

MiSAC competition 2013

For KS3 and KS4 (S1/2 and S3/4 in Scotland)

Facebug: a social media network for microbes

Aims of the competition

- 1) To create a social network page for *one* species of microbe.
- 2) To improve understanding of how microbes work in human health and disease, and interact with one another.

Microbes are remarkable for their ability to survive and grow in an enormous range of situations. They are successful because they are able to use diverse ways of benefiting from their surroundings, including interaction with other microbes, and from the occurrence of spontaneous mutations. However, life for microbes is not always plain sailing; obstacles often get in the way - such as all sorts of defence mechanisms, inhibitory effects of various substances, competition from other microbes, and having to rely on being spread successfully from place to place.

The activities of microbes affect everyday life in many ways ranging through health, disease, food, agriculture and pollution, bringing either benefit or harm. A novel way of finding out more about the life of microbes is to imagine that they use their characteristics and 'friendship groups' to communicate through a social media network.

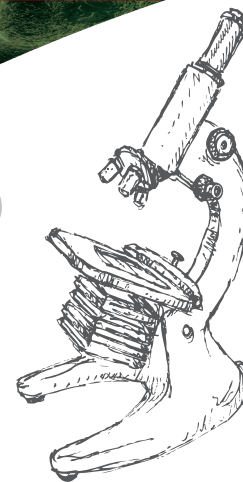
Prizes

School	Student
1st £250	1st £50
2nd £125	2nd £30
3rd £70	3rd £20

A certificate will be awarded to each student submitting an entry of scientific merit. Each school will also receive some microbiological teaching materials.

Results

The results will be published on www.misac.org.uk where winning entries and a report of the 2012 competition can be viewed.



Attention: Head of Biology

Object of the competition

Produce a social media profile for **one** species of microbe involved in **one** aspect of human health of your choice, such as an infectious disease (cause, treatment or prevention), food poisoning, or health foods (probiotics).

The profile must be submitted on paper as hard copy, may be produced either by hand or computer, and must be one A3 sheet (or two A4 sheets attached side-by-side) using one side of the paper only. In common with social media web sites, the profile must consist of two 'pages' or parts. The first 'page' should introduce your chosen microbe and aspect with some basic information and the second one should give more details. Some suggestions for inclusion are given below.

- The first 'page' should provide a profile of your chosen microbe, stating its Latin name, e.g. *Escherichia coli* or *Penicillium chrysogenum*, the type of microbe it is (e.g. bacterium, fungus, etc.), where it is found, and an indication of the importance of its role in the aspect you have chosen. This could be followed by a timeline ('wall') showing the discovery of the microbe (who, when, from where), followed by more-recently discovered information about its importance.
- The second 'page' should give more detail, e.g. the chosen microbe's life, job, relationships, friends and travels. This could be done by offering more information about the characteristic features of the microbe (e.g. structure, physiology), its habitat(s), its presence and role in the chosen aspect, why and how it is successful (e.g. what it feeds on, overcomes problems), reference to its 'friends' or 'relations', and the harm or benefits that result.

What makes a good social networking page?

Interesting and widely-ranging information is needed, displayed in a variety of ways and eye-catchingly illustrated with photographs, drawings, statistics or other data. The layout of a commonly-used social networking system is a good guide to designing the pages. Although those of you with social networking experience will be familiar with posting check-ins, status updates, posts on friends' walls, blocked lists and photo albums, the pages do not have to be that sophisticated (for guidance see <http://tiny.cc/3ymkkw>, particularly Section 7). Plagiarism will be penalised; therefore use your own words – and remember that social networking is meant to be fun. Use only reputable web sites for your research because information available on-line has not necessarily been checked for accuracy. See www.open.ac.uk/webguide for tips on using the internet.

Closing date: 1 March 2013





Rules

- Judging will be based on two entry groups: Key Stage 3 (S1/2) and Key Stage 4 (S3/4).
- Each entry must be submitted on paper, on one A3 sheet (or two A4 sheets attached side-by-side), using one side of the paper only, and may be produced either by hand or computer.
- Entries may be created either by individuals or small groups of no more than 4 students.
- A maximum of 10 entries per school in each entry group is permitted.
- Only entries that conform to the competition rules and show scientific merit will be considered.
- Evidence of plagiarism, such as downloading text directly from web sites without modification and interpretation, will result in disqualification.
- Account will be taken of originality, presentation and effectiveness in communication; take note of the requirements and suggestions given on the front page.
- Each entry must be clearly labelled on the back with the name and address of the school, teacher's name, full name of each contributing student and the entry group Key Stage 3 (S1/2) or Key Stage 4 (S3/4).
- Entries cannot be returned and may be used for promotional purposes by MiSAC and the competition sponsor.
- **Closing date for entries: 1 March 2013.**

Entry form

Name of teacher:

Tel no:

Email:

KS3, S1/2 entry group

Name(s) of pupil(s)

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Name & address of school

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KS4, S3/4 entry group

Name(s) of pupil(s)

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

How did you learn of the competition?

Please tick

MiSAC web site Mailing to school Personal mailing ASE conference Other

Don't forget to keep a copy of the rules and entry form!

Address for entries: MiSAC Competition, c/o NCBE, University of Reading, 2 Earley Gate, Whiteknights Road, Reading RG6 6AU.