



E. coli on the move

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Title of project: E. coli on the move.

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Abstract:

Lynn Grove High School in Great Yarmouth, UK has been awarded a Royal Society partnership grant. Lynn Grove pupils aged between 11 and 16 years will carry out an investigation collaborating with scientists at the John Innes Centre in Norwich, UK to investigate the distribution of E.coli and other coliform bacteria within a school. The information will be used as an evidence base to educate pupils about the transmission of microbes and about methods of control.

Through this work pupils will gain an appreciation of the diversity of microbial biochemistry and the chemistry behind chromogenic detection methodologies for specific bacterial enzymes.

Inferences from the use of diagnostic selective media will be confirmed by carrying out DNA isolation and PCR to identify the genes responsible for the biochemical reactions. PCR will also be used to identify species of coliforms by reference to genomic sequence databases.

These techniques will allow pupils to look into an unseen world in a way which has direct relevance to their everyday lives. Furthermore this partnership study will demonstrate to pupils that solving scientific questions requires the integration of a variety of scientific disciplines.

The project will run from January 2012 until June 2012. We will present our preliminary results from the investigation and outline our future plans.