

<b>Harvard Summer Program Immunology Project Resource Information Form</b>	
<b>Title</b>	Immunity and Bio-terrorism
<b>Resource Type</b>	<input type="checkbox"/> Lesson Plan <input checked="" type="checkbox"/> Activity <input type="checkbox"/> Lab Activity <input type="checkbox"/> Web-quest
<b>Description</b>	Immunity and Bio-terrorism is a project that allows a teacher to use the topic of Bio-terrorism to introduce interest microbes. Students investigate the topic through an assigned website. The teacher can then study bacteria and virus differences and/or proceed into further depth into immunity.
<b>Author(s)</b>	Sandi Haracz Gil
<b>Author Institution(s)</b>	Harvard University
<b>Objective</b>	To use a current topic to begin a study of bacterial and viral microbes To be able to use the topic to stimulate further study in immunity.
<b>Key Concepts</b>	Bio-terrorism, characteristics of bacteria and viruses, principles of immunity
<b>Student Prep</b>	None
<b>Materials</b>	Computer with internet access Materials for creating bacterial and viral model (optional) Pen or pencil Paper
<b>Grade level(s)</b>	Grade 10; advanced for going further
<b>Teacher Prep Time</b>	30 minutes to run through the program
<b>Class Time</b>	One class to cover the bio-terrorism One class to review bacteria and virus Going further: 1-3 class periods
<b>National Standards</b>	Science –content standard-The severity of a disease is dependent on many factors. Science in personal/social perspectives-natural and human induced hazards
<b>State Standards</b>	MA frameworks 2.1 Relate cell parts/organelles 4.2 Human anatomy-describe how the function of individual systems are integrated to maintain a homeostatic balance in the body

<b>Sources</b>	<p><a href="http://www.bioedonline.org">www.bioedonline.org</a>(<a href="#">Bio-terrorism</a>, Superflu being brewed in the lab) <a href="http://www.biology.eku.edu">www.biology.eku.edu</a> (Bio 301 Blood and Body Defenses) <a href="http://www.biochem3d.com/anthrx.html">www.biochem3d.com/anthrx.html</a> <a href="http://www.pbs.org/wgbh/nova/aids/immune.html">www.pbs.org/wgbh/nova/aids/immune.html</a> Newscientst.com/hottopics/bioterrorism (Anthrax)</p>
<b>References</b>	<p><a href="http://web.ukonline.co.uk/webwise/spinneret/microbes/bacter.html">web.ukonline.co.uk/webwise/spinneret/microbes/bacter.html</a></p>
<b>Assessment</b>	<p>included questions sheet page for bacterial identification</p>