



# Trench Attack

**STEM Sims**

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

Now that you have tested both the dispersal location and types of gas used in chemical warfare, it is time to test the most effective amount of gas to use.

### Doing the Science

1. Start the Trench Attack Simulation by clicking on the “Sim” tab.
2. Click on the arrow in the “Chemical” box and select “Sarin”.
3. Next, click on the arrow in the “Amount” box and select 11kg.
4. Click on the third blue chemical canister on the left side of the screen to release the gas.
5. To view the damage done by the gas release, click on the first soldier (the green one at the top of the screen), and record the effects on the unit in Table 1 below.
6. Click on the remaining soldiers and record in Table 1 the effects of the gas on the units.
7. To test different amounts of gas and the effect on the soldiers, first click the green "Reset" button.
8. Repeat the process until all the gas amounts have been tested. Make sure to select the “Reset” button before testing each chemical amount, and to record your data in Table 1.

**Table 1.**

	<b>Effects on Unit 1</b>	<b>Effects on Unit 2</b>	<b>Effects on Unit 3</b>	<b>Effects on Unit 4</b>	<b>Effects on Unit 5</b>
<b>Sarin Gas 11 kg.</b>					
<b>Sarin Gas 20 kg.</b>					
<b>Sarin Gas 50 kg.</b>					

### Do You Understand?

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