

FRANCIS GALTON QUESTIONNAIRE

In about 1870, Francis Galton conducted a survey by asking well-known scientists to fill out a questionnaire on which he based his '*English Men of Science*'. Maxwell filled out Galton's questionnaire himself.

This is what Maxwell said about himself, his mother and father.

Height;

Self:- 5 feet 8 inches tall.

Health;

Self:- Often laid up before aet 19, never since; never had a headache.

Father:- Never had a headache; want of circulation latterly, died aet. 64.

Mother:- Excellent health till aet. 41, she died the year after.

Mental Peculiarities;

Self: Fond of mathematical instruments and delighted with the forms of regular figures and curves of all sorts.

Strong mechanical power. Extremely small practical business.

Strongly affected by music when a child, could not tell whether it was pleasant or painful, but rather the latter; never forget melodies or the words belonging to them and these run through the mind at all times and not merely when the tunes are in fashion; can play on no instrument and never received instruction in music.

Great continuity and steadiness ; gratitude and resentment weak; *στοργη* pretty strong (note:- *the Greek word στοργη = affection, fondness, tenderness or love*); not gregarious; thoughts occupied more with things than with persons, social affections limited in range; given to theological ideas and not reticent about them; ... constructiveness of imagination; foresight,

Father:- Very great mechanical talent, and good business habits; strongly affected by music; of a mathematical turn of mind. Very steady; much partisanship; very great public spirit; extraordinary constructiveness of imagination; foresight,

Mother:- Guided by religious thought and very independent of the exhortations of acquaintances, clerical or lay. Religion was a forbidden subject in her father's family as his mother was a Roman Catholic and all discussion was avoided religiously (note:- *her father was Robert Hodgson Cay, the Judge and friend of Sir Walter Scott, and her grandmother was Frances Hodgson, of Lintz Switzerland, who was a Roman Catholic*).

Origin of Taste for Science;

I always regarded mathematics as the method of obtaining the best shapes and dimensions of things; and this meant not only the most useful and economical, but chiefly the most harmonious and the most beautiful.

I was taken to see William Nicol (note:- *invented the Nicol Polarizing Prism*) and so, with the help of '*Brewster's Optics*' and a glazier's diamond, I worked at polarisation of light, cutting crystals, tempering glass, etc.

I should naturally have become an advocate by profession, with scientific proclivities, but the existence of exclusively scientific men, and in particular of Professor Forbes (note:- *Professor of Physics at Edinburgh University*) convinced my father and myself that a profession was not necessary to a useful life.

Education:

At home till 10, exclusively.

School, Edinburgh Academy 10-15, then Edinburgh University and Cambridge University (2nd Wrangler.)

Education included French, German, logic, natural philosophy, chemistry besides mathematics

Observation

Encouraged by my father's knowledge of animals & by my relatives' practice of drawing (note:- *Jemima Blackburn*' foremost *illustrator of the Victorian era and Maxwell's cousin*).

Merits

Living in a house (note:- *31 Heriot Row, Edinburgh*) where there were many interests & going to a day school (note:- '*Edinburgh Academy*') where the boys were seen at a time when they were fresh and active. I had thus two worlds to balance against one another. On the whole I had the greatest freedom possible to a boy.