own team hoop. At this point the next person in the line can go from that group.When the centre hoop is empty children may take the balls (antibodies) from any other trench. No interference from other players is allowed. Only one ball (antibody) allowed to be carried at a time. The number of balls (antibodies) in each hoop (trench) at the end of the activity (suggest 3-4 minutes) are counted.Emphasise that those groups that have more balls (antibodies) in their trench is very good news for the soldiers. They are more likely to be healthy and survive.  |
| 20 minutes  | Group or class activities **Bacteria ball (rules of dodge ball)**Equipment needed – enough bibs/bands for the whole class to use, 3 soft balls, mats to be put along the centre of the hall.Place the mats down the centre of the hall. These are signified as "no man's land", land that neither side holds and which is too dangerous to enter. Players must never cross the dividing line. They must stay in their area of the room. Divide the class into two even teams - macrophages versus bacteria.First team to eliminate the opposing team by reducing it to just one player wins that round. Suggest playing the best of five roundsTo start the game both teams must line up at the back of their area and the 3 balls are placed in a line along the dividing line which is the middle of the mats (this is the only time that the mats can be walked on).When the whistle is blown the players from both teams have to run into the middle to retrieve a ball. Whoever gets there first takes the ball back into their own team area.To switch an opposing player onto your side (macrophage or bacteria) you must * hit them with a ball below the knee; or
* catch a ball they have thrown.

Note the following:* If the ball hits above the knee then the player has not been hit and the thrower has to join the opposing side.

When there is only one person left in a team the game is over and the other team has won. To start the game again the balls go back into the middle and the team that won gets a point.  |
| Time available | Plenary Warm down stretching exercisesAsk pupils what they have learnt from this lesson* What weakened the immune systems of soldiers in the trenches? (They were wet, had poor diets and were tired through lack of sleep and high levels of stress)
* What do macrophages do? (Their job is to "eat up" any dirt, germs or harmful substances and stop them causing damage to your body or slowing the healing process.)
* If the macrophage team in the bacteria ball activity had been wet, tired and stressed, how would their performance have been affected?

Extension ExerciseThe Red Cross seeks to preserve a measure of humanity in the midst of war and its work is based on the guiding principle that even wars have limits. The Red Cross cares for prisoners, the wounded and sick, and civilians affected by conflict. The Red Cross is impartial, makes no discrimination as to nationality, race, religious beliefs, class or political opinions and endeavours to relieve the suffering of individuals, being guided solely by their needs, and to give priority to the most urgent cases of distress.Start a discussion around the following points.* How important they think it is for wounded soldiers to have access to medical care?
* Does it matter what side they are on?
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| Opportunities for Assessment  | Differentiation |
| * Speaking & Listening
* Observations
 | * Task
* Outcome
* Questioning
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| Evaluation |  |
| What worked really well in my lesson?What do I want to focus on to improve future lessons? |