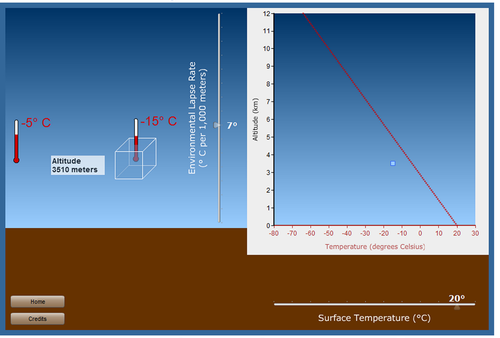
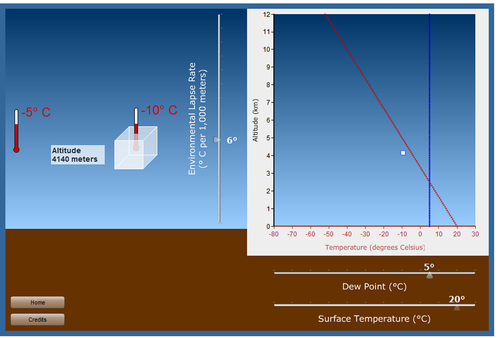
Dry Air Parcel

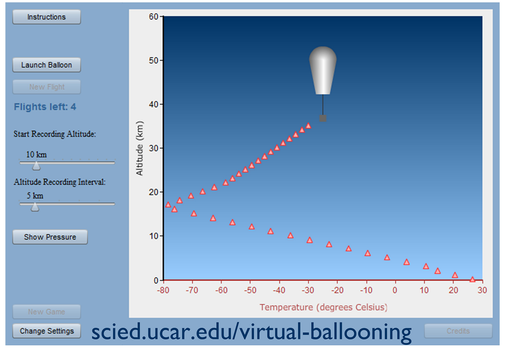


Moist Air Parcel



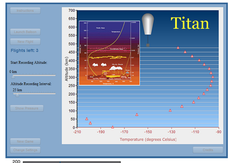
http://scied.ucar.edu/air-parcel-simulation

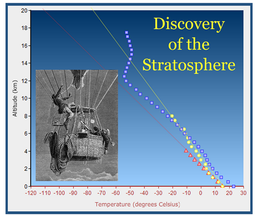
Virtual Ballooning

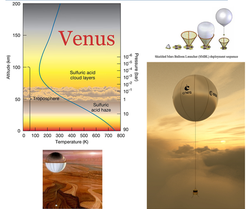


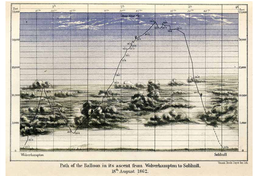
scied.ucar.edu/virtual-ballooning

On other worlds...

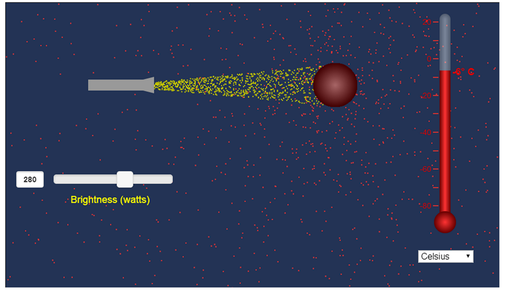




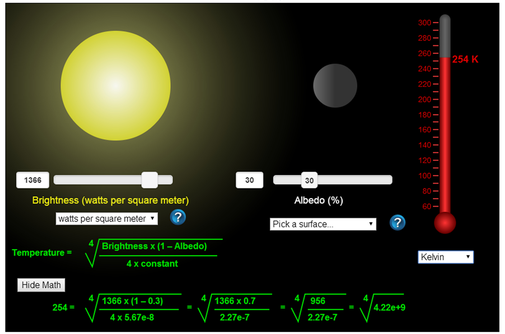




Blackbody Radiator

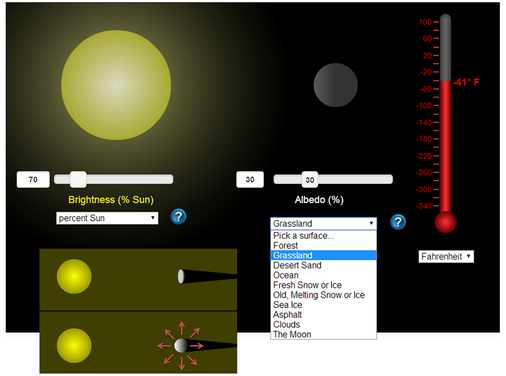


Earth Energy Balance



scied.ucar.edu/planetary-energy-balance

Earth Energy Balance

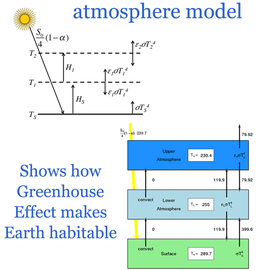


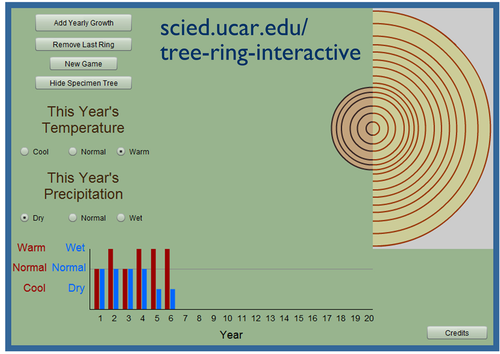
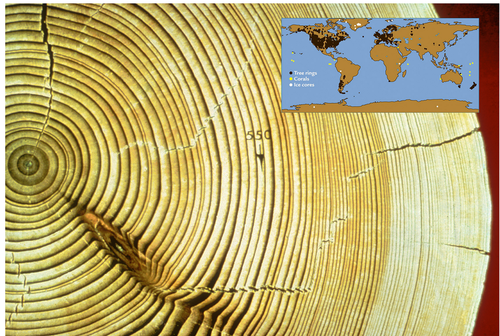
Next Steps

Move planet closer to Sun or further away

Compare to other planets in our solar system (Venus & Mars) and Exoplanets (with different stars)

Add simple 2-layer atmosphere model



Shows how Greenhouse Effect makes Earth habitable

Paleoclimate - Tree Rings Dendrochronology