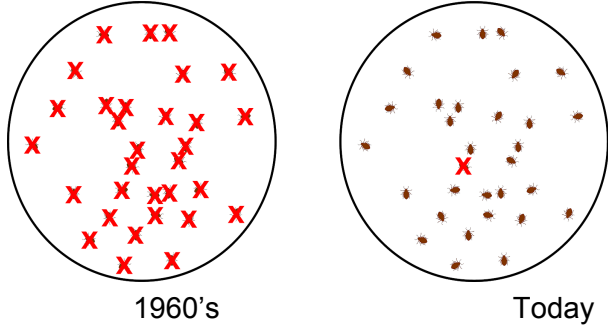
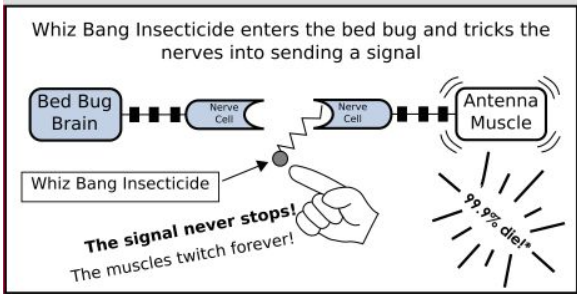
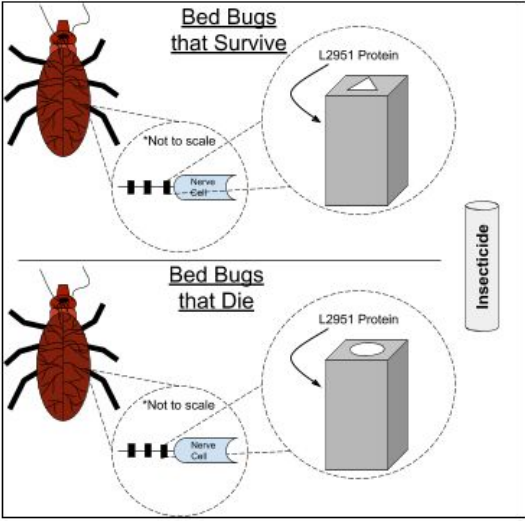
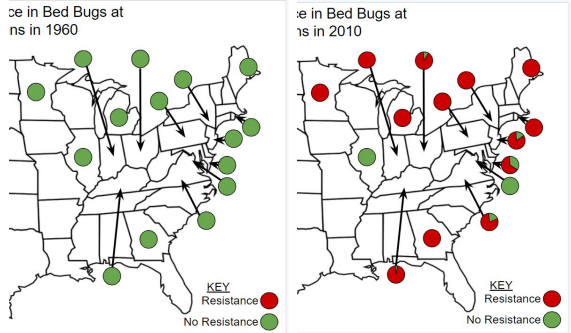


# Whiz Bang Guide Assignment #3

**Claim:** Bed bug populations **adapt** to the introduction of insecticides to their environment.

Reasoning:	Insecticide	Evidence from unit activities:	Explain how evidence&reasoning are connected:
<p>There is a <b>trait</b> in the population that makes it more likely for a bed bug to survive and reproduce.</p>	Invade	<p>Scientist Experiments</p>  <p>1960's Today</p>	<p>The petri dishes show that there is a trait that allows bed bugs to survive Invade spray because...</p>
	Whiz Bang	<p>Whiz Bang Advertisement</p>  <p>Whiz Bang Insecticide enters the bed bug and tricks the nerves into sending a signal</p> <p>Bed Bug Brain Nerve Cell Nerve Cell Antenna Muscle</p> <p>Whiz Bang Insecticide</p> <p>The signal never stops! The muscles twitch forever!</p> <p>99.9% die!</p>	<p>The Whiz Bang Ad shows that there is a trait that allows bed bugs to survive Whiz Bang spray because...</p>

<p>The trait is <b>heritable</b>.</p>	<p>Invade</p>		<p>We know that the resistance trait is heritable because it is caused by the structure of the protein, L2951. Different shapes in the protein come from the bed bug's genetic code, which they get from:</p>
	<p>Whiz Bang</p>	<p>We made a prediction that since the different protein shapes caused resistance from Invade, they are probably going to cause resistance from Whiz Bang.</p>	<p>What could cause a new protein shape to occur in the population?</p>
<p>The <b>distribution</b> of the trait throughout bed bug populations changes.</p>	<p>Invade</p>	 <p>1960 (No resistance)      Today (Resistance)</p>	<p>The map shows that resistance to Invade has become _____ common at most of the tested locations.</p>
	<p>Whiz Bang</p>	<p>None - We will need to look at Invade's pattern and make a prediction for Terry.</p>	<p>According to the data collected on Invade, I expect the distribution of the resistance trait for Whiz Bang will:</p>

