Computer Models in Science

A Common STEM Thread

**Models shown during the Presentation**

NetLogo Models

* Bug Hunt Speeds - <http://ccl.northwestern.edu/netlogo/models/BugHuntSpeeds>
* Bird Breeder - <http://ccl.northwestern.edu/netlogo/models/BirdBreeder>
* Bug Hunt Camouflage - <http://ccl.northwestern.edu/netlogo/models/BugHuntCamouflage>
* Climate Change - <http://ccl.northwestern.edu/netlogo/models/ClimateChange>
* Virus - <http://www.shodor.org/media/content//main/featured/DiseaseModel/applet>

(download simpler version: <http://www.psc.edu/eot/k12/mod2b.intro.agentmodeling.php> )

* Rabbits and Grass - <http://ccl.northwestern.edu/netlogo/models/RabbitsGrassWeeds>

Others

* Static Electricity – PhET - <http://phet.colorado.edu/en/simulation/balloons>
* Virtual Ballooning - <http://www.windows2universe.org/earth/Atmosphere/balloon_atmostrata.html>

Butterfly genetics - <http://mvhs.shodor.org/activities/biology/NetLogoModels/butterflyintro.html>

**Collections**

* NetLogo community models- <http://ccl.northwestern.edu/netlogo/models/community/>
* Excelets - <http://academic.pgcc.edu/~ssinex/excelets/> (see three links to right)
* MVHS - [http://mvhs.mbhs.edu](http://mvhs.mbhs.edu/) or [http://mvhs.shodor.edu](http://mvhs.shodor.edu/)
* CAST – models developed by Pittsburgh area teachers using the same tools – has lesson plans
  + <http://www.psc.edu/eot/k12/cast.php>

Web-based Models/ or free downloads

* PhET - <http://phet.colorado.edu/>
* Shodor Interactivate <http://www.shodor.org/interactivate/>
* Physlets <http://webphysics.davidson.edu/applets/applets.html>
* Applets – one collection (there are many) <http://www.edinformatics.com/il/il_K12.htm>
* Concord Consortium <http://www.concord.org/>
* Wolfram Demonstration Projects <http://demonstrations.wolfram.com/>

Annotated website

* Curry Science Education Collection of Simulations
  + <http://www.teacherlink.org/content/science/instructional/activities/simulations/home.html>