**Measles Outbreak – To Vaccinate or Not?**

Open and watch the simulation showing how the measles outbreak spreads when kids get vaccinated – and when they don't (<http://www.theguardian.com/society/ng-interactive/2015/feb/05/-sp-watch-how-measles-outbreak-spreads-when-kids-get-vaccinated>). Read the accompanying article answer the following questions.

* **Protected or Not?**

Based on the simulation that you watched,

1. How many communities (out of the 10 shown) were protected? (Level: Introductory)
2. In the protected communities what was percentage of individuals vaccinated? Report for all communities in the simulation. (Level: Introductory)
3. Click on the red button to “Run simulation again”. Are the same populations protected in this run of the simulation? (Level: Introductory)
4. Is/are any of the communities always protected (based on >3 runs of the simulation)? Which one(s)? (Level: Introductory)
5. Based on this simulation and accompanying article what do you think “Herd Immunity” is? (Level: Introductory)
6. Based on this simulation who do you think vaccination protects – the vaccinated individual or his/her community? Why is this important? Explain your answer with reasoning/facts from the simulation(s) and/or article (Level: advanced)