



Teacher's Guide Answers

Assessment

1. (c) Yes, the police use tear gas or pepper spray for crowd control
2. (b) 100,000
3. (a) chlorine gas
4. (b) Because the symptoms of mustard gas take 24 hours to develop
5. (d) none of these
6. (c) phosgene
7. (a) decreased, more safety measures like gas masks and goggles
8. (a) expand, less

Lesson 1: Dispersal Location

Purpose: Students study how the location of a gas canister attack affects the health of nearby military units.

Table 1.

	Effects on Unit 1	Effects on Unit 2	Effects on Unit 3	Effects on Unit 4	Effects on Unit 5
Canister 1	<i>Incapacitated</i>	<i>Unit Unharmed</i>	<i>Unit Unharmed</i>	<i>Unit Unharmed</i>	<i>Unit Unharmed</i>
Canister 2	<i>Unit Unharmed</i>	<i>Incapacitated</i>	<i>Unit Unharmed</i>	<i>Unit Unharmed</i>	<i>Unit Unharmed</i>
Canister 3	<i>Unit Unharmed</i>	<i>Unit Unharmed</i>	<i>Incapacitated</i>	<i>Unit Unharmed</i>	<i>Unit Unharmed</i>
Canister 4	<i>Unit Unharmed</i>	<i>Unit Unharmed</i>	<i>Unit Unharmed</i>	<i>Incapacitated</i>	<i>Unit Unharmed</i>
Canister 5	<i>Unit Unharmed</i>	<i>Unit Unharmed</i>	<i>Unit Unharmed</i>	<i>Unit Unharmed</i>	<i>Incapacitated</i>

Do You Understand?

1. Which canister was most effective at delivering the chemical agent?
All canisters were equally effective at incapacitating the unit directly across from the canister.
2. Explain how the location of the canister impacted the soldiers.
The location of the canister directly corresponded with which unit was incapacitated.

Lesson 2: How do the different types of gas affect soldiers?

Purpose: Students investigate the relationship between the type of gas used in a gas attack and how soldiers are affected by the gas.

Table 1.

	Effects on Unit 1	Effects on Unit 2	Effects on Unit 3	Effects on Unit 4	Effects on Unit 5
Chlorine Gas	<i>Unit Unharmed</i>	<i>Unit Unharmed</i>	<i>Incapacitated</i>	<i>Unit Unharmed</i>	<i>Unit Unharmed</i>
CS (Tear Gas)	<i>Unit Unharmed</i>	<i>Temporarily Incapacitated</i>	<i>Temporarily Incapacitated</i>	<i>Temporarily Incapacitated</i>	<i>Unit Unharmed</i>
Mustard Gas	<i>Unit Unharmed</i>	<i>Incapacitated</i>	<i>Incapacitated</i>	<i>Incapacitated</i>	<i>Unit Unharmed</i>
Phosgene Gas	<i>Unit Unharmed</i>	<i>Unit Unharmed</i>	<i>Incapacitated</i>	<i>Unit Unharmed</i>	<i>Unit Unharmed</i>
Sarin Gas	<i>Incapacitated</i>	<i>Permanently Incapacitated</i>	<i>Permanently Incapacitated</i>	<i>Permanently Incapacitated</i>	<i>Incapacitated</i>

Do You Understand?

1. Which gas had the most effect on the soldiers?
The Sarin gas had the most effect on the soldiers.

Lesson 3: How does the amount of chemical agent used affect troops?

Purpose: Students complete a study to determine how the amount of gas used in a gas attack affects how soldiers are affected by the gas.

Table 1.

	Effects on Unit 1	Effects on Unit 2	Effects on Unit 3	Effects on Unit 4	Effects on Unit 5
Sarin Gas 11 kg.	<i>Incapacitated</i>	<i>Permanently Incapacitated</i>	<i>Permanently Incapacitated</i>	<i>Permanently Incapacitated</i>	<i>Incapacitated</i>
Sarin Gas 20 kg.	<i>Permanently Incapacitated</i>	<i>Permanently Incapacitated</i>	<i>Dead</i>	<i>Permanently Incapacitated</i>	<i>Permanently Incapacitated</i>
Sarin Gas 50 kg.	<i>Dead</i>	<i>Dead</i>	<i>Dead</i>	<i>Dead</i>	<i>Dead</i>

Do You Understand?

1. What was the most effective amount of gas to use on the soldiers?
50 kg was the most effective amount of gas to use on the soldiers.