

Science at William Stockton and Wimboldsley Primary Schools



Science at William Stockton and Wimboldsley Promotes ...
A Climate of Enquiry Exploring Ideas Finding Solutions



A2 A5

A Vision for Science...

How we have used our Science Principles

Science in the Early Years Foundation Stage



Continuous Provision that promotes... Discovery, Finding Out,
Exploring and Investigating



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A2 A5

Science Working Walls in Key Stages 1 and 2



Our Ambassadors **promote** Curiosity, Engagement and Enthusiasm in Science



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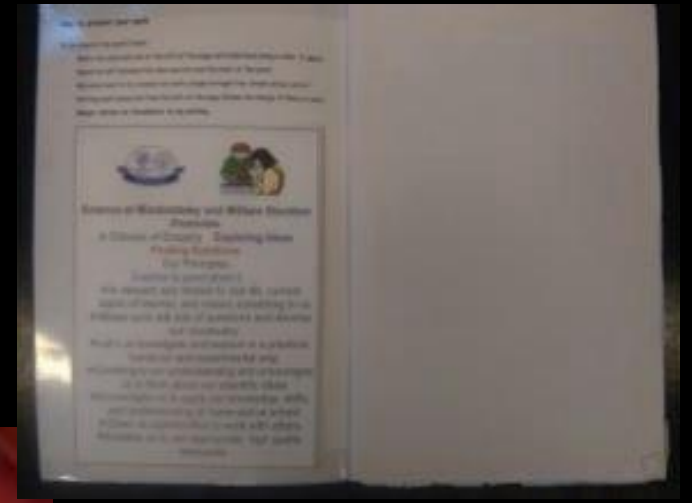


A2 A5



Valuing the Recording of and Progress in Science

High Quality Workbooks across
the School



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A4
D2
C3

We learn beyond
the classroom

Science Around our Schools

The Importance of Science



We love to share
our learning
through Twitter



We celebrate
our Nature
smart learners
every week



Newsletters
keep our
parents
informed and
engaged



We seek out
Scientific
opportunities within
the locality



High quality, accessible
resources

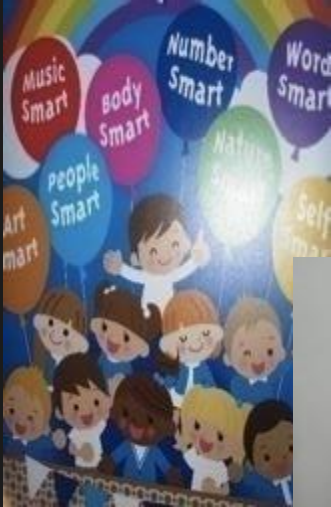


Sharing our learning



A4

Every Friday in our celebration Assembly we have an opportunity celebrate our nature smart rosette.

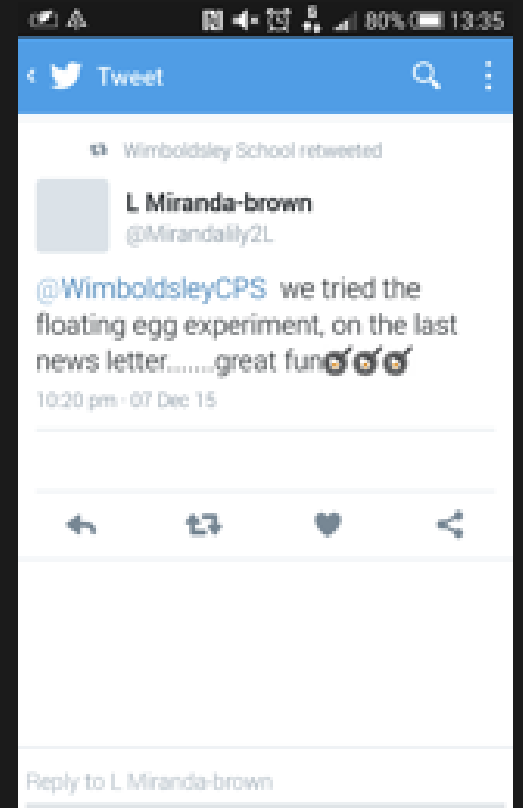


The Importance of Science



Our School Display features ..
Scientist of the month (November is Marie Curie),
what's new in Science – recent findings, studies
in all aspects of science from all around the world
and our monthly Science homework. Our
Science principles are at the centre of the
display.

Our monthly science homework is shared with the children and parents via our weekly newsletter and our school twitter account



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A1
A5

Science Subject Leadership at William Stockton and Wimboldsley



The Science Team lead whole school assemblies. Class assemblies share the Science that is being learned around the school each week.

The Science Team lead by example. They deliver collaborative lessons that encourage the children to follow their own lines of enquiry. Would this make a good mop? What if the spillage was jelly rather than water?




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A1
A5
B1

Science Subject Leadership at William Stockton and Wimboldsley



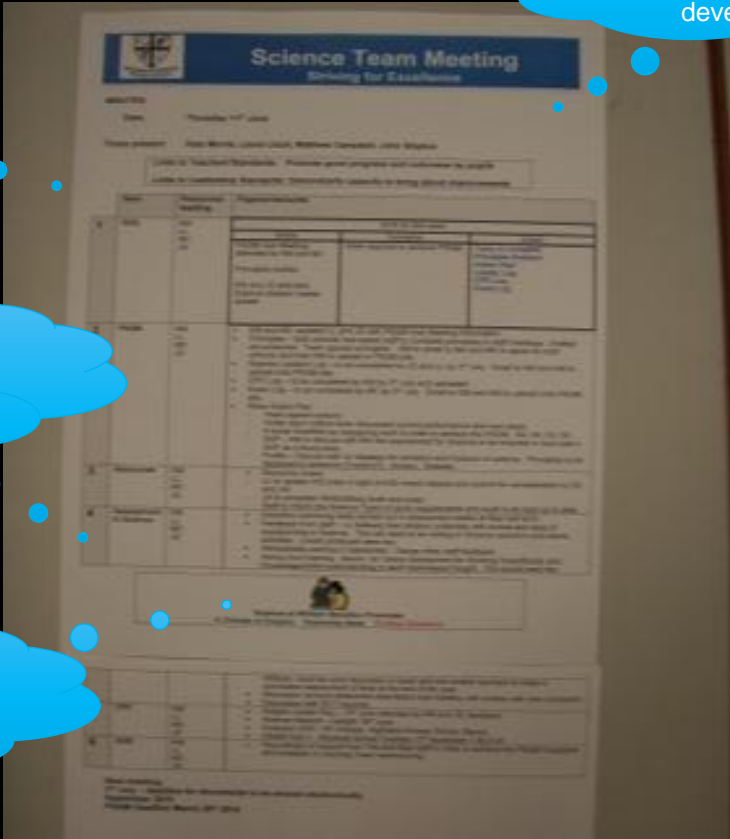
The opportunity to observe teaching in Science alongside the SLT helped with quality assurance and moderation.

It was great to see the raisins dancing challenge from our staff meeting in the Year 3 lesson I observed.

I am clear about how our monitoring is going to impact on learning and progress.

I feel supported in the team as I am surrounded by experienced colleagues who support me in developing my skills.

Audits help the Science Team assess their progress in key areas of subject leadership such as policy making, teaching, learning and assessment, and monitoring.



The Federated Team meet regularly and minute their meetings. They focus upon the impact that their leadership is having on improvements through bring about any necessary changes and monitoring effectiveness of the provision and practice in the two schools.



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My Performance Management Target is clear on how I should work to improve the quality of Science teaching and learning across the school

A1
A5

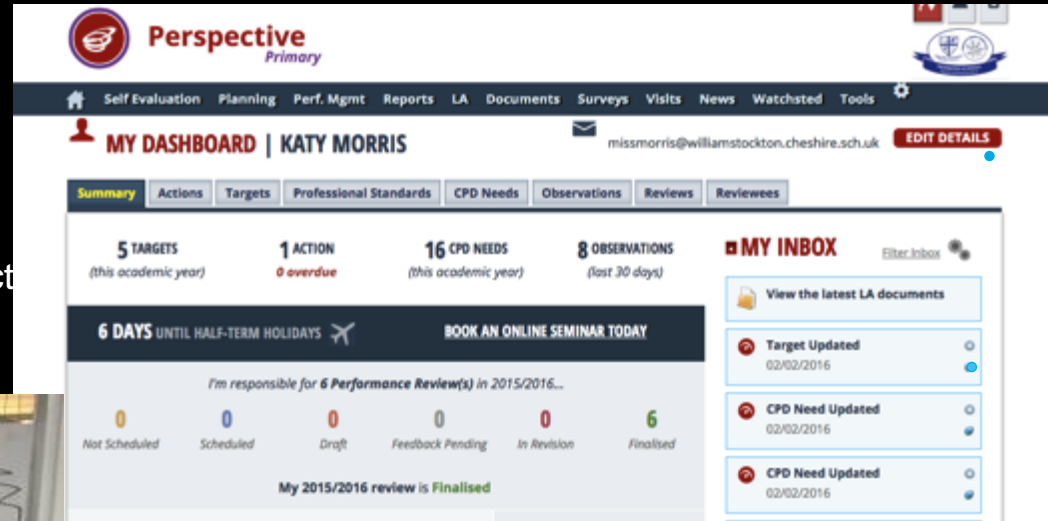
Monitoring and Evaluation of Science

An Effective Science Subject Leadership Team

Perspective On Line Monitoring system

All staff have logins to access their own individual feedback

CPD needs are documented and the Impact of staff CPD monitored.



Discovery Dog was observed being used well in a Year 1 class during an external Teaching and Learning Review.

The Perspective system means I can access instant feedback about the Science teaching and learning in my class.

SLT login to Quality Assure and moderate judgements

Performance Management Targets linked to Science are reviewed

I am able to feedback my actions following CPD to ensure that I can have a wider impact on outcomes in Science



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Developing our staff... supporting our children

The starter activity in the Science staff meeting tonight was great, I will definitely use it in my next lesson. The challenge card really helped I will be devising a set for my class.

Year 4 Teacher

Impact forms encourage reflection and the sharing of practice that will impact on Teaching and Learning.

Staff say ...

The Evolution training provided me with useful websites and resources to use in class. These websites were for children and teachers. They helped to develop and further my own subject knowledge as well as the children's. This website in particular was really useful for me:

The session provided me with activities and resources which were fun, practical and hands on. During the twilight, we took part in many of the activities which I then used with the children. We worked with teachers from other schools and shared ideas about ways to approach this topic. I have enjoyed teaching evolution and my children have gained a vast knowledge of a new topic.

Year 6 Teacher

After the observation I did in lower KS2 I implemented various teaching and learning techniques into my own classroom during my science lessons and in other subjects. Prior to the observation I didn't feel very confident in teaching science where as now; after discussion and ideas from the class teacher and then; science subject leader; I feel much more confident with the structure and flow of my lessons. Where as before I would focus on the outcome and what it would look like in the science book I am now much more confident in teaching practical sessions and leading through enquiry and asking questions which has resulted in a much more positive response from the children and a deeper understanding.

Year 1 NQT

Another informative session from Debbie and the Primary Science Team. I feel much more confident to make links between my Literacy, Maths and Science.

Year 2 Teacher



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Teaching and Learning



I love our Science assemblies. We get to show off everything that we have learned.



Science is all around us!
We are learning all the time!
No opportunities are missed
including lunch and snack time



Learning is active. Children develop their ideas to show what they have learned and embed this knowledge by explaining it to others.



Look at how our nursery morning children can label parts of the body

The Nursery children work collaboratively and cooperatively to find out about Science in their everyday lives. Photographs capture and celebrate their learning.



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B1 B2 B3
C1 C3

Teaching and Learning



The experiments are great. I feel like a real scientist.

Children work collaboratively and cooperatively.

Science is lots of fun, loads of writing, really exciting, finding lots of new things out. It is the best!



Investigating and Exploring independently.
EYFS and KS2



Showing how ICT can support our learning. Recording the Evolution 'headlines' in the style of a news report on the mini pads.

Outdoors



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B1 B2 B3
C1 C3

High Quality Resources that support Science and impact upon Teaching, Learning and Assessment

Working with Hoops for Health was fantastic. I really want to know more about how my body works and how Science can help me get better at sport. The athletes were so inspiring!



Our Kagan groups are great in Science because it means that we get to work together and share ideas.

Working in a Kagan 4 to collaborate on an investigation. We support each other with peer and self assessment.

Well prepared and organised lessons.

Wow, look at how many magnets can stick together!



Challenging Science starters engage children in their learning and support assessment.



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B1 B2 B3
C1 C3

High Quality Resources that support Science and impact Teaching, Learning and Assessment



... What can you see?
Look and observe closely

A detailed audit provides staff with knowledge of the resources available to support their teaching.

Science is interesting, fun and exciting. I love it when we go out outside for Science.

Learning both indoors and outdoors in Science is essential. Children are provided with opportunities to extend their learning independently.

Handwritten notes on a form:

Oscar Charvillat
6th October 2015
10:45am

"I'm watering the plants 'cos they're not growing" said Oscar outside "Gems needs grass seeds" he added matter of factly. Fabulous gardening knowledge"

Area of Learning	15-30 months	30-45 months	45-60 months	60-75 months
Personal Development				
Physical Development				
Communication				
Mathematical Understanding				
Science and Technology				
Art and Design				
Music				
Physical Education				
Health and Well-being				
Learning and Development				



It was so exciting when the seeds arrived we did not know what was in the envelope.

Science Audit

Area	15-30 months	30-45 months	45-60 months	60-75 months
Personal Development				
Physical Development				
Communication				
Mathematical Understanding				
Science and Technology				
Art and Design				
Music				
Physical Education				
Health and Well-being				
Learning and Development				



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B1 B2 B3
C1 C3

Scientific Enquiry

Feedback and marking that encourages reasoning in enquiry. Why did the plant in the freezer die?

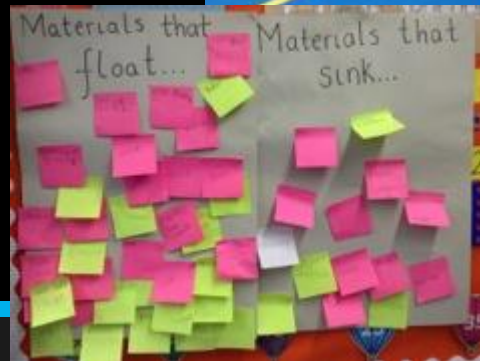
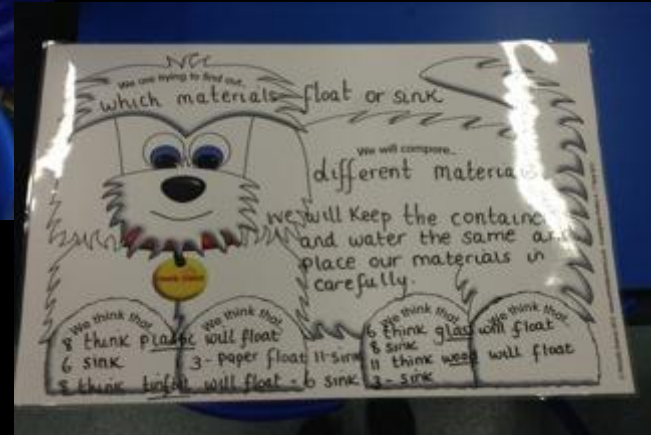
What material is best for a house for the Three Little Pigs?
Linking with Literacy and Investigating materials



How might we look after an egg?
What changes will happen over time? How have we changed since we were babies?



Which materials float or sink?
Finding out with Discovery Dog!



Which material is the most absorbent for Cinderella to use to mop up a spillage at the ball?
National Storytelling Week



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Scientific Enquiry



A 'live' whole school investigation on display in the main entrance

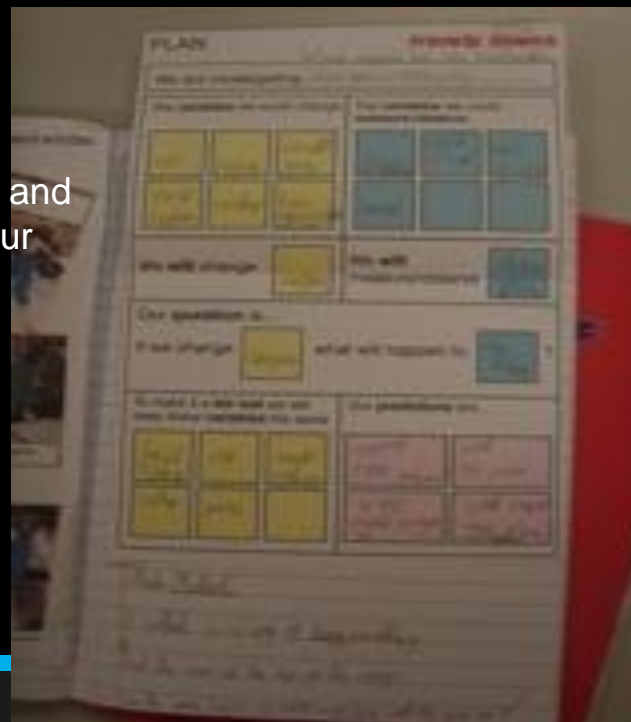
Through Twitter we extend opportunities for Science enquiry into our children's homes. Children follow up their learning from school.



Observing intently!

Using Investigation formats and post it notes to scaffold our planning.

A 'live' investigation in British Science Week keeps everyone engaged as biscuits and orange juice are used to model the process of digestion.



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Enjoyment of and Enthusiasm for Science



Our youngest children in Nursery are encouraged to be inquisitive and curious. Evidence is captured in Learning Journeys.

What have you enjoyed most in Science?

The experiments with volcanoes and eggs. Finding out which egg got destroyed the most!

Do you find Science interesting?

Yes I would give it 99/100!

The Reception children loved wearing their white coats and goggles to show how in their Investigation area they discovered that they can change milk into cheese.

A Tweet from home following up the Science challenge from our weekly newsletter



I love it when we make things EXPLODE!

Science is amazing! The world is full of science from a tiny micro-organism to a huge burning ball of gas we call the sun. There is so much to learn and explore, from a tiny ant to a huge elephant. Science is the study of the world and all it's glory.

Connor Year 5



Practical and Exploratory



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Assessment in Science

[illegible]

EYFS observation sheets for Understanding of the World enable assessment against Development Matters and the EYFS Profile.

Assessment is crucial in guiding my teaching.
Assessment supports my differentiated learning opportunities.

I enjoy the opportunities we have to assess our own learning. It helps me to know my next step and targets.














Using the Science Key Objectives helps me to assess my children's current progress and next steps.

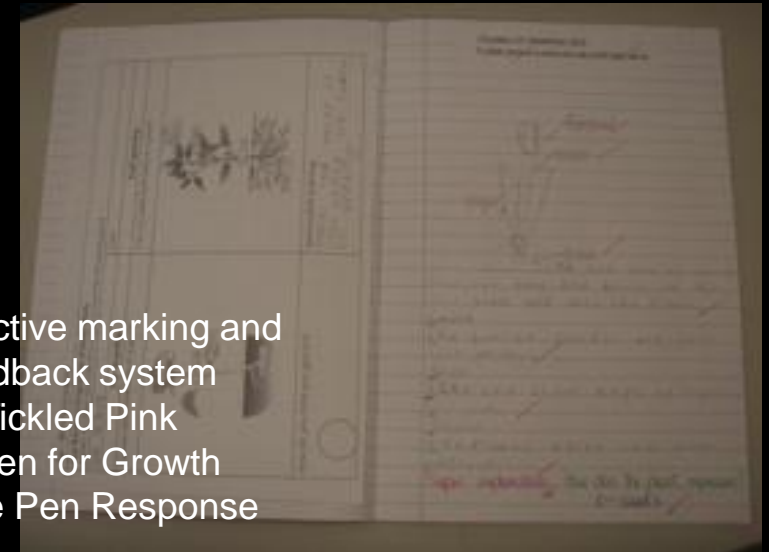
Pre and Post Learning Challenge Sheet support both self assessment and teacher assessment.

Green marking means something to work on, to help you understand it better .



Kagan Structures support assessment in Science. Market place style activities in which children teach other children about their learning are used regularly.

Year 2 Science Programme of Study: Uses of everyday materials Identify the uses of a variety of everyday materials			
Date		Date	
Pre-learning		Post-learning	
Can you draw something made from each of these materials?		Can you draw something made from each of these materials?	
Wood 	Metal 	Wood 	Metal 
Plastic 	Glass 	Plastic 	Glass 
Brick 	Cardboard 	Brick 	Cardboard 
How do you think you got on? 		Memorable learning If you draw on a glass it will be gone	



An effective marking and feedback system

- Tickled Pink
- Green for Growth
- Purple Pen Response



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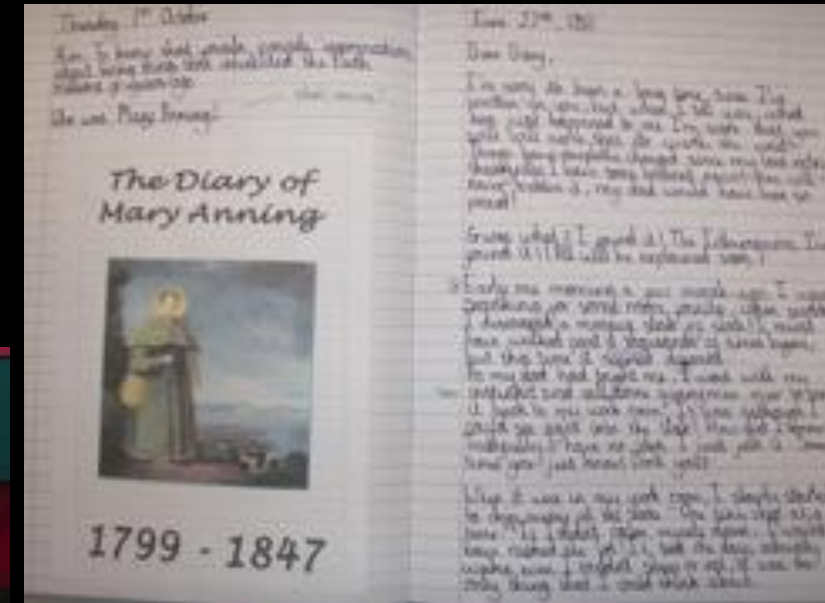
Whole School Initiatives and Cross Curricular Links

Observing change through regular cooking activities in EYFS.

Literacy through Science



Outdoor Learning



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Whole School Initiatives and Cross Curricular Links



Using Jessica Ennis and a Learning Challenge in PE helped Year 2 investigate does having longer legs help you to jump further?



Science Week Tweets



Maths through Science



STEM Festival



Year 6 supported the Cheshire West and Chester Dog Fouling campaign in their Science through the 'Poo Project'.



Cinderella ... a starting point for investigating absorption



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C1
C3
D2

Links

Other Schools ... Agencies ... Visits ... Visitors

Year 2 at Burwardsley
Science concepts
through a residential,
working outdoors and
fieldwork
Change of state -
Melting
Materials-
Waterproofing
Sorting and Classifying

Reception exploring at the
MOSI in Manchester

A whole school plan of
regular visits and visitors.
Devised with the staff
in a science staff meeting

Twitter is actively used for
sharing Science with parents,
governors, and visitors



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Fieldwork out and about in
Delamere Forest

Links

C1
C3
D2

Other Schools ... Agencies ... Visits ... Visitors



A
Wimboldsley
Wow!



British Science Week Assemblies



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