

Triple Science Support Programme

Final evaluation report: Appendices 1-5

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Author(s)	Max Kowalewski and Myles Wilson
Quality Assurance by	Dr Chih Hoong Sin
Main point of contact	Max Kowalewski
Telephone	0207 239 7833
Email	mkowalewski@opm.co.uk

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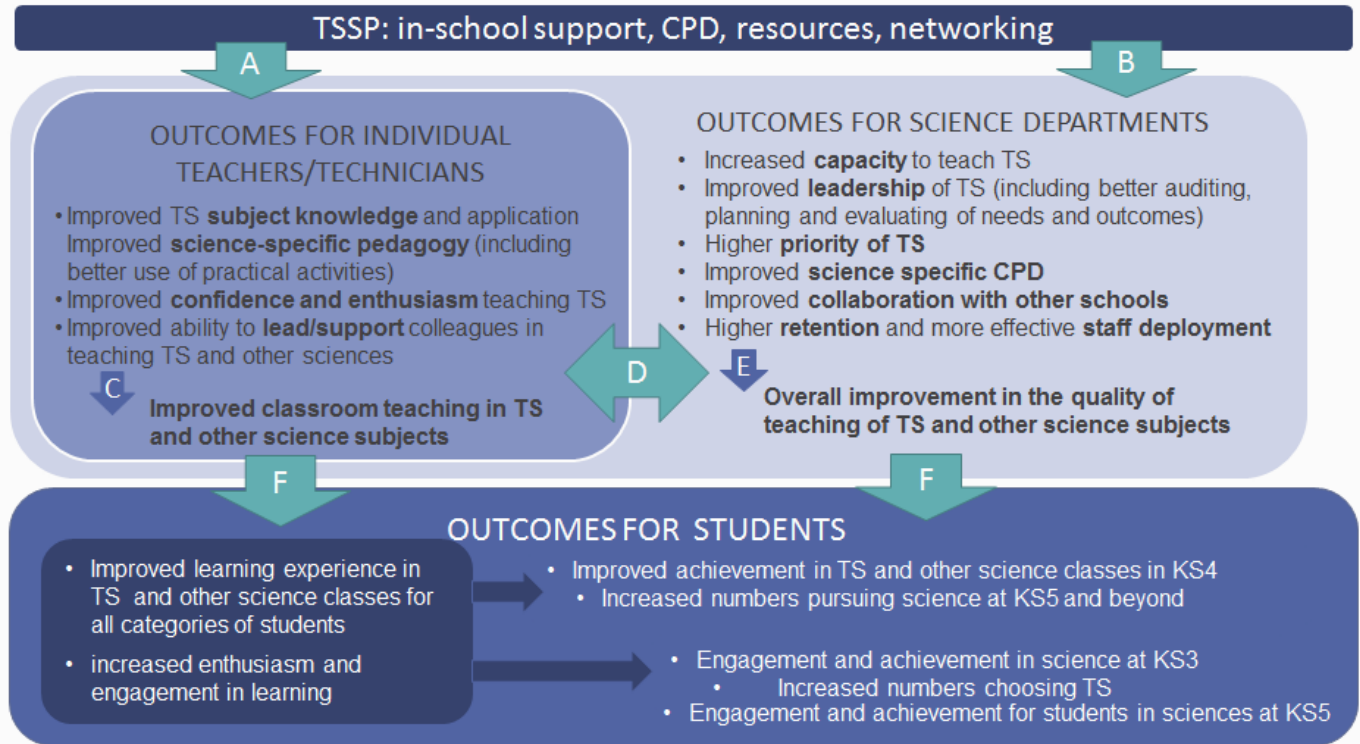
252B Gray's Inn Road
London
WC1X 8XG

0845 055 3900
www.opm.co.uk
info@opm.co.uk



Appendix 1: TSSP theory of change model

THEORY OF CHANGE MODEL



- TSSP directly supports individual teachers with CPD, networking, and online resources
- TSSP supports department leaders and whole teams
- Teachers use increased subject and pedagogy knowledge to enhance classroom teaching
- Teachers feed development back to colleagues/departments; improved departments give better support to individual teachers
- Improved teaching and leadership capacity leads to an overall increase in teaching TS and other science subjects
- Departments offer TS to more students and support their engagement and progress

Appendix 2: Methodology

Data collection method	Target	achieved	Dates	Notes
Baseline online survey with advisors	N/A (sent to 35)	17	Jan – Feb 15	
Baseline online survey with Y1 schools	N/A (sent to 319)	15	Feb – Mar 15	Sample of schools is likely to be skewed towards schools with positive views of the programme.
Follow up online survey 2 with Y1 schools following action plan	N/A (sent to 166)	11	Mar – Apr 15	Sample of schools is likely to be skewed towards schools with positive views of the programme.
Follow up online survey 2 with advisors	N/A (sent to 35)	16	Mar – Apr 15	
Action learning workshop with advisors and Regional Leads	1	1	May 15	
Desk analysis of Y1 Needs Analysis and Action Plans	50	50	July – Aug 15	
Endline survey for Y1 and Y2 schools	N/A (sent to 239 Y1, 153 Y2)	139	Sep15 – Feb 16	86 Y1 (of which 15 Y1 to Y2), 53 Y2
Endline survey for advisors and Regional TSSP Leads	N/A (sent to 38)	27	Oct15 – Feb 16	
In-depth telephone interviews with schools	18	20	April – July 15 for Year 1. Nov 15 – March 16 for Year 2.	13 Y1 schools and 7 Y2 schools
Visits to schools	7	6	May – June for Year 1. Jan –	5 Y1 schools and 1 Y2 school

			March 16 for Year 2.	
In-depth telephone interviews with advisors and Regional TSSP leads	12	12	Jan – July 16 for Year 1. Feb – March 16 for Year 2.	
Desk analysis of Y2 Needs Analysis and Action Plans	50	46 Action Plans, 29 Needs Analysis	March 2016	

Appendix 3: Summary of visits

School 1 (Y1, C2) is a large academy in a coastal town with a very mixed catchment area. It has gone through significant changes in leadership, facilities, having previously been in special measures. Triple science provision was affected by lack of physics specialists, low staff confidence, insufficient timetabling for triple science, and students disengaged from science across the school.

The TSSP support, through working with the advisor on the needs analysis and action plan, initially helped the department understand what its current needs were, in triple science and STEM in general, and how it should focus its attention on these. Support was then used for sessions engaging students, particularly vulnerable ones, at KS3 and KS4, demonstrating physics experiments in classrooms. The support was considered excellent, with students inspired and re-engaged, and new ideas for staff (including an NQT) around practical learning and assessment techniques. The HoS also benefited from one-to-one support on raising attainment in numeracy, which brought fresh ideas, although it was not clear to what extent these had been implemented. Discussions with the advisor on how to make triple science more accessible, and timetabled appropriately, helped the HoS make the case for offering triple science to more students with the SLT; with all this in the longer term expected to support growing triple science cohorts. The support has already helped raise the profile of science generally within the school.

Factors that limited the support were the school's own internal disruptions around leadership and facilities, as well as timing. The Lead wished support could have been available longer, as the TSSP only started in the school late in the academic year, and he thought the very short time period was too limited. However, the school's advisor did help the school link with other local sources of support. Nonetheless the school would welcome a follow-up, or further support, to help it embed and develop its triple science provision further.

School 2 (Y1, C1) is a large secondary school in a deprived suburb of a large northern city. The department had a largely new team and did not offer triple science, hampered by lacking curriculum time, and staff not confident to teach out of specialism. Student attainment was also below average. The head of science was relatively new in post and was hoping to set up triple science in the future.

The TSSP enabled subject-specific CPD for a number of teachers, including an all-day physics workshop, to support the many non-specialist teachers teaching physics. This brought about a large increase in confidence for those teaching out of specialism, with staff more comfortable in using enquiry-led approaches to experiments; dissemination to other staff was planned. This improved student learning, supporting independent enquiry, and greater enthusiasm. One to one coaching was also offered to two teachers, for mathematics in science, and physics, which were also well-received. Another teacher attended a networking event which brought further ideas and resources, e.g. for lesson planning. The HoS expected the impact of the programme to become fully embedded once new resources and approaches were integrated into future schemes of learning for KS4.

The HoS thought the support has upskilled his whole department which increased their capacity to teach triple science when it will be offered in the future. The process of arranging support, and getting staff released for CPD, has also increased the profile of triple science, and the SLT's expectations of triple science. However, there was appetite for further CPD support for biology in the future. Although timetabling of triple science classes continues to be a challenge, it was decided to offer these after school hours, and the school is now offering triple science to its first cohort. It is also becoming a hub to teach courses and collaborate with other schools in the area.

School 3 (Y1, C2) is a large suburban Academy, that has been affected by unstable staffing, with triple science uptake limited by insufficient curriculum time, with the department recently deciding to move triple science from an option to a guided choice. Low attainment was also a problem in the school. The school wanted to improve its teaching and learning and ensure student progress improves.

The general support of the school's advisor, and the knowledge and information he provided, has helped the department formulate its long-term plans for triple science, as well as offering some support for adapting to the new GCSEs. The department leads found this support useful as it responded exactly to their needs. It also helped the two leads become more confident in making the case for triple science. Through the TSSP the school received coaching for the two department leads, which brought a number of useful resources and ideas, particularly for assessment and revision.

Department leaders agreed that these resources were applicable to all year groups; resources were offered to be shared round but the department has not been monitoring whether new resources were being used effectively. Individual teachers did make use of these and found them to be useful, encouraging students to be more independent in their learning. The department hopes to embed these resources further when it has the time to do so. Impacts on the students were not expected to become evident until exam results could be analysed.

The school was frustrated by two external CPD courses having to be rescheduled, with communication around these slow. Staff looked at the online resources but didn't find the website easy to navigate. It also suffered internal challenges with staff availability meaning that some staff did not have the time to engage with the programme, although they valued their advisor's readiness to accommodate changes and dates where possible.

School 4 (Y1, C1) is a large secondary school in a small rural town that currently offers triple science to a small number of students. The main challenge facing the provision of triple science is a shortage of specialist teachers. The school receives regular CPD after school for non-specialists which run by the Institute of Physics, and they wanted some similar CPD for biology and chemistry non-specialists. The TSSP support was focussed on biology and chemistry for non-specialists, to give staff knowledge and confidence to teach out of their specialism.

They received a departmental CPD session for chemistry as well as two sessions focussing on biology. The biology sessions were reported to be the most useful as they had a greater practical element to them. Teachers were shown how to perform new practical activities and took away ideas which have since been used in the classroom. A few staff were unable to attend, however those who did fed back to the department. Overall, teachers have gained new skills and confidence and have come away with different approaches to lesson planning, and become better at delivering high quality lessons out of specialism.

Teachers' increased confidence and enthusiasm is expected to impact on students' enthusiasm; the HoS also noted positive effects on student behaviour as classes become less dry and more active. The school's head of science suggested that these impacts will trickle down to younger year groups too. The school has also been making changes to their curriculum at KS3 to better link to triple science, and is now expecting student uptake of triple science to continue increasing. One issue was that the school's HoS wanted more flexibility with the timing of support, going beyond the academic year. The HoS also expressed that they would like more regular network meetings and an online community forum.

School 5 (Y2, C1) is a small free school in a suburban area in the Northwest. The school only opened a few years ago, and is rapidly growing. Triple science was being introduced for the first time when the TSSP came in, and currently has one group in Y10. Despite having specialists in all three subject areas, the majority of staff had not taught triple science before joining the school, and the Head of Science was new in post. Other challenges were poor technical support, and the awareness and understanding of the triple science curriculum.

The school's TSSP advisor provided one-to-one coaching for HoS to help her prepare for the new GCSEs and generally the changes in the educational context, and as a new HoS she thought this support was invaluable. Through the TSSP the school also received departmental CPD sessions for preparing staff specifically for the GCSE in chemistry. The support was said to be excellent, and staff learnt how to perform all of the practical activities for the new chemistry curriculum, including staff that were teaching out of specialism. They were also provided with resources to use in lesson planning. Another staff member went on a 'teaching outstanding biology' scheduled course. The advisor also put the HoS in touch with other local schools for exam moderation and a list of practical equipment needed for triple science, which has saved the department time, and has facilitated local links. The school has scheduled a further departmental CPD session on exam analysis and intervention strategies to take place in May 2016.

The school benefited greatly from improved leadership of the triple science curriculum for the HoS, as well as improved subject knowledge, skills, and understanding of the triple science curriculum for individual team members. Practical activities, hinge point questions and other strategies that were shared at the departmental CPD sessions are now being used by all members of staff, which they believe has contributed to improved student progress, skills, and understanding. The HoS was confident that the support in developing their teaching will impact on all students across the curriculum.

School 6 (Y1, C2) is a large suburban academy in the South West region that currently offers triple science to Y10 and Y11, with 50-60 pupils (2 groups) studying triple science in each year group. The school has stable staffing for biology and physics, but not for chemistry. Through the needs analysis with the advisor, this was reported as a key barrier limiting further uptake of triple science. The school has overall good attainment however the needs analysis also highlighted student ability in mathematics among the triple science cohort as an issue.

Through the TSSP the school received chemistry-specific CPD for non-specialists. This was seen as particularly useful as it was hands-on, showing how to perform practical activities, and gave tips for planning. From the session they took away resources and ideas for planning practical activities. The HoS noted that the school's previous gap around chemistry provision had now been resolved, and non-specialists (including an NQT) have gained more confidence, which has impacted student engagement, not just within triple science classes. The TSSP also delivered a departmental session looking at online resources, which staff thought included some 'gems' as well as some 'rubbish'. Due to limited time to follow up and embed, they have however not been able to implement much into their planning yet.

Apart from improvements in chemistry teaching, the HoS did not think their school's triple science provision changed much. They thought the session on resources could have been more structured and focused on their specific areas of need. Staff turnover and the new specifications were also identified as ongoing challenges for triple science. As the school already has good local links it expects to draw on these for support in the future.

Appendix 4: Endline survey results

Schools endline survey

Section 1 - about you/your school

1. Role: please select one

104 (74.8%) Head of Science

5 (3.6%) Triple science teacher

8 (5.8%) Other science teacher

0 (0.0%) Head teacher

0 (0.0%) School governor

20 (14.4%) Other senior leader - science based (e.g. Head of Service, science line manager)

2 (1.4%) Other senior leader - not science based (e.g. Head of Service, other line manager)

Other (please specify)

17 (100.0%)

2. Your school name (We ask for this only in order to know which schools have responded)

139 (100.0%)

4. Which of these year(s) did your school receive support through the TSSP in?

43 (30.9%) We are currently receiving support (2015-2016 academic year) only

66 (47.5%) We received support in the 2014-2015 academic year only

30 (21.6%) We are currently receiving support, and did so last year too (2014-2015 and 2015-2016 academic years)

4.b What is the status of your school's current provision of triple science GCSEs?

4 (5.0%) We do not currently offer triple science

16 (20.0%) We offer triple science but less than 8% of pupils are currently taking it

- 60 (75.0%) We offer triple science and 8% or more of pupils take it
- 0 (0.0%) Not sure

5. What main outcomes did you want to achieve by joining the TSSP? Please select top three

- 96 (69.1%) Increase knowledge, confidence and skills of triple science teaching staff
- 30 (21.6%) Increase the number of triple science teaching staff and/or capacity to deliver triple science
- 79 (56.8%) Develop/ Improve the quality of triple science provision, including curriculum planning
- 37 (26.6%) Increase the provision and quality of practical sessions
- 19 (13.7%) Increase the uptake of triple science
- 74 (53.2%) Improve pupil attainment and progression in triple science
- 6 (4.3%) Improve the profile of pupils taking triple science (e.g. by gender, free school meals)
- 37 (26.6%) Improve pupil motivation, engagement, and attitudes to triple science
- 16 (11.5%) Increase the number of students studying triple science post-16

6. How many of these outcomes have you achieved so far?

- 30 (21.6%) All
- 68 (48.9%) Most
- 39 (28.1%) Some
- 2 (1.4%) None

Please outline to what extent each of these have been achieved and how

For verbatim comments please see Appendix 6.

Please outline any reasons why these have not been achieved

For verbatim comments please see Appendix 6.

SECTION 2 - SUPPORT FROM THE TRIPLE SCIENCE SUPPORT PROGRAMME AND THE NATIONAL SCIENCE LEARNING NETWORK

7. How would you rate each of the following elements of the TSSP support

	Very good	Good	Average	Poor	Very poor
The skills and knowledge of the triple science advisor supporting your school	105 (75.5%)	29 (20.9%)	5 (3.6%)	0 (0.0%)	0 (0.0%)
Your triple science advisor's understanding of the context and specific needs of your school	100 (72.5%)	31 (22.5%)	6 (4.3%)	1 (0.7%)	0 (0.0%)
The timing of the support provided - how it fitted/fits with your school's own planning cycles	75 (54.0%)	49 (35.3%)	11 (7.9%)	4 (2.9%)	0 (0.0%)
The resources available from programme	65 (47.8%)	61 (44.9%)	8 (5.9%)	1 (0.7%)	1 (0.7%)

8. **How, if at all, could the process of developing your school's Action Plan, the specific support elements of the Triple Science Support Programme, or the overall support given by your triple science advisor have been done better?**

For verbatim comments please see Appendix 6.

9. **Did you/your colleagues access any of the online resources offered as part of the Triple Science Support Programme?**

61 (43.9%)	Yes
78 (56.1%)	No

How helpful did you find the following?

	Has helped to a great extent	Has helped somewhat	Has not helped at all	Don't know
Resources on the eLibrary	10 (17.5%)	42 (73.7%)	1 (1.8%)	4 (7.0%)
Triple science resources on the eLibrary	11 (19.3%)	39 (68.4%)	1 (1.8%)	6 (10.5%)
Online Self Evaluation Tool	10 (17.9%)	23 (41.1%)	5 (8.9%)	18 (32.1%)
Case studies	3 (5.5%)	20 (36.4%)	7 (12.7%)	25 (45.5%)
iBooks	4 (7.7%)	16 (30.8%)	7 (13.5%)	25 (48.1%)
Online community groups	1 (1.8%)	23 (41.1%)	5 (8.9%)	27 (48.2%)

Resources within online community groups	4 (7.3%)	20 (36.4%)	5 (9.1%)	26 (47.3%)
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10. How helpful were each the following aspects of support in strengthening your school's triple science provision?

	Has helped to a great extent	Has helped somewhat	Has not helped at all	Have yet to receive this form of support
Scheduled courses for teachers	41 (30.8%)	66 (49.6%)	4 (3.0%)	22 (16.5%)
Bespoke CPD and school-based support	92 (66.7%)	40 (29.0%)	2 (1.4%)	4 (2.9%)
Engaging in networking opportunities	22 (16.7%)	57 (43.2%)	10 (7.6%)	43 (32.6%)
Online community groups and resources	4 (3.2%)	40 (31.7%)	27 (21.4%)	55 (43.7%)
The overall support of your triple science advisor	91 (67.4%)	41 (30.4%)	3 (2.2%)	0 (0.0%)

11. Please indicate which of the following was the most useful:

	Scheduled courses for teachers	Bespoke CPD and school-based support	Engaging in networking opportunities	Online community groups and resources	The overall support of your triple science advisor
Most useful	20 (14.4%)	86 (61.9%)	3 (2.2%)	0 (0.0%)	30 (21.6%)
Least useful	18 (14.9%)	3 (2.5%)	23 (19.0%)	71 (58.7%)	6 (5.0%)

Please expand your answer to explain a little about why

For verbatim comments please see Appendix 6.

12. Have you had any other support from the National Science Learning Network more broadly?

59 (42.8%) No

30 (21.7%)	Yes - attended a Science Learning Partnership (SLP) led training session, separate to the Triple Science Support Programme
29 (21.0%)	Yes - attended CPD provided by the National Science Learning Centre in York
8 (5.8%)	Yes - online CPD through the National Science Learning Network
7 (5.1%)	Yes - other, please specify
19 (13.8%)	Don't know

How would you rate this? Please select one

33 (55.9%)	Very good
20 (33.9%)	Good
5 (8.5%)	Fair
1 (1.7%)	Poor
0 (0.0%)	Very poor

SECTION 3 - OUTCOMES AND IMPACT

The following questions are about the impact the TSSP may have had on you and your school to date. Some schools were previously surveyed in the 2014-2015 round of the programme in spring 2015. For these schools we would like to ask these questions again so we can explore how the picture has changed since then. Other schools may have received support from the TSSP in 2015-2016 (and 2014-2015) - in this case we would like you to think about any impacts the programme has made so far.

13. How successful was the TSSP in helping to improve triple science provision in your school? Please select one

47 (34.3%)	Has helped to a great extent
76 (55.5%)	Has helped somewhat
5 (3.6%)	Has not helped at all
9 (6.6%)	Have not seen improvement in triple science provision yet, but I expect to see this in the future

14. Will more or less pupils in your school study triple science after the support of the programme?

- 0 (0.0%) Less
- 24 (30.0%) More
- 30 (37.5%) About the same
- 26 (32.5%) Hard to say at the moment

Please expand on your answers to the above two questions.

For verbatim comments please see Appendix 6.

15. How would you rate the impact of the TSSP to date on:

	High	Medium	Low	Zero
Science teachers	65 (47.1%)	67 (48.6%)	4 (2.9%)	2 (1.4%)
Technicians	19 (14.1%)	47 (34.8%)	47 (34.8%)	22 (16.3%)
Students	37 (27.2%)	86 (63.2%)	11 (8.1%)	2 (1.5%)
School overall	27 (20.1%)	82 (61.2%)	23 (17.2%)	2 (1.5%)

If low or zero, please explain why

For verbatim comments please see Appendix 6.

16. What impact, if any, would you say the TSSP support your school has accessed had on each of the following areas?

A. Impact on science teachers:

	High	Medium	Low	Zero	Not yet, but I expect to see this impact in the longer term
Improved enthusiasm and confidence of teachers	53 (39.0%)	69 (50.7%)	3 (2.2%)	2 (1.5%)	9 (6.6%)

Improved subject knowledge and understanding of areas of triple science curriculum of teachers	44 (32.8%)	62 (46.3%)	15 (11.2%)	6 (4.5%)	7 (5.2%)
Increased pedagogical knowledge, skills and understanding of triple science curriculum / assessment / practical work / literacy / numeracy of teachers	46 (33.8%)	73 (53.7%)	3 (2.2%)	4 (2.9%)	10 (7.4%)
Use of new subject and pedagogy knowledge, skills and understanding of teachers	32 (23.4%)	80 (58.4%)	10 (7.3%)	5 (3.6%)	10 (7.3%)
Improved knowledge and skills in leadership and management among teachers	22 (16.2%)	54 (39.7%)	30 (22.1%)	17 (12.5%)	13 (9.6%)
Use of new leadership and management skills among teachers	14 (10.4%)	50 (37.3%)	33 (24.6%)	21 (15.7%)	16 (11.9%)
Improved technical skills for supporting practical work among teachers/technicians	19 (13.9%)	50 (36.5%)	29 (21.2%)	20 (14.6%)	19 (13.9%)

B. Impact on colleagues/school:

	High	Medium	Low	Zero	Not yet, but I expect to see this impact in the longer term
Improved quality of teaching overall	29 (21.0%)	79 (57.2%)	7 (5.1%)	4 (2.9%)	19 (13.8%)
Improved leadership of triple science curriculum	35 (25.5%)	57 (41.6%)	18 (13.1%)	11 (8.0%)	16 (11.7%)

Increased progress and attainment of pupils in triple science	27 (19.7%)	52 (38.0%)	11 (8.0%)	4 (2.9%)	43 (31.4%)
Increased profile/priority of triple science in school	26 (19.1%)	51 (37.5%)	25 (18.4%)	15 (11.0%)	19 (14.0%)
Improved sharing of effective practice and resources in triple science	39 (28.5%)	66 (48.2%)	16 (11.7%)	4 (2.9%)	12 (8.8%)
Increased number of students considering studying science pre/post 16	19 (13.9%)	44 (32.1%)	23 (16.8%)	8 (5.8%)	43 (31.4%)
More students wishing to take triple science	26 (19.5%)	42 (31.6%)	23 (17.3%)	12 (9.0%)	30 (22.6%)
Improved leadership of the science department/science curriculums	34 (25.6%)	52 (39.1%)	24 (18.0%)	9 (6.8%)	14 (10.5%)
Increased capacity of department to teach triple science	32 (23.9%)	64 (47.8%)	17 (12.7%)	10 (7.5%)	11 (8.2%)
Support to colleagues in other department	15 (10.9%)	33 (24.1%)	34 (24.8%)	41 (29.9%)	14 (10.2%)

C. Impact on students

	High	Medium	Low	Zero	Not yet, but I expect to see this impact in the longer term
Improved students' attainment in triple science knowledge, skills and/or understanding	33 (24.3%)	51 (37.5%)	9 (6.6%)	6 (4.4%)	37 (27.2%)

Improved students' progress in triple science knowledge, skills and/or understanding	35 (25.7%)	55 (40.4%)	6 (4.4%)	6 (4.4%)	34 (25.0%)
Confidence, motivation and engagement in triple science lessons	36 (26.3%)	65 (47.4%)	6 (4.4%)	6 (4.4%)	24 (17.5%)
Improved behaviour and safe working	20 (14.9%)	55 (41.0%)	28 (20.9%)	17 (12.7%)	14 (10.4%)
Improved engagement of FSM, girls, or other vulnerable group in triple science offer e.g. Y8/9 options	14 (10.6%)	50 (37.9%)	24 (18.2%)	10 (7.6%)	34 (25.8%)
Improved motivation to study science subjects post-16/ increased uptake of science subjects post-16	17 (12.5%)	46 (33.8%)	17 (12.5%)	6 (4.4%)	50 (36.8%)

16. Have there been any other unanticipated positive impacts from the programme in your school? Please select any that apply from the list below:

26 (40.6%)	Impacts on post 16 science
29 (45.3%)	Impacts on relationships between departments, teams, levels of management
10 (15.6%)	Impacts on or the school's relationship with other schools or partners
8 (12.5%)	Other - please specify

For verbatim comments please see Appendix 6.

17. Would the changes identified in the last few questions have happened without the TSSP? Please select one

11 (8.8%)	Yes, these changes would have occurred without the TSSP
70 (56.0%)	Yes, but these changes would have taken longer to implement than through the TSSP
39 (31.2%)	No, only some of these changes would have occurred without the TSSP
5 (4.0%)	No, these changes would not have occurred without the TSSP

SECTION 4: FUTURE AND SUSTAINABILITY OF CHANGE

18. What barriers, if any, do you see to the triple science support programme having an ongoing impact on your school's triple science provision? Please select any that apply from the list below:

- | | |
|------------|--|
| 70 (51.5%) | Context of current education policy changes (for example, introduction of progress 8, curriculum changes, linear assessment) |
| 72 (52.9%) | Staff turnover |
| 79 (58.1%) | Lack of staff time to implement changes suggested through the programme |
| 32 (23.5%) | Limited extent of TSSP support (e.g. not enough time from the triple science advisor) |
| 39 (28.7%) | Limited duration of TSSP support (e.g. not over two academic years) |
| 8 (5.9%) | Certain planned elements of support did not go ahead |
| 4 (2.9%) | Other, please specify |

19. What are the future CPD needs of your department/school in relation to triple science? Please select all that apply

- | | |
|------------|--|
| 32 (23.2%) | Assessment for learning |
| 11 (8.0%) | Biology for non-specialists |
| 26 (18.8%) | Chemistry for non-specialists |
| 77 (55.8%) | Physics for non-specialists |
| 61 (44.2%) | Curriculum Planning |
| 18 (13.0%) | Department evaluation |
| 95 (68.8%) | Developing schemes of learning for new GCSE specifications |
| 20 (14.5%) | Development of leadership skills |
| 49 (35.5%) | Differentiation |
| 63 (45.7%) | Linear assessment |
| 27 (19.6%) | Literacy |
| 12 (8.7%) | NQT support |
| 48 (34.8%) | Numeracy |
| 31 (22.5%) | Practical work |
| 81 (58.7%) | Raising attainment/stretch and challenge |
| 72 (52.2%) | Strategies for underperforming groups |
| 11 (8.0%) | Strategies to increase uptake |
| 71 (51.4%) | New GCSE in triple science Biology |
| 70 (50.7%) | New GCSE in triple science Chemistry |

73 (52.9%) New GCSE in triple science Physics

20. **If you have any other comments about the TSSP that you would like to feed back to the National Science Learning Network, for example how you view the TSSP model of CPD support as a whole, please tell us about them**

For verbatim comments please see Appendix 6.

Thank you very much for your time

DatabaseCategory

17 (12.2%) Category 1

122 (87.8%) Category 2

DatabaseYear

71 (51.1%) Year 1

53 (38.1%) Year 2

15 (10.8%) Year 1 to Year 2

Advisors endline survey

Background

Q1 Your name:

26 (100.0%)

Q2 What is your role?

6 (22.2%) Regional TSSP Lead

21 (77.8%) TSSP advisor

0 (0.0%) Other (please specify)

Q3 In which TSSP region are you delivering support to schools? If you support schools in multiple regions please select all that apply

7 (25.9%) Derbyshire, Yorkshire and the Humber, and the North East

10 (37.0%) London and the South East

7 (25.9%) Central

5 (18.5%) The South West

5 (18.5%) The North West

If you are not sure, please enter the name(s) of the local authority/s in which the schools you support are based

Q4 Have you supported schools in the previous round of TSSP, from 2011-2014?

23 Yes
(85.2%)

4 (14.8%) No

Q5 Approximately how many schools did/do you support:

In Year 1? 25 (100.0%)

In Year 2? 26 (100.0%)

Q6 Were you involved in facilitating a triple science network?

18 Yes
(66.7%)

9 (33.3%) No

Schools' context

Q7 In your experience of working with schools in the second year of the TSSP (i.e. 2015/16), how keen do you think schools are to receive external support in developing triple science (TS) provision? Please select the statement that comes closest to your experience.

14 (51.9%) Most schools are very keen

10 (37.0%) About half of the school are very keen, but the rest are not

3 (11.1%) Most schools are not very keen

Please provide a comment on why you think this.

For verbatim comments please see Appendix 6.

Q8 Please rate the significance of the following barriers for improving TS provision in schools that met eligibility criteria for the TSSP:

Not enough specialist teachers for triple science 4 (14.8%) Very significant barrier

10 (37.0%) Important barrier

11 (40.7%) Partial barrier

2 (7.4%) Not a barrier

Lack of experience in delivery of the additional GCSE content required by triple science 0 (0.0%) Very significant barrier

14 (51.9%) Important barrier

11 (40.7%) Partial barrier

2 (7.4%) Not a barrier

Need for teachers to have subject specific CPD to teach triple science effectively 3 (11.5%) Very significant barrier

9 (34.6%) Important barrier

	12 (46.2%)	Partial barrier
	2 (7.7%)	Not a barrier
Triple science in option blocks or after school means students not keen to take it	3 (11.1%)	Very significant barrier
	6 (22.2%)	Important barrier
	16 (59.3%)	Partial barrier
	2 (7.4%)	Not a barrier
Insufficient teaching time allocated to TS	7 (26.9%)	Very significant barrier
	10 (38.5%)	Important barrier
	9 (34.6%)	Partial barrier
	0 (0.0%)	Not a barrier
Concerns about students' coping with the additional numeracy or literacy requirements of TS	3 (12.5%)	Very significant barrier
	9 (37.5%)	Important barrier
	12 (50.0%)	Partial barrier
	0 (0.0%)	Not a barrier
Concerns about students' coping with 9 exams as part of linear assessment	4 (14.8%)	Very significant barrier
	13 (48.1%)	Important barrier
	8 (29.6%)	Partial barrier
	2 (7.4%)	Not a barrier

New accountability measures (progress 8/EBACC) mean schools not providing TS as an option for students

5 (18.5%) Very significant barrier
 9 (33.3%) Important barrier
 6 (22.2%) Partial barrier
 7 (25.9%) Not a barrier

Lack of funding means schools not able to provide as many students to do triple science

5 (18.5%) Important barrier
 13 (48.1%) Partial barrier
 8 (29.6%) Not a barrier

Lack of SLT support for staff release for CPD to support delivery of TS

6 (22.2%) Very significant barrier
 12 (44.4%) Important barrier
 8 (29.6%) Partial barrier
 1 (3.7%) Not a barrier

Q10 On a scale from 1 (addressed barrier effectively) to 4 (TSSP is not really able to address the barrier), please rate the programme effectiveness in addressing each barrier you identified.

	Addressed barrier effectively	Addressed barrier to considerable extent	Addressed barrier to some extent	TSSP not really able to address the barrier
Not enough specialist teachers for triple science	2 (8.0%)	2 (8.0%)	13 (52.0%)	8 (32.0%)

Lack of experience in delivery of the additional GCSE content required by triple science	3 (12.0%)	6 (24.0%)	15 (60.0%)	1 (4.0%)
Need for teachers to have subject specific CPD to teach triple science effectively	5 (20.8%)	5 (20.8%)	14 (58.3%)	0 (0.0%)
Triple science in option blocks or after school means students not keen to take it	0 (0.0%)	3 (12.5%)	7 (29.2%)	14 (58.3%)
Insufficient teaching time allocated to TS	0 (0.0%)	1 (3.8%)	12 (46.2%)	13 (50.0%)
Concerns about students' coping with the additional numeracy or literacy requirements of TS	1 (4.2%)	10 (41.7%)	13 (54.2%)	0 (0.0%)
Concerns about students' coping with 9 exams as part of linear assessment	2 (8.0%)	7 (28.0%)	10 (40.0%)	6 (24.0%)
New accountability measures (progress 8/EBACC) mean schools not providing TS as an option for students	0 (0.0%)	1 (5.0%)	5 (25.0%)	14 (70.0%)
Lack of funding means schools not able to provide as many students to do Triple science	0 (0.0%)	1 (5.3%)	3 (15.8%)	15 (78.9%)

Lack of SLT support for staff release for CPD to support delivery of TS	0 (0.0%)	5 (19.2%)	11 (42.3%)	10 (38.5%)
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If you can, please comment or give an example of effective support to address the barrier

For verbatim comments please see Appendix 6.

Q9 Speaking overall about the schools you have worked with as part of the programme **in Year 1 (2014/15)**, do you know whether, on average, the numbers of students taking triple science in 2015/16 have...

- 6 (23.1%) Increased
- 1 (3.8%) Decreased
- 11 (42.3%) Remained about the same
- 8 (30.8%) Don't know

Q11 Why do you think this is?

For verbatim comments please see Appendix 6.

Impact of the programme

Q12 How effective has the TSSP been in supporting schools' improvement of each of the following areas? Please rate the impact on the following three groups, on a scale from 'high impact' to 'no impact', or select 'Not yet but I expect to see impact in the future'.

A. Impact on science teachers/technicians:

high impact	medium impact	low impact	no impact	Not yet, but I expect to see impact in the future
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Improved subject knowledge and understanding of areas of triple science curriculum	12 (44.4%)	11 (40.7%)	3 (11.1%)	0 (0.0%)	1 (3.7%)
Increased pedagogical knowledge, skills and understanding of triple science curriculum / assessment / practical work / literacy / numeracy	14 (51.9%)	12 (44.4%)	0 (0.0%)	1 (3.7%)	0 (0.0%)
Improved enthusiasm and confidence	14 (53.8%)	10 (38.5%)	2 (7.7%)	0 (0.0%)	0 (0.0%)
Use of new knowledge and skills to improve classroom practice	12 (44.4%)	15 (55.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Improved ability to lead/support colleagues' professional learning and curriculum development in TS subjects	6 (24.0%)	9 (36.0%)	6 (24.0%)	0 (0.0%)	4 (16.0%)
Use of new knowledge and skills to lead/support school improvements in teaching TS	6 (22.2%)	12 (44.4%)	6 (22.2%)	0 (0.0%)	3 (11.1%)
Improved technical skills for supporting practical work among teachers/technicians	6 (22.2%)	13 (48.1%)	4 (14.8%)	0 (0.0%)	4 (14.8%)

B. Impact on students:

high impact	medium impact	low impact	no impact	Not yet, but I expect to see impact in the future
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Improved attainment and progress in triple science knowledge, skills and/or understanding	2 (7.7%)	10 (38.5%)	1 (3.8%)	0 (0.0%)	13 (50.0%)
Higher interest in taking triple science subjects for GCSE	1 (3.7%)	14 (51.9%)	3 (11.1%)	1 (3.7%)	8 (29.6%)
Increased confidence, motivation and/or engagement in learning science in general	6 (22.2%)	17 (63.0%)	0 (0.0%)	0 (0.0%)	4 (14.8%)
Improved behaviour and safe working	1 (4.2%)	8 (33.3%)	7 (29.2%)	4 (16.7%)	4 (16.7%)
Improved engagement of 'pupil premium' students or other vulnerable groups in triple science offer e.g. Y8/9 options	1 (3.7%)	7 (25.9%)	7 (25.9%)	0 (0.0%)	12 (44.4%)
Improved gender balance of students studying TS subjects	1 (3.7%)	7 (25.9%)	5 (18.5%)	3 (11.1%)	11 (40.7%)
Improved motivation to study/ uptake of science subjects post-16	2 (7.4%)	11 (40.7%)	1 (3.7%)	0 (0.0%)	13 (48.1%)

C. Impact on department/school:

	high impact	medium impact	low impact	no impact	Not yet, but I expect to see impact in the future
Improved capacity of department to teach triple science	12 (44.4%)	13 (48.1%)	2 (7.4%)	0 (0.0%)	0 (0.0%)

Better sharing of effective practice and resources in triple science	12 (44.4%)	15 (55.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Improved leadership of triple science curriculum	9 (33.3%)	15 (55.6%)	1 (3.7%)	0 (0.0%)	2 (7.4%)
Increased progress and attainment of students in triple science	4 (14.8%)	10 (37.0%)	1 (3.7%)	0 (0.0%)	12 (44.4%)
Increased profile/priority of triple science in school	5 (18.5%)	15 (55.6%)	3 (11.1%)	0 (0.0%)	4 (14.8%)
More students wishing to take triple science	1 (3.7%)	10 (37.0%)	3 (11.1%)	1 (3.7%)	12 (44.4%)
Increased number of students considering studying science pre/post 16	1 (3.7%)	7 (25.9%)	2 (7.4%)	0 (0.0%)	17 (63.0%)
Improved quality of science teaching overall	10 (37.0%)	16 (59.3%)	0 (0.0%)	0 (0.0%)	1 (3.7%)
Support to colleagues in other department	2 (7.7%)	5 (19.2%)	11 (42.3%)	4 (15.4%)	4 (15.4%)

Q15 Have you observed any other wider positive outcomes from the programme in your schools? Please select any that apply.

- 4 (20.0%) Impacts on post 16 provision
- 8 (40.0%) Impacts on relationships between departments, teams, or levels of management
- 14 (70.0%) Impacts on schools' relationships with other schools or bodies
- 1 (5.0%) Other (please specify)

Q16 In addition to the impacts identified above, what other long-term impact(s) do you expect to see for the TSSP for the schools you have supported, if any? Please describe why you say this below.

For verbatim comments please see Appendix 6.

Q17 From your experience, to what extent has the TSSP been effective in supporting schools that have sought to address triple science outcomes for the specific groups of students listed below? If none of the schools you have supported have targeted these types of students, please select N/A and leave the comments blank.

	Very effective	Quite effective	Not effective	N/A
Students receiving Pupil Premium	2 (7.7%)	7 (26.9%)	2 (7.7%)	15 (57.7%)
Girls	3 (11.1%)	9 (33.3%)	1 (3.7%)	14 (51.9%)
Boys	1 (3.8%)	5 (19.2%)	0 (0.0%)	20 (76.9%)
Students receiving Free School Meals	1 (3.8%)	6 (23.1%)	1 (3.8%)	18 (69.2%)
Students with English as an Additional Language	1 (4.0%)	3 (12.0%)	1 (4.0%)	20 (80.0%)
Other vulnerable groups (please specify)	0 (0.0%)	1 (4.3%)	1 (4.3%)	21 (91.3%)

For verbatim comments please see Appendix 6.

Networks of excellence

Q20 In the first year of the programme, TS networks of excellence were identified as a challenging issue. In your view, did this improve, stay the same, or deteriorate in Year 2? Why? (Please write N/A if you were not involved in a TS network).

For verbatim comments please see Appendix 6.

Q21 In your view, what value, if any, was added by the TS networks of excellence activity?

For verbatim comments please see Appendix 6.

Attribution and sustainability

Q22 Would the positive changes/impacts you identified previously have happened without the TSSP? Please select the statement that comes closest to your view.

- 0 (0.0%) Yes, these changes/impacts would have occurred without the TSSP
- 1 (3.7%) Yes, but these changes/impacts would have taken longer to implement than through the TSSP
- 19 (70.4%) No, only some of these changes/impacts would have occurred without the TSSP
- 7 (25.9%) No, these changes/impacts would not have occurred without the TSSP

Q23 In your view, how sustainable are the changes/impacts that happened as a result of the TSSP?

- 3 (11.1%) Very sustainable
- 21 (77.8%) Quite sustainable
- 3 (11.1%) Not sustainable

Q24 What can be done to improve the sustainability of the TSSP?

For verbatim comments please see Appendix 6.

Elements of TSSP support

Q25 Do you have any other comments, or examples of the effectiveness of the different types of support offered by the programme, e.g. online community and resources?

For verbatim comments please see Appendix 6.

Q26 How, if at all, could the specific support elements of the Triple Science Support Programme, or the overall support given to schools, have been done better?

For verbatim comments please see Appendix 6.

Appendix 5: Data from Y2 programme documents: needs analysis and action plans

In the needs analysis schools were asked what the main barriers/reasons are that limit further student uptake of triple science. In total 29 Y2 needs analysis forms were analysed:

Barrier	No. schools (n=29)	% of schools
Student ability / attainment	14	48%
Staff experience / specialism / confidence	10	34%
Student interest / aspirations / understanding of post-16 study and careers	8	28%
Curriculum time	8	28%
Staff capacity / staffing stability	6	21%
Practical work / ability to delivery practical work	6	21%
Option system	6	21%
Other	6	21%
Profile of science in school	3	10%
TS restricted to most able students	3	10%
New curriculum	3	10%
School factors	3	10%
Quality of teaching	1	3%
Student confidence	1	3%
Assessment	1	3%
Training / review time for teachers	1	3%

In the reviewed action plans schools were asked what impacts they have seen/expect to see on the teachers participating in the programme, other colleagues in the department, and student outcomes. In total 46 Y2 reviewed action plans were analysed. For the reported impacts, some schools additionally rated the indicator before and after they received the support, on a scale of 1-4 with 1=a little, 2=moderate, 3=high, and 4=very high. Their summarised scores are shown on the next page.

	Impact	No. schools reporting impact (n=46)	% of schools reporting impact	No. schools with impact scores	Average 'How would you rate your department on this before support?'	Average 'How would you rate your department on this after support?'	Change before to after
Impacts on teachers	A. Improved enthusiasm and confidence	21	46%	14	2	2.9	0.9
	B. Improved subject knowledge and understanding of areas of triple science curriculum	18	39%	14	2	3.4	1.4
	C. Increased pedagogical knowledge, skills and understanding of Triple science curriculum / assessment / practical work / literacy / numeracy	18	39%	15	1.7	2.9	1.2
	D. Use of new subject and pedagogy knowledge, skills and understanding	22	48%	17	1.6	3	1.4
	E. Improved knowledge and skills in leadership and management	4	9%	4	1.5	2.8	1.3
	F. Use of new leadership and management skills	2	4%	2	2	3	1
	G. Improved technical skills for supporting practical work	6	13%	5	1.6	3.2	1.6
	Other (specify)	2	4%	0			
Impacts on colleagues/	1. Improved quality of teaching overall	25	54%	20	1.9	3.1	1.2
	2. Improved leadership of Triple Science curriculum	8	17%	8	1.9	3.2	1.3

departments /school	3. Increased progress and attainment of pupils in Triple Science	9	20%	8	1.6	3	1.4
	4. Increased profile/priority of Triple Science in school	2	4%	0			
	5. Improved sharing of effective practice and resources in Triple Science	13	28%	11	1.8	3.1	1.3
	6. Increased number of students considering studying science pre/post 16	3	7%	1	2	4	2
	7. More students wishing to take triple science	5	11%	2	1.5	2.5	1
	8. Improved leadership of the science department/science curriculums	0	0%	0			
	9. Increased capacity of department to teach triple science	6	13%	5	1.2	2.4	1.2
	10. Support to colleagues in other department	1	2%	0			
	Other (specify)	0	0%	0			
Impacts on students	a) Improved students' attainment in science knowledge, skills and/or understanding	17	37%	14	1.9	3	1.2
	b) Improved students' progress in science knowledge, skills and/or understanding	22	48%	17	1.6	2.8	1.1
	c) Confidence, motivation and engagement in lessons	21	46%	14	1.7	3	1.3
	d) Improved behaviour and safe working	2	4%	2	1.5	2.5	1
	e) Improved engagement of FSM, girls, or other vulnerable group in triple science offer e.g. Y8/9 options	7	15%	5	1.4	2.7	1.3
	f) Other (specify)	1	2%	0			

In the Action Plan schools were able to comment further on the support they received and the impacts there have been. A selection of verbatim comments is provided below:

Impact on teachers

"Staff are enthusiastic about the ease of use and potential for student engagement, stretch and challenge with the activities (e.g. algal balls and triplicate paper). The non-traditional approach is encouraging them to think 'outside the box' in terms of encouraging students (and teachers) to think creatively and make links."

"Teachers have appreciated the CPD sessions. They have gained a great deal of confidence from TS specialist. Staff have commented on their increased confidence. Observation feedback is evidence of this."

"Observation feedback and walk in have provided evidence of an improved confidence in the delivery of TS. This in turn has led to a revived enthusiasm. The resourcing of the new TS specification is evidence of this. Staff feel better prepared to plan and deliver new materials. The opportunity to collaborate and work on the new practicals has supported staff. Observations and feedback have demonstrated a deeper appreciation and use of newly acquired and refreshed skills."

"Staff are clearer in their understanding of TS specifically the changes. Knowledge and pedagogy has increased. The planning and resourcing of the new materials is evidence of this."

"A chance to initiate thinking, planning and doing an actual experiment was vital for staff to see the practical activities from a student's perspective."

"Meetings and discussions have been extremely useful with inexperienced staff members and TLR holders. Results of the meetings have led to a clear direction in the development of the new SOW. Coaching the New members of staff have highlighted an increased confidence in their pedagogy and deliverance of the current KS3 SOW."

"The CPD supported staff and was an opportunity to collaborate as a team. The CPD gave colleagues an opportunity to practice and learn new skills."

"Staff feel prepared for the new linear assessment and are fully informed of the changes taking place. They would welcome further support of this nature. They appreciated the bespoke nature of the CPD."

"The staff have found using visual tools to structure learning to be extremely useful and everyone in the team has tried it, and kept going back to it so that it is becoming part of embedded practice, i.e., they can even set it for a cover lesson now and the pupils know exactly what they are doing. This is a shift in their pedagogy and they can see the value. One teacher spoke about how he was using them as advance organisers to signpost the future learning."

"There had been some use of visual tools previously, but they recognised that with the underpinning evidence-base of why they are so effective when used constructively, they can make a big difference to students structuring and organising their own learning. They also recognise that

there are a group of students that, being uncomfortable with an approach that required them to think more, and who 'just wanted to do be told what to write', that these methods can offer an appropriate challenge to help change that learning attitude"

"The SOLO session was also perceived of great use, and is already being utilised into the new Y9 scheme of learning, starting from scratch for the new AQA GCSE specs starting in September 2016. They are building in SOLO ideas as going through, preparing for change. The HoD views this as an opportunity to get things better for all students, not just TS. Key to this is a high quality SoL that will engage students and enable them to make progress. There was a discussion of mapping progress in cognitive, conceptual, and procedural demand, and the possibility of building in assessments for these so that evidence from assessment instruments can be used to inform future planning and teaching."

"Solo lesson planning now used across all KS and included in every lesson discussion."

"The exam revision session was well received and will be quickly assimilated and implemented into current practice, as this is very timely for them."

"Approx. half of the dept. are in their NQT year and so better use of data to inform planning has been important to increase their effective use of data."

"Department has the new practical activities now in the SOW and staff are using the tips from the CPD."

"The physics session was really useful for filling gaps in subject knowledge."

"Teachers are doing practicals that they hadn't done before because they didn't know how to do them, eg lenses."

"Staff have also been very active with IT and data-logging, trying to include more within their lessons."

"The department has designed and developed writing frames to help pupils with answering application and long answer questions after the training that are now in the SOW."

"Hinge point questions and other strategies shared at dept CPD session now being used by every member of staff in the department."

"The things that they found most useful were how to break down and analyse exam questions, different revision strategies and resources, and using data more effectively for progression. They intend to spend time as a team developing these further."

Impact on colleagues / school

“Leadership are better informed and updated of the changes in TS. Resourcing of the new TS has demonstrated a collaborative approach. Sharing good practice at the leading change meeting will progress this further and forge working partnerships.”

“The work done diagnosing the needs of the faculty gave the current TLR holders an insight into the needs of the faculty. Being involved in implementing the Action plan and analysing the department was a good opportunity and insightful for the TLR holders. This has given them experience in management and leadership.”

“There are now buddy groups which share planning and resources improving time management within the dept.”

“The SL feels better equipped to move the department forward with their science teaching.”

“For a new school/new SL the opportunity to have consultancy support which is external to the schools and acts as a critical friend is a real opportunity and should be available to all, this was a very supportive model.”

“The importance of collaboration has never been more important and the department is better at sharing ideas as a result of the CPD we have received. We do really appreciate all the excellent support and training we have received.”

“There had been a raised profile of science within the school because some of the training involved pupils directly. Indeed, some photographs taken during the training had been used in the school newsletter and on the web site.”

“Diagnosing the needs of the faculty has been a very positive and thought provoking experience. This has identified the needs of the staff and we have been able to implement training to support them. Staff are much happier reflecting on their needs and sharing their concerns about the future of TS. Staff appreciate an outsider coming into school who is independent of the school but has science knowledge and the understanding of teaching TS recently. We feel that we have been offered a lifeline to support us in planning for all the changes in TS and science as a whole. The fact that the facilitator was a recent science teacher has made a massive difference in terms of the response of attendees.”

“Reflecting on the needs of the faculty has been enlightening. We do not usually have the opportunity to practice this.”

“Contacts are being made through leading change for example. This will be explored further and networking will improve the quality of resources and planning for future changes to TS.”

“I can recognise trends and patterns through data and student voice to enable me to address any problems that might arise. Use information from sessions to boost the profile of science which motivates students and therefore has a massive impact on behaviour and attitude to learning.”

Impact on students

"The exam analysis and intervention has meant that classroom teaching and intervention lessons are more effective at addressing pupils weaknesses. The data analysis also led to effective strategies to tackle long answer questions and data analysis that are now being used with students."

"Improvement in attainment in investigation type questions as evident in strip analysis of exam questions. Student voice will highlight the increased use of investigations to encourage students to plan and generate questions for themselves."

"Forecast exam results are higher."

"Internal pupil data shows good improvements – and had focused on numeracy and practical skills; students are more positive about their learning in science."

"More practical activities seen in lessons after the session however awaiting March progress data to see impact on pupil progress."

"40% pupils in Y9 made 3LP in Sept compared to 60% making 3LP in March which is felt is due to the changed pedagogy with the group. Change in pedagogy to use more independent problem solving approach in science."

"The independent problem solving approach motivates and enthuses pupils in science to make better progress."

"There is very good attendance at the intervention classes – even pupils who do not need to attend due to the targeted sessions from the exam analysis and use of the tools to support better writing and data analysis. The students are more motivated in science."

"Students have improved their skills in preparation for the new assessments as a result of improved teaching. Students are more engaged and motivated in TS as the lessons have improved resources and better planned."

"As the teachers' incorporate the strategies learnt, teaching and learning has improved."

"The physics scheme of learning has been re-written, is currently being taught and is working well. It includes more practical work and hence greater student engagement."

"Climate walks have shown that when Teachers give more enquiry based tasks, pupils are more engaged and make better progress."

"As regards pupils, they seemed to be more confident in trying things in lessons. Some of the 'vulnerable group' students seemed to be more engaged in class where the ideas had been put into practice. Staff realised that these students can be engaged if the lesson is targeted to do this."

"More students are self-assessing than before. They appear more confident and motivated and some of the disenchanted have been more engaged. This has been evidenced in student feedback to staff and feedback from colleagues to the HoD. The inclusion of ideas into the SoW should mean future students benefit from the training the teachers had this year."

“The students have been introduced to SOLO, and will be undertaking assessed SOLO interventions in each of the subject areas on a half-termly basis. We also discussed future plans for mapping out SOLO rubrics, linked into existing intended learning outcomes, that would enable peer and self-assessment, encourage progression and provide stretch and challenge.”

‘What would you change if you were going to do the same actions again?’

“Same support, but more time to enable the support to be with the department as a whole – there was no time in the school calendar – the support has been cascaded and others involved have gone away and worked on taking it forward at home in their own time.”

“More sessions and more time. Preferably not after school. Ideally as more full training days. It would be appreciated if [Advisor] could deliver a full day workshop to implement some of the ideas that have been discussed into the new resources for TS.”

“Getting on board earlier would have allowed more opportunity to attend sessions for example the leading change meetings. The whole staff CPD sessions may have been better appreciated during the day rather than after school.”

General comments

“The support we have received through the programme has been invaluable. Independent external input is appreciated by all in the department and as a subject leader being able to call on external support has been useful especially in the context of the mock examination paper analysis, the tailored support on exam preparation and the subsequent support for maths in the new GCSEs.”

“The TSA support to interview pupils and observe lessons to look at why engagement and enthusiasm was weaker in science in Y9 for the needs analysis has had the most impact as it targeted the really effective CPD to the pupils/teachers need.”

“The HoD feels that the department have benefited from the in-house CPD in a way that one teacher going to an external event could not have achieved as they have been able to work as a team and discuss things during the sessions. An increasing effort was made in the planning to incorporate aspects that they would be able to see how to use in their own practice and hopefully put into practice immediately. The challenge now will be to maintain momentum and provide opportunities to develop practice.”