

LENScience Senior Biology Seminar Series Teacher Update Number 12– June 6th, 2011

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May 6 - 12

- Hold a post-seminar workshop for your students
- Continue to support and encourage students to enter Seminar 4 Challenge responses on the wiki
- Keep a watch on the wiki to see how your students are participating and the responses they are getting from the science and science education team.

Seminar 4 Update

A warm welcome to Kerikeri High School who joined the seminar live for the first time last week with impressive contributions to the LiveChat discussion.

There was a lively discussion amongst the online students during seminar 4. We hope that this was similarly occurring in your class groups. The discussion highlighted the challenge presented to students by the scale of biological evolution and provided a reminder that many students do not have a strong understanding of the concept of evolutionary fitness. While many students are picking up on the idea of looking for reproductive success - some are not seeing that for evolutionary fitness, the offspring must survive (and be nurtured) through to reproductive success in order for the genes to be passed on. We suggest that this would be worth exploring in class.

Game Theory

Cooperative behaviour and exploration of the link between evolution of the brain and the development of group interaction was clearly of interest to students. Game theory also captured their interest. There are a number of good web sites exploring Game Theory.

- [What is Game Theory, David K. Levine, Department of Economics, UCLA](#)
- [Game Theory, Benjamin Polak, Yale.](#) (A series of open access lectures)
- [Game Theory Encyclopaedia of Philosophy](#) (Open Access)

If you have not explored using the Prisoner's Dilemma with your Y13 classes—this is worthwhile and there are some good interactive web sites available where the students can actively engage in this.

- [Prisoner's Dilemma](#) (interactive game site)
- [Prisoner's Dilemma, Stanford Encyclopaedia of Philosophy](#) (Open Access)

Encourage cooperative behaviour: We do hope that the discussion around cooperative behaviour may encourage students to cooperate and work together to develop contributions to the wiki!

Resources for Seminar 5 will be available at the end of this week.