

Standards and Quality Report 2016

Dept Name:

Date:

Improvement Planning

Review

Review of Nat 5 courses - did not take place but some input into the assignment aspect of the course with the SQA understanding standards material used by pupils. This material was used to make them aware of what is expected in each area of the assignment. Pupils thought this was a worth-while task but in Biology this did not improve marks ,in the majority of cases .Biology department average was 11.8 /20 which is poor. The research aspect of the course was overseen by another science dept member, but since all science assignments have the same format and expectations this should not have had an impact on the finished product.

Chemistry Assignment 16.1 Physics Assignment 12.5

2015 results Bio 9.9 Chem 16.3 Physics 12.9 .

Chemistry and Physics comparable but some improvement in Bio but not enough.

Next Steps – Bio teach unit 2 earlier and introduce practical work on diabetes which can then be used in assignment.

Implement Highland Monitoring and tracking of SALS - Use of documents successful in highlighting areas covered and gives in depth insight into pupil learning. Pupil feedback indicates useful but better if this was carried out at end of topics instead of a twice yearly process. This is the plan and has already been implemented with S1 last year.

Next steps – how does the dept revisit these areas that pupils have indicated they understood poorly ? Possibility of one off lessons if the majority of a class lacks understanding in an area – discussed at DMs however in reality for the individual pupil time restraints mean that some areas are not revisited in other topics.

Development of the SALS for inquiry and investigative skills , scientific analytical thinking skills and skills and attributes of scientifically literate citizens have been inserted into the BGE course and there are many opportunities for pupils to progress in these areas. The dept has considered the level of investigation and progression,working out a hierarchical order of expectations at each level.

Improve feedback to pupils Pupils are given feed back on each investigation and are given the opportunity to comment on their progress.

Peer comments on progress is used during presentation and success criteria feedback sheets are also used , again pupils are expected to comment on these.

This was part of the TLC program this year and visits between departments occurred and useful dialogue took place.

Improve consistency of marking across the department- This can only happen if there is communication and co-operation with all members of the dept. Cross-marking and sharing of information with new teacher in Chemistry taking place and still some confusion as to expectations but improvement in consistency is happening . The whole process of crossmarking with Physics is a real trial therefore this year the Internal verification policy has been changed to crossmarking between Biology and Chemistry. Both teachers will share the crossmarking of Physics materials if they are forthcoming. This lack of departmental co-operation has been discussed on numerous occasions , at all levels, over the last 4 years but very little if any improvement has taken place. This is why there is a change to the dept policy

Next Year

Introduction of Advanced Higher courses in all Sciences

TLC Formative assessment

Assignment review for Higher and Nat 5 in all sciences

Review of SQA changes to assessments in all sciences (again).

Review of S1-S3 Sals and production of materials

BGE

“At present teachers in the department are working towards new format reports in the BGE where we will report on levels and next steps. Training will be undertaken and we will use the information from monitoring and tracking of SALS as well as in class activities.

At present the science uptake is high with the 79% of pupils in S3 choosing Science option.

Core Science numbers are 42 (all pupils in S3)

Option Science numbers are 33

3.2 Raising Attainment and Achievement (From How Good is Our School 4)

“Almost all pupils are attaining appropriate levels and a few have exceeded these”

The dept has been looking at progression frameworks during the development of new courses to ensure a pathway is provided for all pupils to reach maximum achievement. The use of data from SOSCA score and also the use of SEEMIS to inform of progress in all subjects are useful tools. In the classroom we do the following:-

Target setting /review with learning conversations

Mid unit tests/ +AB tests at senior phase + learning conversations

Traffic lighting learning outcomes

Peer review

Reporting to parents

Guidance and SFL departments notified and involved

Discussions at Dept meetings on pupil progress

“Confident teacher judgements together with benchmarking and an appropriate range of assessments are leading to improvements in attainment”

SQA have once again chosen to amend the assessment criteria from Sept 16 with a view to teacher’s implementing these changes straight away. How-ever this is dependent on teacher workload Highland Region Science Inservice provides a platform for discussion of standards and thus improvement of consistency of approach and marking.

Cross-marking of materials is a high priority within dept to ensure consistency and is completed on a rolling basis as per IV strategy document.

Senior Phase

Comment on courses: Including grade breakdown and uptake

Nat 3/4

Bio 1 pupil entered for Nat 5 was given a Nat 4 pass

% Passes	2016	2015	2014	2013
S4	87	86	71	86
S5	76	89	84	84
S6	NA	67	43	100

National 5 87% pass (A-C) (93%A-D)

Highland and National comparison

	A	B	C	D	RR
Biology	below both	above both	above both		-0.05
Chemistry	above both	above both	above both		+0.26
Physics		above both	above both	above both	-0.25

Higher 76% pass (A-C) (94% A-D)

Highland and National comparison

	A	B	C	D	RR
Biology	slightly below both	well above both		above both	-0.37
Chemistry	well above both	well above both		above both	+0.63
Physics	slightly below both	in line		in line	-0.98

-0.23 for S5 cohort, -3.68 for S6

Adv Higher

No Candidates which is the first time for many years.

3.2 Raising Attainment and Achievement (From How Good is Our School 4)

“Almost all pupils are attaining appropriate levels and a few have exceeded these”

Comment: Mid unit tests to enable pupils to realise the level of expectations and to allow time for pupil to raise attainment before UASP. SEEMIS is used to record initial targets after pupil/teacher conversations, this is referred to throughout the course and is the basis for continued learning conversations. Homework is used on a weekly basis to ensure practice and also to identify areas of weakness.

Wider Achievement

Comment
Contribution from dept on Wider Achievement agenda

Crest awards

Within our core S3 Science classes, we have implemented the Crest Award (a qualification run by the British Science Association). The award focusses on developing researching and presentation skills in

a scientific context.

All 43 pupils in 2015/16 S3 cohort achieved a Bronze Crest Award.

The delivery of this qualification has been reviewed and will be implemented again for the 2016/17 session.

Science Club

Within the department, we currently run a weekly lunch session involving S1 and S2 pupils. In these sessions, the current emphasis is engaging pupils in Science using a variety of fun practical activities and also to aid understanding of difficult concepts. Discussions will take place regarding the long term aims of the club, possibly with the aim to include SALTIRE awards.

Developing Young Workforce

Comment: Any events/ links developed with partners; work experience etc being offered?

Geobus from St Andrew University visit annually to cover geology aspects of BGE . This involves all S1 or S2 pupils.

Forensic science - The dept have a whole day of activities for S1 pupils and also a visiting forensic scientist who delivers a talk on his work.

Closing the Gap

Comment: (any initiatives running or planned to help with our more disadvantaged pupils Eg study club, in-class support etc)

- Learning conversations take place between teacher and pupils, these are ongoing and are used to inform the Pupil Profile at end of S3.
- Pupils also set targets for each unit of work carried out in all subjects within the department, and in all year groups they are asked to review these targets and teachers comments are added after discussion with the pupils.
- In class support is limited this year but the members of the SFL act as readers scribes and prompts in the department for those pupils with identified needs such as dyslexia, anxiety and slow processing. Evidence is required by SQA and the department works closely with SFL to monitor and record pupils with identified needs.
- Other strategies employed by the department to aid pupils include use of laptops , white boards for show and tell and colour filters for individuals to help with dyslexia problems.
- Group work is used to encourage peer support and development of confidence in individuals
- Senior pupils also act as in class support
- Pupils are offered after school support in physics and chemistry and the school runs a supported study session every lunchtime.
- The library has computers which may be accessed at break and lunchtimes.