

The Animals' War

History KS3: Lesson 5

Animals and poisonous gas in WWI





History KS3

Lesson 5: Animals and poisonous gas in WWI



Lesson Plan Duration: one hour

■ Context of Lesson/Key Ideas:

The Centenary of the First World War is an ideal opportunity to look at the role of animals during this time. Poisonous gas was a new form of warfare used in WWI, which affected animals as well as troops. Animals were used for the first time in experiments into the use of poisonous gas.

■ Aims and Objectives:

- Know that poisonous gas was a new weapon developed and used by both sides in an attempt to overcome the stalemate of trench warfare on the Western Front.
- Understand that measures were developed to protect both men and animals against poisonous gas.
- Know that animals were used in experiments to research into the effects of poisonous gas.

■ National Curriculum coverage:

- KSt3: The First World War. To inspire pupils' curiosity to know more about the past. To equip pupils to ask perceptive questions, think critically, weigh evidence, sift arguments, and develop perspective and judgement.

■ Resources (available as downloads from website):

- 1 PowerPoint 4: *Animals and Poisonous Gas*
- 2 Sources:
 - a. Diagram 1: Experiment XVII at the Royal Engineers Experimental Station 1917*
 - b. Diagram 2: Experiment XVII at the Royal Engineers Experimental Station 1917*
 - c. Photo of 4.5 howitzer
- 3 Resource sheet 1: Questions
- 4 Resource sheet 2: Answers

* Contact the Animal Aid office for free laminated colour copies of Sources 2a and 2b (Diagrams 1 and 2).

■ Learning tasks:

Starter (15 minutes)

- Display the aerial photo of gas cloud released from trench on whiteboard (the second slide in the *Animals and Poisonous Gas* PowerPoint).
- Discuss what this shows.
- Explain that deadly poison (chlorine) gas was used for the first time at the Second Battle of Ypres in April 1915. Gas was delivered from pressurised cylinders dug into the German front line. French soldiers had no gas masks and fled in panic. Picture shows gas cloud being blown by wind towards opposing trenches.
- Pose the question: What might have been the problem with the method of delivery? (It is dependent on wind direction, which may change – as it did when the British army first used gas later in September 1915). See slide 2 showing gas canisters in the *Animals and Poisonous Gas* PowerPoint.



- Point out that later in the war, gas was delivered using artillery shells and that gas masks were developed for protection.
- Show the *Animals and Poisonous Gas* PowerPoint slides 4 - 10 showing the development of gas masks for soldiers as well as masks for dogs, horses and pigeons. Later more 'effective' types of gas were developed (phosgene and mustard) – slides 11 and 13 show mustard gas injuries to soldiers, dogs and horses.

Main (40 minutes)

- Ask students working in pairs to study sources 2a and 2b* and 2c (slide 15 in the PowerPoint) and to use them to answer the questions on Resource sheet 1. NB: these resources need to be supplied in colour to enable students to answer question 10.

* Sources 2a and 2b (Diagrams 1 and 2) are illustrated on slide 14 in the PowerPoint, and are available as downloads from our website. You can also contact the Animal Aid office for **free laminated colour copies**.

Plenary (10 minutes)

- Discuss the sources and what they tell us. What questions do they raise? How might you find out more about the use of animals at the Royal Engineers Experimental Station?

Homework/extension

- a) Write an account by a horse artillery soldier, cavalry trooper, or ASC driver of a gas attack, describing what it was like.
- or
- b) Find out what you can about the work of the Royal Engineers Experimental Station in WWI.
- or
- c) Find out how animals are used in warfare experiments today and write a report on how the use of animals in research has changed.



Resource sheet 1 Questions on sources 2a and 2b

1. What do these two sources show?
2. When did the experiment take place?
3. What are the features shown by the parallel lines?
4. Approximately how long was the section of trench involved in the experiment?
5. How was the gas delivered? - look at Diagram 1 (source 2a), and photo (source 2c)
6. In what direction was the wind blowing?
7. What do you think the blue dots on Diagram 1 (source 2a) represent?
8. What do you think the sections of the trench marked by dashed lines are?
9. What is the evidence for your answer to the last question?
10. Use Diagram 2 (Source 2b) to complete this table:

	Animals in the experiments	Number of animals who died	Number of animals recovered	Number of animals survived	Total number of animals used
Forward trench	Goats				
	Rats				
	Total (Forward trench)				
Rear trench	Cats				
	Goats				
	Total (Rear trench)				
	Total (Both trenches)				

11. Was it safer to be in the rear or forward trenches?
12. Why might this be the case?
13. Why were animals used in this experiment?
14. Do you think that the Royal Engineers Experimental Station was justified in using animals in this experiment? Give your reasons.
15. How else might the army have found out about the effects of poisonous gas on soldiers?



Resource sheet 2 Answers to Questions on Sources 2a and 2b

1. What do these two sources show?
(Experiments at Royal Engineers Experimental Station into effectiveness of gas on a mock-up of trench system)
2. When did the experiment take place? **(August 20 1917)**
3. What are the features shown by the parallel lines? **(Trenches)**
4. Approximately how long was the section of trench involved in the experiment?
(120 feet)
5. How was the gas delivered? - look at Diagram 1 (source 2a), and photo (source 2c)
(Shells fired by 4.5 inch howitzer)
6. In what direction was the wind blowing? **(NE)**
7. What do you think the blue dots on Diagram 1(source 2a) represent?
(The positions where the shells fell)
8. What do you think the sections of the trench marked by dashed lines are?
(Possibly dugouts)
9. What is the evidence for your answer to the last question?
(The animals survived in these areas, whereas most animals outside in the trench died)
10. **(Table):**

	Animals in the experiments	Number of animals who died	Number of animals recovered	Number of animals survived	Total number of animals used
Forward trench	Goats	7	2	3	12
	Rats	7	1	4	12
	Total (Forward trench)	14	3	7	24
Rear trench	Cats	0	3	1	4
	Goats	0	1	4	5
	Total (Rear trench)	0	4	5	9
	Total (Both trenches)	14	7	12	33



11. Was it safer to be in the rear or forward trenches?
(Rear)
12. Why might this be the case?
(The gas cloud would have dispersed and been less effective)
13. Why were animals used in this experiment?
(To study the effects of poisonous gas on living creatures in trench situation)
14. Do you think that the Royal Engineers Experimental Station was justified in using animals in this experiment? Give your reasons.
(NB chlorine gas was being used on the Western Front as early as April 1915)
15. How else might the army have found out about the effects of poisonous gas on soldiers?
(By studying soldiers already affected by gas on the battlefield)