Science 4 families

science4families offers primary teachers and families activity ideas for how to learn science together, in engaging, fun and inspirational way.

Exploring ways to work together this provides you with tried and tested experiences to enhance parent/carer engagement and build science capital in your community.

The science4families resources were developed by the University of Manchester's Science & Engineering Education Research and Innovation Hub (SEERIH) working with a cluster of schools. This project was funded by the Primary Science Teaching Trust, working in partnership with SEERIH.

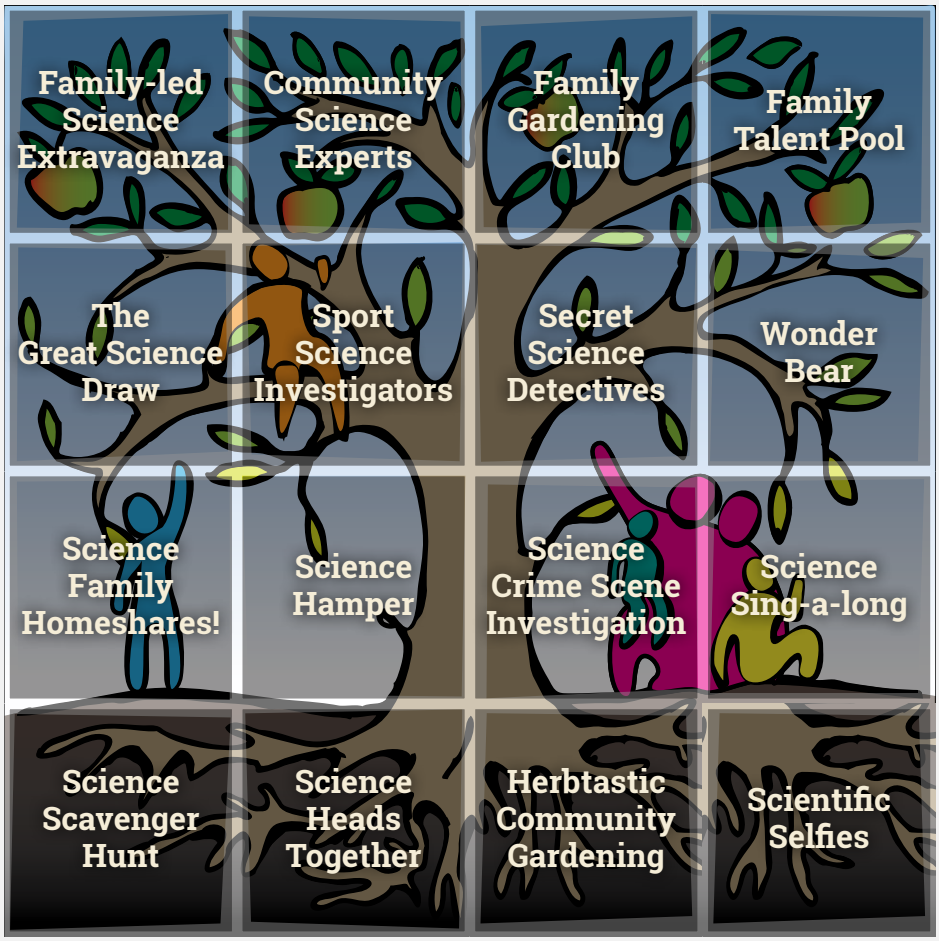
The activities are grouped into three categories:

Taking Root
where families join in with an activity

Growing Tall
where families are involved in the preparation or delivery

Reaching High
where families are involved in designing, planning and delivery

Click on the boxes below to see the activities.



Family-led Science Extravaganza

Reaching High
(co-creating activities with families)

Families and school learning together to deepen their understanding of particular topics that interest them. A science after-school extravaganza (fair) to showcase their learning to other families!

Age suitability: 7-11 years

Effort required:
(1 = l ess work - 5 = more work)
Pre-activity: **2** | During activity: **2** | Post-activity: **2**

Learning outcomes

- To ask and explore scientific questions that they are curious about.
- To make observations and describe what they see.
- To identify and use findings that help them explain their observations and/or offer an answer to their question.

Cross-curricular links

- Social, Moral, Spiritual and Cultural – working together on a common goal.
- Design & Technology – planning, creating, testing, reflecting, reviewing, improving, re-testing.

How to run this activity in 6 easy steps

1 Recruit parents, siblings or family members who wish to support in the planning of a science extravaganza or fair.

2 Facilitate their event planning – identify the science topic and activity ideas (using the internet and other sources). One family to choose one activity that they will host.

3 Offer support to plan space, access to the internet, paper, resources, etc.

4 Invite the parents, siblings or family members to make a list of requirements and place any orders that are requested.

5 Create a basic timeline of what needs doing when and who is taking responsibility. Each activity will be run by a family.

6 Create publicity showcasing the questions that will be explored at the event. Target the other year groups to be invited (with their parents or families!). Children to design fliers and event information and to communicate the event in school.

Top tips

- Engage parents in other events before they plan this one – they will need a good idea of the types of activities they could do, so as not to feel overwhelmed
- Focus on working scientifically – investigations where children are looking, trying and talking
- Order resources as far in advance, and show a parent or two how you do this, so they can do it next time
- Take a back seat – Remember it's the parents leading. Teachers are simply facilitating.
- Be aware of your budget! Less can be more! Use the resources that are easy to find as these will be the investigations that can be easily repeated at home.

Helpful links

www.hometrainingtools.com

www.easyscienceexperiments.co.uk

sciencebob.com/category/experiments

Developed by Liane Clegg and Kathy Thomason, St Anne's R C Primary School, Crumpsall, Manchester

Community Science Experts

Tap into the science expertise on your playground and invite parents and members of your school community to support the learning of curriculum science topics. Don't forget to widen your thinking to consider those careers which don't necessarily look to be traditional 'science' backgrounds or jobs!

Reaching High
(co-creating activities with families)

Age suitability: 3-11 years

Effort required:
(1 = l ess work - 5 = more work)
Pre-activity: **3** | During activity: **1** | Post-activity: **1**

Learning outcomes

- to develop an understanding of nature, processes and methods of science in the world around them.
- to be equipped to understand the uses and implications of science, today and for the future.

How to run this activity in 5 easy steps

1 As a staff, or teaching team, consider what careers might have specific knowledge that could link to your science topic. E.g. florist-flowers, cardio fitness-heart and body or musicians-sound.

2 Send a letter home asking for parents or family members with expertise (work or a hobby) in the topic areas to come and co-plan activities/ lines of enquiry for the children to do in school. Together outline the activity and resources.

3 Set a date to run the session together with the expert. Use both your skillsets to draw out the scientific knowledge that underpins the activity as well as the curriculum learning around it.

4 Offer time for the family expert to spend additional time at lunch or playtime with the pupils to further extend conversation about careers, and with the staff, to talk more about links to their curricula.

5 Review the session with the parent using 'Two Stars and a Wish' with a view to making it an annual or regular commitment.

Top tips

- Dedicate time to liaise with the parent – this will need to work around your and their work schedules.
- Be clear about each other's role and estimated time commitment.
- Be aware of the confidence level of the parent and offer support if necessary. They may be terrified of talking to all those children!
- Be flexible and encourage them to be too – it's about you both teaching at the same time, supporting each other, rather than the parent going solo.

Developed by Bradshaw Hall Primary School – Louise Bousfield and Matt Willis
Norris Bank Primary School – Michelle Chorlton.

Family Gardening Club

Reaching High
(co-creating activities with families)

Develop children's interest and curiosity in growing! Together with families, and supported by teachers, plant a variety of flowers, herbs and vegetables. Herbs and vegetables can be used at the healthy tuck shop or sold to the community.

Age suitability: 5-11 years

Effort required:
(1 = l ess work - 5 = more work)
Pre-activity: **2** | During activity: **4** | Post-activity: **2**

Learning outcomes

- To collaborate over time to create and maintain a school garden area.
- To research, learn and share knowledge and science behind growing.
- To make systematic and careful observations and where appropriate, taking accurate measurements, over time.
- To identify differences, similarities or changes related to simple scientific ideas and processes.

Cross-curricular links

- DT – Design. Make. Evaluate. Cooking and nutrition.
- Literacy – non fictional writing
- Art – observational drawing.

How to run this activity in 6 easy steps

1 Decide if the garden will be the focus of a specific year group or range of children.

2 Inform families and the children about the club. This could come from children writing their own persuasive letters, fliers or posters.

3 Create a plan of the garden area as you see it in the first stages – what will be grown? where and when? You need a good idea yourself before involving others as you will need to lead before others have confidence to follow.

4 Make a list of necessary equipment and timescales/milestones to be hit in order to get this project off the ground. Give yourself a year in total to plan over.

5 Once volunteers have been recruited, share the plans with them. Take on board different viewpoints and capitalise on any help offered.

6 Involve a small number of parents/families in planting the initial garden.

Top tips

- It helps to find a few family members with a good a gardening background and with time on their hands!
- Senior leaders need to be on board with this, as well as the school caretaker, as you will need resources and space.
- Cost up and have a clear plan before you start, but at the same time, don't let too much detail halt progress.
- If not enough family members get involved, invite others and encourage.
- Be clear on the commitment you're asking of the people recruited, they should recognise this is a year-long project at minimum.

Helpful links

Royal Horticultural Society – Grow Your Own

Developed by Crossacres Primary School, Wythenshawe

Family Talent Pool

Reaching High
(co-creating activities with families)

Find out about the skills of parents and families by sending home a science survey asking about jobs or hobbies. Seek to identify those that are science linked in different ways.

Age suitability: 3-11 years

Effort required:
(1 = l ess work - 5 = more work)
Pre-activity: **2** | During activity: **3** | Post-activity: **4**

Learning outcomes

- To learn about science in the world around us.
- To explore, describe and communicate science in a variety of ways.
- To develop the use of scientific vocabulary..

Cross-curricular links

- Literacy
- Citizenship

How to run this activity in 5 easy steps

1 Create a survey for parents and the wider community asking if they have a hobby or job which involves Science (aim to distribute in the Summer term in preparation for a new academic year).

2 Ask parents, if they would be willing to help out, talk about their job or hobby or work alongside their children's teacher to carry out an activity in school.

3 Collate this information so that you can identify opportunities where parent's interests can link to science topics being taught across the school. e.g. Florists – Plants, Fire fighter – materials, Engineer – DT etc).

4 Arrange an open meeting with parents to informally discuss how their skills and knowleddge could support children to understand how what they're learning in school fits into the world around them. Explore opportunities they are willing to support and ask them to sign up.

5 Be clear on the time commitment and when in the year you may need them for different levels of engagement.

Top tips

- Use parents who have done it before to help new parents overcome any concerns.
- Set a date for returns of survey and promote within school, on the website and through text messaging service (if possible).

Developed by Louise Thompson, Vale View Primary School.

The Great Science Draw

Taking Root
(participating on activities with families)

Age suitability: 3-11 years

Effort required:
(1 = l ess work - 5 = more work)
Pre-activity: **1** | During activity: **1** | Post-activity: **1**

Children, parents, families, teachers and big bag of chalks! What more do you want to have a Great Science Draw on the playground!

Learning outcomes

- to communicate science learning in a range of ways to use scientifically vocabulary

How to run this activity in 5 easy steps

1 Choose a date (or two... in case the weather is against you) and let families know that they are invited to take part in a Great Science Draw on the school playground -

2 Organise as many packs of Big Chalks or packs of chalk as possible

3 Decide on a theme if you want one, e.g. Plants, Space, Animals etc.

4 Set the challenge for the families to draw anything that they know about the theme, however they wish, adding words if they want. Set a start and finish time.

5 At the finish time encourage families to walk around and see the chalk drawings from other children and families

Top tips

- If desirable have some light refreshments.

Sport Science Investigators

Families join in with their children to plan and undertake a science investigation linked to sports, for example: Do people with longer legs jump further? A family-meet up offers teachers and parents time to come up with ideas which they can share in to enjoy learning science through Sport. Involving the Physical Education teachers, or local sports team coaches/teams also extends the impact of this collaborative activity.

Growing Tall
(collaborating on activities with families)

Age suitability: 3-11 years

Effort required:
(1 = l ess work - 5 = more work)
Pre-activity: **2** | During activity: **1** | Post-activity: **2**

Learning outcomes

- to develop cross-curricular links between physical education and science.
- to use sports as a stimulus for a range of primary science investigations.
- to explore and strengthen understanding in the range of enquiry types.

Cross-curricular links

- P.E. – structure of the human body, heartrate, lung function, fitness.
- Literacy – writing a groundbreaking newspaper report of the results, explanation text of the results, poetry linked to movement, writing a persiassive advertisement/letter to encourage parents to attend.
- Maths – measuring length/time/speed/distance, bar charts.

How to run this activity in 5 easy steps

1 Engage parents/carers and staff within the school by inviting them into school for a short after-school meeting. Encouareg children to begin sharing their question ideas with their parents/ carers.

2 Invite family groups to choose and develop one of the ideas, by planning what they would do to investigate their question. Teachers facilitate this to encourage a strong scientific enquiry process e.g. the question, method, way of recording results,

3 Plan when the activity will take place – utilise a weekly science, P.E. lesson or after school twilight for this purpose, and use the school grounds in diverse ways.

4 Decide how they can encourage other parental involvement, e.g. organise information in newsletters, posters or invitations to specific groups.

5 Make a list of required resources. School should support as much as possible, but still allow the families to take charge of their resourcing and preparation.

Top tips

- Let the children take the lead in enagaging families.
- Step back and support the families with planning and resourcing their investigation, hosting and carrying it out only when they require it, give them ownership!
- Invite more parents in to watch the investigsation even if they haven't wished to take part in the planning.
- If the whole school is carrying out investigations on the same day, create a timetable for indoor/ outdoor space needed.
- Reward, encourage and reward again – stickers, certificates etc.

Developed by Kathy Thomason and Liane Clegg, St Anne's R C Primary School

Secret Science Detectives

Growing Tall
(collaborating on activities with families)

Age suitability: 3-11 years

Effort required:
(1 = l ess work - 5 = more work)
Pre-activity: **1** | During activity: **1** | Post-activity: **4**

Science is everywhere! Parents act as science detectives in their own workplace. Parents take and tweet pictures of themselves finding science at work.

Learning outcomes

- To make visible where science is in the world around us.
- To involve parents in sharing their perceptions of science.
- To extend children's awareness of how science is used in everyday life and work.

Cross-curricular links

- Lit – children choose a photo that surprises them and explains why (speaking & listening).

How to run this activity in 5 easy steps

A great kickstart activity for a science event – showing real life applications of science in a range of diverse workplaces – everyone can be involved!

1 Communicate with home to explain the 'Secret Science Detectives', e.g by letter or school website.

2 Offer an example – e.g. ask the head teacher to have done this activity, or the class teacher.

3 Give instructions and examples of how and what to Tweet if using Twitter. Otherwise establish how photos will be shared.

4 Set a Secret Science Detective 'Tweeting day' and use a specific hashtag e.g. #secretsci that all parents should use along with your school Twitter handle (e.g. @school).

5 On the designated day, run an afternoon assembly and showcase the tweets that have been shared so the children can see photos that have arrived.

Top tips

- Extend the task: encourage staff to discuss how science is being used in the different photos – sort and group them.
- Where children are particularly interested in a photo, family members could be invited into relevant classes to discuss their jobs in greater detail.
- Some family members will be hesitant to share photos of themselves, so sharing examples with and without people in the photo could help.
- Set clear deadlines.

Developed by Sarah Dakin, Vernon Park Primary School

Wonder Bear

Growing Tall
(collaborating on activities with families)

Wonder Bear is a travelling teddy bear who goes home with children to ask questions about the world around us. Children write wonderings in a book, which is shared with the class.

Age suitability: 3-7 years

Effort required:
(1 = l ess work - 5 = more work)
Pre-activity: **2** | During activity: **4** | Post-activity: **1**

Learning outcomes

- To stimulate time for wondering
- To encourage children to ask questions about the world around them.
- To recognise that questions can be answered in different ways.

Cross-curricular links

Wonder Bear could be extended to taking an object (e.g. a book, artefact, picture, piece of equipment) home with the child to stimulate their wonderings. The object that Wonder Bear wonders about could be linked to any topic, e.g. a photo of place, flag, calculator, historical object, paint brush, sports equipment etc.

How to run this activity in 5 easy steps

1 (Optional pre-activity) Use the Wonder Bingo activity as homework to encourage and explain the importance of questioning to parents. See example Wonder Bingo sheet.

2 Prepare Wonder Bear bags, which include could be a school reading bag with a small teddy bear (Wonder Bear), his wondering object, a note book to record ideas in, and anything else that might be useful for children and parents e.g. pens, question stem cards, guidance note for parents.

3 Have an example within the note book to offer to show children how to record their wonderings, and explain this to the children in class. (e.g. using a spider diagram or drawing with questions around – written by child or parent).

4 Design a rota for sending the Wonder Bear bag home and make that visible to parents at the school door/gate.

? Wonder Bingo ?

For your homework this week we would like you to play Wonder Bingo. To be a great scientist you have to be good at asking questions. This helps you decide on what you want to investigate.

To play Wonder Bingo ask a question about something around you in each of the situations below. Every time you ask a question, you can cross the square off the board. How many questions can you ask?

Who?	What?	When?	Where?	Why?
	Can?	Would?	Should?	
On the way to school	Eating your dinner	Wonder Bear	Out at the shops	On the sofa
With your friends	In your bedroom	In the playground	Wonder Bear	Playing with your toys
Wonder Bear	In the car	On the pavement	Eating your breakfast	In the kitchen
In bed	In the bath	With a friend	In the garden	Wonder Bear

Wonder Bear always loves to ask questions. Do you?

5 Allow up to 3 nights for the bag to be returned, • before passing to other children and later refilling the bag with a new wondering object at a point you feel appropriate.

Teachers: When Wonder bear returns to school, at a key point it's important to share the questions asked about the wondering object with the children. This will add value to their activity at home.

If desirable: different investigation types could be displayed in the classroom to refer to when discussing how we could find answers to some of the questions returned.

Give opportunities for other children to ask questions about the object. To involve families further, family members could be invited into class to share their ideas when they return Wonder Bear.

Wonder Bear

Top tips

- Remember to replace the object regularly – after every 5 or so children.
- It is advisable to discuss the activity with the first few families who take Wonder Bear home as their additions to the notebook will guide future families
- Set deadlines for the bear's return
- Encourage families to record the questions together. Young children can take part and parents record questions for them.
- Science Wondering objects could be: feathers, leafs, Lego brick, magnifying glass, a newton meter, a pipette etc. Children could be involved in selecting objects.
- Send more than one bear home at a time
- In our school we had t-shirts made for your Wonder Bear to make him special and to make sure that children and parents can recognise him easily when he goes home. (Having the school name on the back also helped our bear not to go missing!)

Helpful links

Book: It's not fair or is it?

Developed by Sarah Dakin, Vernon Park Primary School

Science Family Homeshares!

Taking Root
(participating on activities with families)

Make great use of a science magazine, e.g. 'Whizz Pop Bang', with children and their parents who might not normally see them to complete a fun and engaging science activity at home.

Age suitability: 5-11 years

Effort required:
(1 = l ess work - 5 = more work)
Pre-activity: **4** | During activity: **2** | Post-activity: **2**

Learning outcomes

- To explore, describe and communicate science in a variety of ways
- To develop the use of scientific vocabulary.

Cross-curricular links

- Literacy – reading
- Maths
- Geography
- History

How to run this activity in 5 easy steps

A child is chosen each week to take home the 'Science Family Share Folder' (reading folders are fine). This includes the magazine or science book, a letter for parents explaining what to do and a book to record ideas and investigations into (using diagrams, photos, jottings and writing). Homework is celebrated weekly in class and half termly in a celebration assembly.

1 Decide on the magazine or selection of books to use and order your copies for school.

2 Give staff an explanation about the activity and what you need them to do. This could be run as a whole school initiative if desired.

3 Trial the approach with children from one class and then launch in a school assembly. Invite parents to the assembly.

4 Organise the folders and organise for the magazines to be changed half-termly.

5 Plan for celebration assemblies with certificates, if desired, for the parents and children who have taken part.

Top tips

Ask Teaching Assistants, or parent helper groups to take on the organising of the folders for each class.

Helpful links

www.whizzpopbang.com/schools

Developed by St Augustine's CE Primary School, Sarah Nuttall & Laurence Gibaut

Science Hamper

Taking Root
(participating on activities with families)

Age suitability: 3-7 years

Effort required:
(1 = l ess work - 5 = more work)
Pre-activity: **2** | During activity: **1** | Post-activity: **1**

A 'Science Hamper' sent home full of simple items to inspire families to ask questions and realise that science is all around them.

Learning outcomes

- to explore and wonder
- to ask questions
- to make predictions

Cross-curricular links

- Speaking & Listening

How to run this activity in 5 easy steps

1 Create a simple hamper full of household items that can be sent home with a child to inspire science e.g. nappies, straws, cans of coke, elastic bands etc.

2 Provide a short briefing note for parents, encouraging them to involve their children in exploring the items in the hamper – look, touch, smell, listen etc.

3 Encourage them to talk with their children and to concentrate on listening to the children's ideas without any 'rights or wrongs'.

4 Add in a set of question cards or prompt questions to guide the discussion. (What? Where? How? Can? Should? Could? Etc.).

5 Provide differet avenues for families to share the science they've done at home with school and the wider communities e.g. bringing in photos, email, twitter, scrapbook.

Top tips

- Recruit junior children as School Science Ambassadors/Prefects and ask them to take ownership of the creation of hampers.
- Encourage them to promote the hampers and talk to the different year groups, and their parents (at parents evening perhaps) about the ahmpers.
- Encoaurge the extended families – grandparents, siblings, to get involved.
- Have a working wall display that the science families can self-publish their science on to celebrate it.

Helpful links

www.science-sparks.com

Developed by Kathy Thomason and Liane Clegg, St Anne's R C Primary School

Science Crime Scene Investigation

Taking Root
(participating on activities with families)

Age suitability: 4-11 years

Effort required:
(1 = l ess work - 5 = more work)
Pre-activity: **5** | During activity: **3** | Post-activity: **2**

A fun, engaging evening of science enquiry for the whole family. Solve a crime by working like a scientist and eliminating suspects.

Learning outcomes

- To investigate using comparative testing, recognising and controlling variables.
- To observe, looking for patterns.
- To make simple electrical circuits.
- To evaluate and explain results and make conclusions.

How to run this activity in 5 easy steps

1 Dedicate staff meeting time to explore 4 science investigations associated with the 'Learning Science Together' resource from the Primary Science Teaching Trust. This is a Crime Scene Investigation event. Allow teachers time to talk about and become familiar with the activities and give them an awareness of possible resourcing issues.

2 Organise for sign up to the event and plan refreshments for the end of the event – this can help guarantee a great attendance!

3 Prepare any resources than you think you'll need, with the help of parents, teaching assistants and older children if applicable.

4 Allocate one classroom to each science investigation and organise a plan for how the families will move around them during the event. Allocate 15-20 minutes for each activity in each room.

5 Encourage all staff and parents to adopt a questioning attitude to the night. The key is to promote talk and curiosity around the crime scene and 'who did it!?'

Top tips

- Introduce the event to all members of teaching staff. Note when it will take place, where possible using this instead of a staff meeting time.
- On the evening have 2 or 3 members of staff 'floating' on the corridors to direct families to the right place.
- Signify when the time is up to ensure everything runs on time. (Ring the school bell)
- Give a starting room and planned route through the activities.

Helpful links

PSTT – Learning Science Together

Developed by Louise Bousfield & Matt Willis, Bradshaw Hall Primary

Science Sing-a-long

Taking Root
(participating on activities with families)

Age suitability: 3-11 years

Effort required:
(1 = l ess work - 5 = more work)
Pre-activity: **2** | During activity: **2** | Post-activity: **1**

Turn your school choir practice into a parents and families class Science Sing-a-long

Learning outcomes

- To use scientific language to communicate their ideas to a range of audiences in a variety of ways.
- To explore science concepts through song.

Cross-curricular links

- To write poems, lyrics and limericks about science topics.

How to run this activity in 5 easy steps

1 Speak with your school choir leader or music service to explain the vision.

2 Together select a selection of songs (linked to your science topic that term or varied) that the choir can learn prior to the Science Sing-a-long. This will mean that there is a set of children already familiar with the songs.

3 In your lessons prepare your class by sharing the lyrics. Task them to talk about the scientific language and pick up on any preconceptions that you feel may need addressing.

4 Invite parents or families to the choir practice and together with the choir leader, enjoy teaching the songs to the new audience.

5 Film or record the performance at the end of the evening. To take this further why not showcase the songs at the School Summer Fair, Christmas concert or school assembly.

Top tips

- Choose science songs with a familiar tune – e.g. setting science words to 'She'll be coming round the mountain'.
- Take it one step at a time – do what's feasible... but be inspirational!
- Use your music service support and link with your local music hub.

Helpful links

Singing Science by Helen MacGregor and Stephen Chadwick (ISBN: 978-1-4081-6559-1) is a really useful book that provides lyrics and CD accompaniment.

Science Scavenger Hunt

Invite the children and their families to join in an after-school science hunt. Children explore with their friends and family and take part in a science based exploration of the school to learn about plants, habitats, wildlife as well as develop scientific observational skills. (Can be adapted for other areas of science curriculum depending on the grounds and needs of the school eg: material hunt, minibeast hunt, light etc.)

Taking Root
(participating on activities with families)

Age suitability: 3-11 years

Effort required:
(1 = l ess work - 5 = more work)
Pre-activity: **3** | During activity: **3** | Post-activity: **1**

Learning outcomes

- To make close observations
- To group, classify, identify and name a variety of living things in their local and wider environment.
- To engage children with families in learning Biology

How to run this activity in 5 easy steps

1 Choose a date/time and prepare letter to invite the children and their families to attend the event and to know numbers if light refreshments are to be offered (always a good idea!).

2 Write a list of things the family groups could find whilst on their scavenger hunt around the school, e.g.: 'Find something rough, something surprising, something that once was alive etc.' The intention is that they will bring this thing back, so offering a plastic transparent bag (or larger depending on the focus of the activity) per family is helpful.

3 Identify the areas the families can or can't go, include a map if appropriate and ensure all safeguarding issues are handled carefully.

4 An effective activity for this activity is a school scavenger hunt based on colour matching. For a colour scavenge, prepare strips of paint sample strips (available from a local DIY store) alongside sticky back plastic to collect their samples. Can choose different shades of green for a habitat focus but the colour choice also adaptable if wanting the children to focus on something else in their school grounds. Add this to the transparent bag and scavenger questions ready to give to the children.

5 On the day, gather parents and children together and direct to toilets/communicate fire alarm procedures etc. before giving out scavenger bags and explaining the activity. After 30 minutes to an hour of scavenging, most will be ready for food and to do an informal show and tell about what they have discovered with their families.

Top tips

- If offering refreshments, prepare more food than you think they will need.
- Check the weather and be prepared to delay/ make parents aware they will need a coat if it can't be adapted for indoors
- Have a member of staff or older pupil guide parents as to where they could look/ or questions to ask. They benefit from role models when the experience is new to them.
- Provide question prompts for parents / guide parents before the activity in how they might support their children in modelling scientific approaches to learning.

Helpful links

Woodlandtrust – Nature Detectives

Developed by Matt Willis and Louise Bousfield, Bradshaw Hall Primary School

Science Heads Together

Taking Root
(participating on activities with families)

Parents and family members are the untapped resource with ideas and skills that don't always get capitalised upon. Create a Science parent working party to generate ideas with you to plan and resource the next science event in your school.

Age suitability: 3-11 years

Effort required:
(1 = l ess work - 5 = more work)
Pre-activity: **3** | During activity: **4** | Post-activity: **2**

Learning outcomes

- To capitalise on the expertise and enthusiasm of parents and families.
- To develop a collaborative working party of parents/family members and teachers.
- To enhance relationships with parents and families around curriculum learning.
- To learn from and with parents/families.

Cross-curricular links

This model could be used in any area of the curriculum to improve parental engagement eg: reading, history, RE, maths etc.

How to run this activity in 5 easy steps

1 Target invitations towards parents, family members, parent governors and other teaching staff that you think would be interested in the first stages. Ask them to support you in developing an idea around a science-focused, suitable for children at all levels of the school.

2 Decide on a rough theme to help guide your working party to an initial goal or activity, e.g. a science BBQ or sports science afterschool event). Have some ideas for where to source example activities and provide pictures to stimulate ideas.

3 Lead an initial meeting by explaining the purpose, welcoming all ideas and consider encourage people to see whether there are particular careers/expertise/ contacts can be linked to the science focus of your event.

4 Collate ideas together, and ask teachers to assist in linking activities to National Curriculum learning objectives for working scientifically.

5 Allow some thinking time and then meet again, inviting the group to pair up (teachers with parents/family members) around an activity that they will take ownership of – in preparation, resourcing etc.

Utimately, run a short event using this collaborative approach, before the working party is invited to decide for themselves how to move forward to develop science together in school.

Top tips

- Garner support from Senior Leadership to promote engagement with the whole school community. Encouarge it to be highlighted on the school website, setting dates in advance for meetings etc.
- Meet after school or as a breakfast meeting. Provide a good range of refreshments for anyone attending the meeting!
- You may require running the meeting 2 or 3 times before the working party establishes itself.
- Encouage a parent or two to become 'leads' or 'co-chair' of the group with you.
- Approach parents who may not be aware of the opportunity and make them aware of the opportunity in conversation as opposed to formal letters.

Developed by Matt Willis and Louise Bousfield, Bradshaw Hall Primary School

Herbtastic Community Gardening

Taking Root
(participating on activities with families)

Introduce a herb garden which is accessible to the wider school community and encourage them to grow and pick a variety of herbs to take home and use in tasty recipes!

Age suitability: 3-11 years

Effort required:
(1 = l ess work - 5 = more work)
Pre-activity: **1** | During activity: **1** | Post-activity: **1**

Learning outcomes

- To engage families in childrens learning in tangible ways
- To identify and describe the structure of common plants
- To find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.
- To describe the importance of eating the right amount of different types of foods to stay healthy.

Cross-curricular links

- Literacy – recipe writing (non fiction writing), creative writing
- Numeracy – measurement
- SMSC – Wider community links/development.

How to run this activity in 5 easy steps

Launch the idea of becoming a Herbtastic Community Garden school to the children and parents in a way that suits you. Clarify what this means and when it will happen.

1 Ask the children to do some research on different garden herbs and to offer suggestions as to what should go on the 'shopping/wish list'. Develop a display wall that they can splat their ideas and research onto. Value all contributions.

2 Set children or families a Herbtastic logo competition to brand their new venture.

3 Purchase a variety of different herbs or seeds to grow a range of garden herbs, along with relevant equipment/soil (or request that these are donated).

4 Before school, at lunchtimes or afterschool encourage children to support you, and encourage parents to join in, in planting and caring for the herbs.

5 Encourage children and their families to send in ideas for recipes that they could or have done. Display these.

Top tips

- Buy already grown herbs to kick start the project and save yourself time, however plant some too to show growth from seed.
- Encourage children to take charge of watering, trimming or harvest herbs frequently to prevent from wilting. It's their garden not yours!
- Plant the herbs and label them with tags for identification.
- Use Herbtastic Garden monitors – weekly rotation to water and maintain herbs to keep them healthy. Allocate different children to maintain and research the herbs.
- Get children to brainstorm ideas of how they could promote the garden to the local community (designing posters, leaflets, tweets, texts).
- Encouarge parents to visit the garden before and after school and pick herbs to use in cooking at home.

Helpful links

Lets Go Gardening – Growing Herbs

Developed by Louise Thompson, Vale View Primary School, Stockport

Scientific Selfies

Taking Root
(participating on activities with families)

Age suitability: 3-11 years

Effort required:
(1 = l ess work - 5 = more work)
Pre-activity: **2** | During activity: **1** | Post-activity: **2**

The writing is on the tin – children and parents take a selfie associated with where they find science naturally occurring in their home and local community.

Learning outcomes

- To identify simple scientific ideas and processes in familiar environments.
- To be curious about the world around them.

How to run this activity in 5 easy steps

1 Create a letter explaining the 'Science Selfie' activity to parents and families. If desirable, consider this as a competition opportunity (not essential).

2 Promote and model the Science Selfie idea, showing your selfies in assembly, class time or on a display board.

3 Set a timescale for the selfies to be taken and sent in.

4 Encourage all submissions to Tweet the photo and print it with the caption: 'This is science because…'

5 Add selfies to a large display that is visible in public areas of the school.

Top tips

- Having the selfies printed will make creating a display a lot easier for you.
- Create a particular hashtag e.g. #sciselfieNB17 as you can find these more easily.
- Running it as a competition helps stimulate interest, especially if there is a prize.

Developed by Vale View Primary School, Louise Thompson and Norris Bank Primary School, Michelle Chorlton