

Red queens & cheshire cats: viruses in ocean microbes

Number of Students: unlimited

Age group: any

Time: 25-30 mins

Goals:

- Introduce viruses of marine microbes
- Have students brainstorm ways that microbes might evade viruses
- Explain two important theories of viral infection and the haploid-diploid life cycle in *Emiliana huxleyi*, the Red Queen and Cheshire Cat hypotheses

Plan:

- 0 - 5 minutes in
 - Introduction; live poll to see what knowledge level is on phytoplankton, coccolithophores, viruses
- 5 - 10 minutes in
 - Introduce *Emiliana huxleyi* and its haploid-diploid life cycle
- 10 - 20 minutes in
 - Talk about the Red Queen & Cheshire cat hypotheses
- 20 - 30 minutes in
 - Talk about how marine viruses impact global primary productivity
 - Debrief; send link to feedback poll