KGS SCIENCE - Faculty Standards and Quality Report Session 2022-23

# Faculty Aims

* We strive to create a learning environment where students feel safe, supported and valued
* We look to build skills that enable all students to be successful, giving them the most options possible in life, learning and work
* We want all students to become responsible and scientifically literate citizens that can make informed decisions in the future

# Successes and achievement

# BGE and Wider Faculty

* Reviewed our S1 and S2 assessment and implemented a more consistent assessment schedule
* Looked at our S3 courses and tightened up the content, skills development and assessment to help inform choices and support learning in the senior phase
* Improved the consistency of information shared through Tracking and put systems in place to ensure early intervention by contacting pupils and parents directly to support them with advice, resources and strategies available
* Learning conversations with all senior phase students before tracking so they know where they are, what their target is and what they need to do to get there
* All senior phase pupils provided with a revision guide for the course to support them in consolidating work at home
* Teams resources shared and support provided that increase the chances of being successful
* Supported study offered across the school week throughout the school year
* Orkney International Science Festival
	+ Phenomenal opportunity to inspire and motivate our students with well over 1000 opportunities to engage each year before covid
	+ Digital involvement this year to allow our students to have opportunities to engage
	+ We look forward to being able to have real life Scientists in school again next year
* Peter Higgs Science Award
	+ Now in it’s 5th year of award and has given an opportunity to celebrate the academic success of some of our exceptional Science students
	+ Adds an extra dimension to University applications
	+ Inspires and motivates younger students
* Big Bang STEM day event for all S2 pupils
	+ An opportunity to highlight career opportunities in Orkney in STEM subjects
	+ Develop some STEM skills across the school day with different Teachers
	+ Raised the profile of STEM across the school
* Mars Rover
	+ Pupils were invited to be involved in a Team challenge to build and programme a Robot
	+ We have a team working on the project to be sent away and compete against other schools in it’s ability to perform tasks that would be required of a Mars Rover
* Orkney Native Wildlife Project
	+ Senior Biology pupils had the opportunity to experience stoat dissection in their classroom working with an expert from ONWP
* Another year of supporting Probationer Teachers and Student teachers in developing their skills and adding to the pool of talent ready to move education forward over the coming years
* Mapping of S1-S6 Science curriculum and shared on the school website to allow an overview of progression through the Sciences

**2022 SQA exam diet**

**Biology**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | A (%) | B (%) | C (%) | D (%) | NA (%) | A-C (%) |
| N5 Bio (72 pupils) | 26.4 | 20.8 | 26.4 | 16.7 | 9.7 | 73.6 |
| H Bio (36 pupils) | 16.7 | 38.9 | 16.7 | 25.0 | 2.8 | 72.2 |
| H Human Bio (16 pupils) | 18.8 | 18.8 | 31.3 | 0.0 | 31.3 | 68.8 |
| AH Bio (18 pupils) | 11.1 | 27.8 | 27.8 | 22.2 | 11.1 | 66.7 |

**Chemistry**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | A (%) | B (%) | C (%) | D (%) | NA (%) | A-C (%) |
| N5 Chem (49 pupils) | 30.6 | 30.6 | 20.4 | 16.3 | 2.0 | 81.6 |
| H Chem (31 pupils) | 19.4 | 19.4 | 25.8 | 19.4 | 16.1 | 64.5 |
| AH Chem (8 pupils) | 25.0 | 25.0 | 0.0 | 25.0 | 25.0 | 50.0 |

**Physics**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | A (%) | B (%) | C (%) | D (%) | NA (%) | A-C (%) |
| N5 Phy (25 pupils) | 20.0 | 28.0 | 24.0 | 20.0 | 8.0 | 72.0 |
| H Phy (27 pupils) | 22.2 | 25.9 | 11.1 | 7.4 | 33.3 | 59.3 |
| AH Phy (3 Pupils) | 66.7 | 0.0 | 33.3 | 0.0 | 0.0 | 100.0 |

# What are our next steps

* Look at Literacy and Numeracy as part of our assessment of key pieces of work in S1 and S2
* Moderation of key pieces of work across BGE to allow level of Literacy and Numeracy data to be better tracked and reported
* BGE homework pieces where students have the opportunity for enrichment and parents have an opportunity to be more involved in learning
* Pupil voice – create questionnaires that allow pupil feedback and use that feedback to inform future curricular development plans
* We would like to engage more with the local business community to highlight jobs and to allow pupils to visit renewables sites here in Orkney
* Moderation of key pieces of work across the senior phase internally and across the authority – with potential for work across three Islands group with Shetland and Western Isles
* Continue to develop study skills and resilience in our pupils

# Work and Life of the Faculty

* We are a dedicated team that is committed to ensuring our students achieve their full potential in Science
* We are constantly updating our courses and improving our teaching methodologies to meet the needs of our pupils
* We offer both lunchtime and after school study support sessions to our students throughout the academic year
* Microsoft Teams use during lockdown has led to teachers and pupils being more aware and better able to use Teams effectively as a platform for online learning and assessment to support the work we do in class
* Our Science teachers are also very active in whole school initiatives. This session we have continued to take a lead role in advancing Equity, Behaviour, Recognising success and Neurodiversity awareness across the school as well as in delivery of Duke of Edinburgh and Hoy trips for our pupils.

# Vision and Leadership

* Strong positive relationships and effective communication with all stakeholders
* Provide support and opportunities for pupils to be successful
* Provide interesting, engaging and relevant learning opportunities
* Develop learners understanding of the world in which they live and their responsibility to live their lives in a sustainable way
* Develop skills for life, learning and work to maximise opportunities for pupils when they leave school
* Develop scientifically literate citizens with the skills to make informed choices and present arguments which are supported by strong evidence