

Subject Policy: Science

Identification;

In Science we identify able pupils using a variety of methods including:

- Levels attained from end of unit tests and from level assessed homework tasks. The top 5% of pupils will be selected from each year group and science staff will assess whether they are able, or bright and enthusiastic.
- Externally moderated exams and formal tests e.g SATs and GCSEs. The highest achieving pupils from each year will be selected from Yr9 (Usually L7), 10 and 11 (Usually A/A*).
- Teacher nominations; at the end of each term science staff will nominate pupils for the TAG list based on pupils performance in that area of science

Each member of staff in the department is expected to mark in their registers and on their seating plans those pupils who are Gifted and Able (in science only) and to differentiate their lessons accordingly.

What does *Able* mean in science:

Able pupils will be exceptionally good at explaining why things happen and making connections between different discipline in science. They can use patterns and models to make predictions about unfamiliar situations. They will be able to reflect, evaluate and improve investigations, undertake scientific research and

- | | |
|-----------------------------------|--------------------------------------|
| • Creates new theories | • Draws inferences |
| • Inventor | • Extensive scientific vocabulary |
| • Has wild, silly ideas | • Manipulates information |
| • Initiates practical work | • Good guesser |
| • Is highly curious | • Thrives on complexity |
| • Plays around, yet tests well | • Is highly self critical |
| • Discusses in detail, elaborates | • Questions why things happen |
| • Shows strong feelings, opinions | • Can link different topics together |
| • Identifies patterns in data | • Put ideas into their own words |

develop theories and hypotheses independently. Their knowledge will be wide ranging as well as thorough, detailed and accurate.

Comments associated with a Talented or Able pupil in Science:

Provision:

In order to meet the needs of TAG pupils in science we provide a range of different opportunities for the development of pupils. As part of our schemes of work the science department provide;

- Extended tasks in lessons to enable pupils to access higher levels of the national curriculum.
- Investigations onto physical, chemical and biological theories.
- Exercises which use higher order mathematical skills, formulae, chemical symbols and equations.
- Opportunities for pupils to design, implement and evaluate investigations.
- TAG pupils will be offered triple science lessons to compliment their double science award.

The science department also provide opportunities outside of lessons;

- Links with primary school—introducing science to years 5&6 as a positive role model to aspire in science
- IET Faraday Engineering Challenge (yr8) - team problem solving in an engineering context.
- Flying Start Challenge (yr9) - Science & Engineering - design and build gliders in teams.
- Science & Engineering club—A horizontal year group club which involves pupils designing their own curriculum
- TAG KS3 Science club
- Pupils will be informed and given opportunities to enter Nation wide competitions