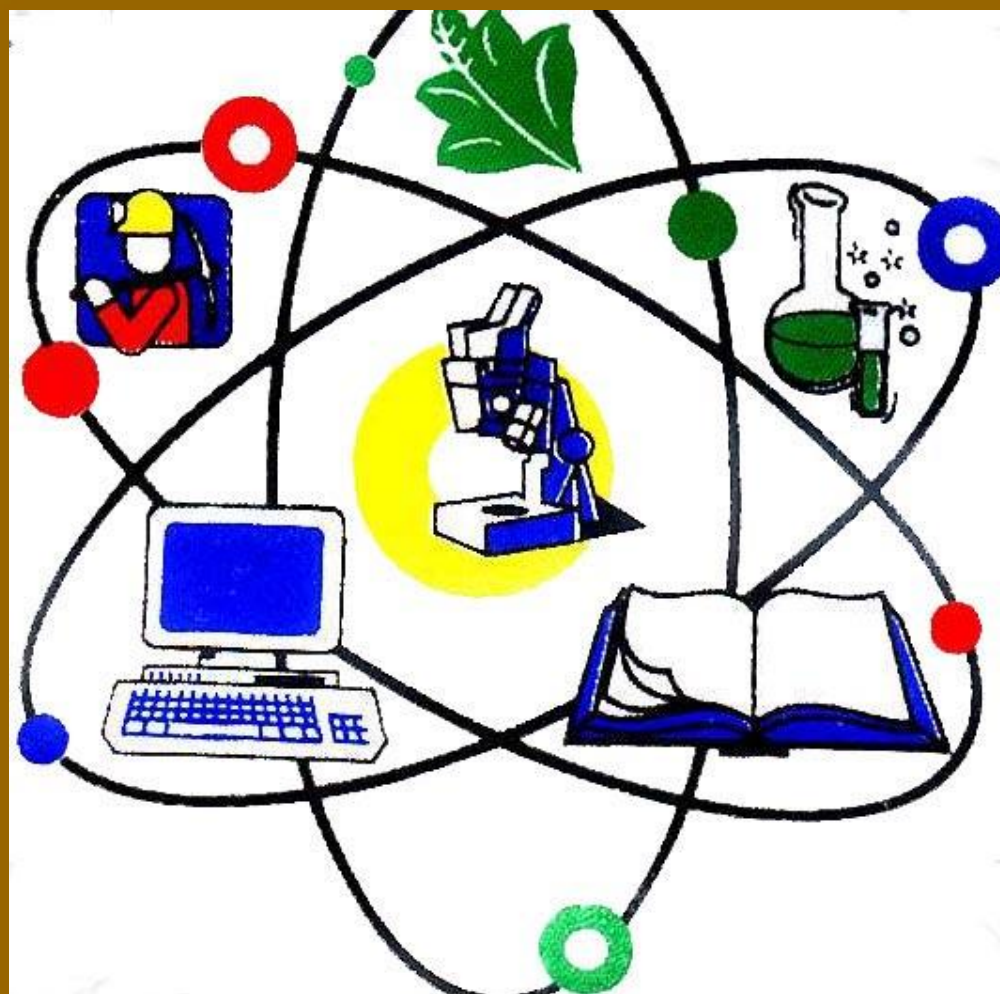


# Pownall Green Primary School

*Love learning, love life!*

## ONLINE SUBJECT LEADERSHIP TEAM 2016-17



### Science and technologies team 2016-17

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Over the 2016-17 academic year, our Science and Technologies team have been 'on-line'. They have taken part in a CPD programme to develop their subject leadership skills as well as leading a school improvement project in their subject areas.

Our science and technologies team is made up of the subject leaders from: Computing, Design Technology, Forest Schools, Food Technology, Mathematics and Science.

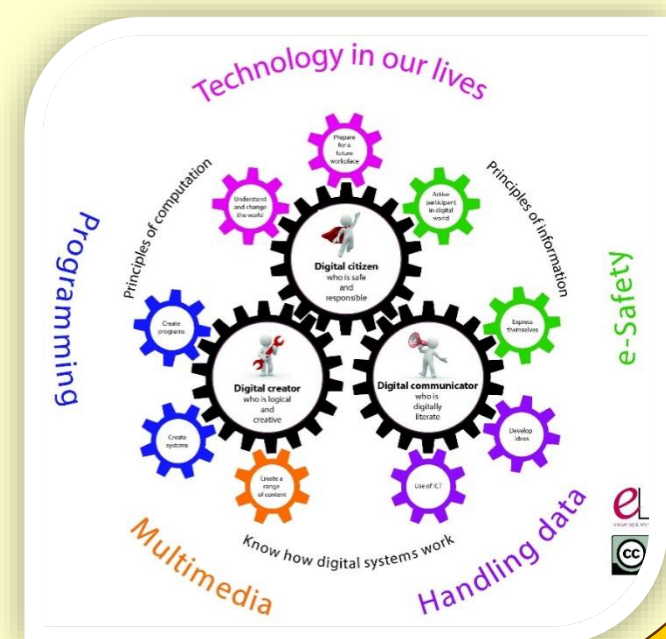
# Computing

## Actions in 2016-17:

- We have raised the profile of Computing at school through Staff training and theme weeks.
- Conducted pupil voice to find out their opinions of computing at school.
- Theme weeks: Rosie Revere, Engineer and recipe book.
- Implemented a new scheme of work and detailed medium term planning to reduce work load. *(Revised July 2017)*
- 1:1 meetings to discuss new planning and look at some of the software.
- Implemented staff training/meeting.
- Updated and refreshed the website.
- Moving the VLE to the website, so that it is easier to maintain and showcases life at Pownall Green Primary School.
- Purchased Foldr to enable the smooth movement of files/photographs from iPads to the computer and vice versa.
- New computer science apps e.g. kodable
- Introduced Lego WeDo and added to scheme of work.
- Joined CAS hub and computing network.

## Future steps:

- Repeat pupil voice.
- Staff audit of medium term planning.
- Continue training to allow teachers and teaching assistants to have hands on experiences.



## Impact

- Children enjoy computing at all levels, especially Computer Science.
- Increased in staff confidence.
- Detailed Scheme of Work and medium term planning.
- Update of school resources.
- Better equipped children for the technological world.

## Key learning points

- Computing is not just learning how to use a tool e.g. PowerPoint (Computer Literacy) but also learning how things work behind the scenes e.g. Scratch (Computer Science). This is the world we live in.
- Children need regular exposure to all aspects of computing.

# Design Technology

## Actions in 2016-17:

- Raised profile of the subject with the theme week
- Displays down the Year 3 / 4 corridor
- A D&T Stockport subject leader group has been established and we have attended the first meeting
- Met with an advisor and J. Peters to look at planning and how we can 'tweak' the planning to ensure true D&T is being taught.
- Staff meeting covered the changes to D&T under the New Curriculum and highlighted the shift in focus from 'recreation' to 'innovation'
- Altering ways we teach the subject (projects can be blocked and taught across a day)
- Highlighted next step is to look at the progression of skills across school

## Future steps

- Meet with teachers and plan 3 D&T projects across the year (one to be food based)
- Staff audit
- Pupil voice
- Plan a progression of skills framework so year groups know which D&T skills they should be practising



## Impact

- Most impact for subject leader in knowing what steps we'll now need to take to improve D&T teaching in school.
- Years 3 and 5 have trialled the problem-based approach projects which has high pupil engagement.

## Key learning points

- A problem needs to be solved (this is the driving force behind the project)
- Any design a child makes must be testable
- Some designs should fail – meaning children will need to consider what they would do next time (also link with growth mind-set)
- There are 6 D&T essentials to consider;
  - ✓ User
  - ✓ Purpose
  - ✓ Functionality
  - ✓ Design Decisions
  - ✓ Innovation
  - ✓ Authenticity

# Food technology

## *Actions in 2016-17:*

- Theme Week to kick off the year - the whole school was involved in cooking.
- The profile of Food Tech has been significantly raised in school.
- All year groups have taken part in Food Tech projects throughout the year.
- Thursday Club have done cooking activities to improve confidence and social skills
- Forest Schools have incorporated outdoor cooking into their sessions
- The Food Tech room is a functioning space with appropriate resources/equipment.
- The planning has been revised to ensure that all year groups are following the National Curriculum objectives.

## *Future steps*

- Staff should continue to dedicate time for food projects to be delivered in small groups.
- Parents are to be consulted and asked to volunteer with cooking groups. This will ensure that cooking sessions can be done more often.

## Impact

- Cooking skills for life are embedded across school.
- The Food Tech room is a functioning space with appropriate resources/equipment.
- The planning has been revised to ensure that all year groups are following the National Curriculum objectives.

## Key learning points

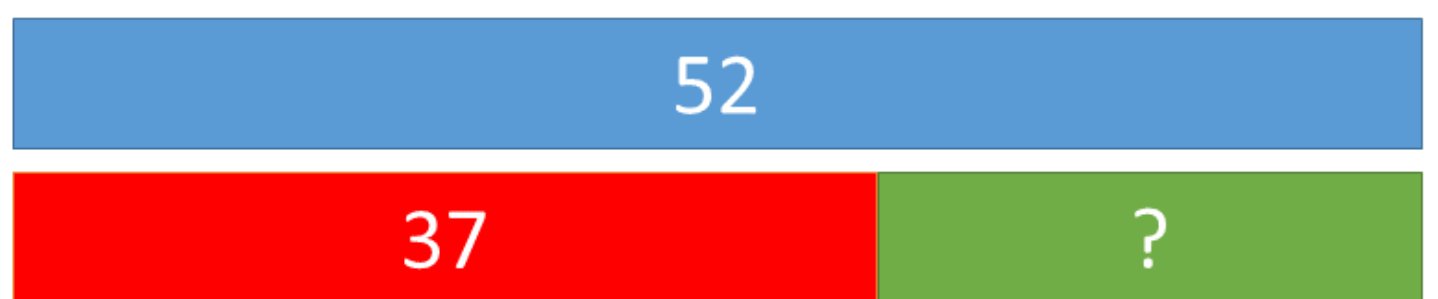
- Cooking is for fun but also enhances topic work, for example the Y5 Stone Age stew/soup.
- Healthy lifestyles and making healthy choices in cooking are important.
- There is a focus upon safe cooking skills when using heat and sharp implements.



# Mathematics

## Actions in 2016-17:

- Aims of new curriculum now firmly embedded and Maths Scheme of Work ensures coverage of all the N.C. objectives.
- Place value, number and arithmetic skills being taught in line with the weighting of the N.C.
- Inverse operations being taught side-by-side.
- Training and development on the use of the Maths Toolkit has helped to facilitate the teaching and learning of greater depths skills set.
- Staff training on use of models (bar method) and Numicon.



## Impact

- Progress and attainment good with around 90% expected to meet year group expectations (based on PUMA test results).
- Children beginning to use reasoning skills and are being given opportunities to explain their learning.
- Children are understanding the links between the four operations in number.

## Key learning points

- Continue to develop fluency and reasoning in numbers through decision making and choosing the most efficient method to calculate.
- Maintain and develop problem solving skills.
- Develop the set of skills that lead to greater depth in maths.
- Continue to use and develop the use of the bar model method and Numicon to aid understanding of concepts in number.

# Outdoor learning

## *Actions in 2016-17:*

- Raised the profile of Outdoor Learning and Forest School with staff and parents.
- PTA and 'Grow a £1 Scheme' money used to purchase more resources.
- Page created on website to inform parents about Forest School at PG.
- FS shelter was built and completed during January.
- Year groups 1, 2 and 4 received blocks of FS sessions with trained leader.
- 1 to 1 meetings with one teacher per year group to discuss what OL is currently taking place.
- G & T Forest School taster day held for all Bramhall Schools. Year groups 2 and 5 invited.
- Staff meeting / training – Keeping safe outdoors.
- Theme week to promote Outdoor Learning and Forest Schools.
- Created whole school overview of Forest Schools and Outdoor Learning.
- 1NS ran pilot scheme to record Forest School in an ongoing journal.

## *Future steps*

- Timetable Forest area so staff can book and use outside area easily.
- Pupil voice.
- Parent feedback.
- All children to participate in more Outdoor Learning activities with class teacher.
- Year 2, 3 and 4 to receive a timetabled block of FS sessions with FS leaders.
- Launch 'Grow a £1' Scheme to help fund more equipment.
- Attend annual FS conference as part of CPD.
- Research and address water drainage issues.
- Continue to work alongside staff to implement more OL opportunities.
- Pupils to record OL in Learning Journal.
- Team teaching

## Impact

- Staff are more confident to include cross curricular outdoor learning opportunities as part of their ongoing curriculum.
- All children used their food technology skills and learnt to how to cook safely outdoors, on an open campfire, under supervision of Forest School Leader.
- The large wooden shelter provides a covered area to be used all year.

## Key learning points

- Children love learning outdoors. It encourages an active healthy lifestyle, supports and promotes positive mental health as well as providing ongoing opportunities to develop their pupils growth mindset.
- Pupils are able to manage and take suitable risks outdoors by using new tools and trying out new activities.



# Science

## *Actions in 2016-17:*

- Scrutiny of planning and pupils' books against coverage of National Curriculum expectations (Programmes of Study)
- Strengths included making meaningful, real connections between many Science topics and other curriculum areas. There was evidence of working scientifically. Areas of development included ensuring that objectives from National Curriculum are well pitched and coverage is thorough including those for working scientifically.
- Following scrutiny of books, 1:1 sessions with class teachers (one per year group) and Science leader were held to co-develop planning and lesson resources. The planning and resources ensure clear coverage of the National Curriculum requirements, as highlighted in age related Programmes of Study, and ensure thoroughly embedded Working Scientifically skills across each topic with progression throughout the school.

## *Future steps*

- Review the impact of the new Science scheme through staff discussion and pupil work scrutiny.
- Raise the profile of scientific learning in the school environment, with more displays showing aspects of children Working Scientifically along with topic content.

## Impact

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- Teachers are clear on National Curriculum requirements in Science for their year group.
- High quality planning and resources are accessible for all colleagues to teach accurate and effective lessons from.
- Scientific Thinking is embedded across all Programmes of Study and is progressive in terms of skill requirement across the whole school.



## Key learning points

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- A Scheme of Work, co-constructed by teachers and subject leader, with lesson resources, ensures manageable planning, resourcing and delivery of full coverage of the national curriculum.