

Applicant: [REDACTED]

Funding Sought: **£2,958.50**

PG/S2/24/1011

How biodiverse are our school grounds and how can we improve this?

PG/S2/24/1011

How biodiverse are our school grounds and how can we improve this?

Section 1 - Contact Details

PRIMARY APPLICANT DETAILS

Title Mrs
Name [REDACTED]
Surname [REDACTED]

COLLABORATOR DETAILS

Role	STEM partner	Role	Head teacher or Principal
Title	Miss	Title	Mrs
Name	[REDACTED]	Name	[REDACTED]
Surname	[REDACTED]	Surname	[REDACTED]

School contact details:

Please enter your School Name

[REDACTED]

Please enter your school address

[REDACTED]

Please enter your school postcode

[REDACTED]

Please choose your role at school from the list below

Other

If you selected other in the previous question, please provide further details on your role here

Class teacher and Science Coordinator

Please select your school level from the list below:

Primary

In Stage 2 we will require the name of a second staff member who can support you with this project and take over as lead if required. Please tick to confirm this is being considered

Checked

Please select the type of school from the list below:

Non fee paying

Is your school part of a multi-academy trust?

No

Will your project involve students with special educational needs and disabilities (SEND)?

Yes

Is this a project specifically designed for students with SEND or is this a mainstream project accessible to students with SEND?

A mainstream project that is accessible to students with SEND

How did you hear about the Partnership Grants scheme?

Via another education organisation

Please provide the name of the education organisation

Seerih - Manchester University

Has your school applied for a partnership grant before?

Previous recipients of partnership grants may apply for further funding, as long as the new application is made one year or more after the previous application.

However, you must make sure that your new project is not a simple extension of your previous one.

No

Section 2 - STEM Partner Details

Please include the full name of your STEM partner here

██████████

Please include the job title of your STEM partner here

Senior Urban Designer

STEM partner contact details:

Please enter the STEM partner's organisation name

SLR Consulting Ltd.

Please select the type of organisation from the list below:

Industry/Commerce

Please provide the highest level of education held by your STEM partner

Masters level

Why is this individual a suitable partner for the project?

██████████ specialises in Urban Design, designing the spaces around us so they work better for people and the environment. Her work focuses on town centre regeneration and creating new places for people to live, work and play in.

██████████ will be excellent at supporting the children to plan for our changes and explore with them things

which we will need to consider, highlighting and giving purpose to the enquiries/investigations they will be completing.

Will your project involve working with any other STEM partners?

No

Has the STEM partner applied for a Partnership Grant before?

No

Has the STEM partner been previously funded by the Royal Society through other grant opportunities

No

Section 3 - Project Overview

Project question

How biodiverse are our school grounds and how can we improve this?

Please select the main strand(s) that your project falls under from the list below (please choose a maximum of 3):

Biology

Please provide a short descriptive summary of your project, clearly explaining what the students will be investigating in this project (max 150 words).

Following on from our Building Better Worlds project looking at the variety of flora and fauna seen on 3 different floor surfaces, the children will be further investigating the biodiversity of flora and fauna around our school. Children in EYFS, Year 1, Year 2, Year 3/4 and Year 6 will carry out enquiries to see if changes we will make to improve existing habitats and to add new ones, will have an impact on the biodiversity around our school site. The children will use various working scientifically skills to carry out surveys looking at invertebrates, birds and plants, drawing conclusions about their findings and examining the impact of humans on the natural world, while trying to make that impact a more positive one.

Section 4 - Participants

Will there be a selection process to choose the students taking part in the project?

No

Please select your school region from the list below.

England

Please select which student year(s) will participate in your project from the list below:

Reception

Year 1

Year 2

Year 3

Year 4

Year 6

What is the total number of students at your school?

345

How many students will be impacted by the project?

345

How many of the students impacted by the project will be taking part in the core investigative work and regularly interacting with the STEM partner?

90

Please provide the name for a second member of staff from your school who will support you with the project and can take over the running of the project if under any circumstances you are no longer able to act as the lead on the project

[REDACTED]

Please provide the job title for this second member of staff

Deputy Headteacher

Will any other schools be involved?

Yes

Please provide some detail about how the other schools will be involved and when in the project.

[REDACTED] High School want to use the pond area to carry out their own science enquiry around pond snails. They will be investigating how their populations change over time and want to monitor plant biodiversity, other invertebrates and try to monitor water quality too. They are not a formal part of the project, but will be impacted by it.

Section 5 - Planning

Please select the submission deadline you are aiming for?

End of April 24

Please select the term when you plan to start your project.

Autumn term (October 24 onwards)

Please state how many terms you expect your project to run for.

3.0

If you will be working with additional STEM partners alongside your lead STEM partner, please provide some simple detail about who the additional STEM partners are.

Our lead STEM partner will be joined by one or two colleagues from SLR Consulting Ltd., specialising in Landscape Architecture and Urban Design. These colleagues will be able to advise on best plant species to improve biodiversity, and will help students design up the garden areas.

In the table below please provide details about your project plan. Please note, each project should have several investigations which all link together and help the students answer the overall project title.

Project element description	Please provide some detail about what the students will be doing	Please detail what equipment will be needed for this element. If no equipment will be needed please state N/A.	Please clearly explain how the STEM partner(s) will be involved with this element and how they will engage with students. If the STEM partner(s) will not be involved please state N/A.
Please select the project element Investigation	<p>Summer 2024 (Before the project officially starts)</p> <p>Y4 How does the type of ground surface affect the biodiversity in our school? (Comparative testing) Conducted in Y1 of the project</p> <p>In groups, Y4 children investigate flora and fauna species in 3 separate areas in the school grounds and note species. Compare biodiversity to a local park.</p> <p>Y2 What invertebrates can we find in different micro habitats? (Identifying, classifying and grouping).</p> <p>Y2 children investigate current microhabitats and record invertebrates seen.</p>	<p>Quadrats – home made. Bug collection boxes – a limited supply, magnifying glasses – a limited amount. Binoculars – 1 pair.</p>	<p>Before the project start so no STEM partner involvement expected but some preparation work with our Stem partner will take place to establish what the school grounds are like and identify possible areas for planting once the project does start.</p>

Please select the project element	September/October 2024 Whole school assembly to launch the project. Introduce project title What is biodiversity like at our school and how can we improve it?	N/A	Stem partner to be invited in to share in this assembly and explain their role.
Project kick off meeting	Introduce Enquiry questions to be investigated by all year groups. (Timeline of when these will be conducted is outlined below)		(Part of a 1 day visit)
	Children now in Y5 feedback what they found about general biodiversity.		
Please select the project element	September/October Introduce STEM partner - explain to KS2 children what their job role is and how science is linked to this.	N/A	STEM partner to support and explain their role in planning to improve biodiversity in built/new environments.
Careers talk from your STEM Partner			(part of the 1 day visit)

Please select the project element

Investigation

September/October
Y3/4 children go out and survey the areas with plants in them to check the biodiversity in these areas e.g. the school field, the school nature area, by the new school pond.(Not yet fully established).

Looking for the number and diversity of types of flora and fauna.

Stem partner to help Y3/4 children (80 children -mixed age classes) to plan how they can improve the areas in our school grounds, what plants, bird feeders and microhabitat/varied habitat areas to add and where best to add them. Share this information with the Y5/6 Stem club.

Quadrats – home made (carboard/rulers).
Bug collection boxes – a limited supply,
magnifying glasses – a limited amount.
Binoculars – 1 pair.

Part of the first 1 day visit

Work with Y3/Y4 and Y5/6 Stem club children and lead teacher to plan how to improve biodiversity in our school grounds.

Identify places to improve/develop types of plantings, what types of plants, and where to put them. Help identify sites for rewilding/creation of wildflower meadow areas etc or any other suggested ideas.

Introduce/improve sites for bug hotels/bird feeders/bird boxes etc.

Workshop session(s) with the children to talk about how to best design the space and what types of plants could be planted to enhance biodiversity. Stem partner to create some activity sheets, and a presentation with ideas of what the spaces could look like, then would like the children to have a go at designing the spaces. Partner would then like to take pictures of the children's designs away and create a plan for the planting, recommended plants and a rough plan for maintenance which they would share school after the workshops.

Please select the project element	Ongoing – all year Y3/4, plus Y5/6 Stem Club and school council children (Y3-6)	Pond sweeper net Pond gloves Pond nets. Identification guides Gardening gloves Gardening tools adult and children's tools. Water butt.	Follow advice and plans developed with the children on the Sep/Oct 1 day visit and by the stem partner (plus landscape designers) Keep in touch with Stem partner over the year.
Other	Children help to maintain the project on a weekly basis as needed throughout the year, weeding, and general maintenance on the pond. Watering as needed.		
	Making observations about any animals they discover.		

Please select the project element	September Year 1 How does the number of birds we see vary across the school year? (observing over time) Children spend time observing the school grounds, learning the name of some common bird species. Identify birds seen and note numbers. Recorded in class floorbooks.	1 pair of binoculars. Bird identification guides – RSPB.	N/A
Investigation			

Please select the project element

Other

October/Nov (after half term)
Y3/4 and Y5/6 stem club
Prepare new areas for planting and do some early planting - e.g. adding plants to pond area, surrounding nature garden area and other key sites in school as identified through the project.
Purchase suitable plants and plant them in appropriate locations.
Follow advice from Stem partner. This could be e.g. Around and in the new pond.
Fruit trees in area by the school canteen.
Wildflower/rewilded areas in Y2 play area.

(may need to postpone some planting until Spring – March but time will be put aside for this in the school medium term science plans for Y3/4).

Plants
Fruit trees
Pond plants
Follow advice from Stem link partner.
Aquatic baskets, hessian
Aquatic soil, gravel

Water butt
Buckets
Gardening gloves
Gardening tools adult and children's tools.
Outdoor shed to keep gardening supplies in.
Raised bed frame

Second 1 day visit. STEM partner to visit to help with getting the spaces ready for planting and doing some early planting with the children - implementing the plans devised after the first day visit.

	<p>October/Nov (after half term) Year 1 How does the number of birds we see vary across the school year? (observing over time)</p>		
<p>Please select the project element Investigation</p>	<p>Children spend time observing the school grounds, revising the names of some common bird species and any new ones needed. Identify birds seen and note numbers.</p> <p>Children put up bird feeders, bird boxes and add bird feed to encourage birds to come closer to aid in identification and counting. Record numbers in class floorbooks. Note any changes.</p>	<p>Set of binoculars Identification charts. Clipboards</p> <p>Bird feeders hanging, and on window type. Bird feeding station. Bird feed – (nut free) mealworms, sunflower hearts, Nyger seeds. Bird boxes</p>	<p>N/A</p>
	<p>This will be repeated half-termly</p>		

<p>Please select the project element Investigation</p>	<p>February/March Y3/4 Children revisit areas they have planted in October and survey these areas for diversity in plant species and sample the number of invertebrates.</p>	<p>Quadrats Plant identification guides. Invertebrate identification guides Teacher minibeast books.</p>	<p>Communicate with Stem partner about the findings so far. Discuss plantings and project. Zoom meeting to discuss updates.</p>
	<p>Does increasing plant diversity affect the number of invertebrate species in our school grounds? (Comparative testing)</p>	<p>Pond dipping equipment: white trays, small nets, larger nets, pond animals identification guides. Magnifying glasses Bug collecting equipment.</p>	
	<p>Children will use their quadrats in these areas and note the types of plant species and the amount of invertebrates. Check the biodiversity of the pond too.</p>		
	<p>Draw any conclusions and discuss what changes might still be needed. Contact the stem partner with their findings and seek advice as needed.</p>		

<p>Please select the project element Other</p>	<p>March Y5 If there is frogspawn, and/or tadpoles Y5 children will observe their life cycle in the pond over time.</p>	<p>Tank Tadpole food Pond dipping kit.</p>	<p>N/A</p>
	<p>Y5 children will use the pond area to look at life the life cycles of plants and hopefully amphibians – also bringing frogspawn into the classroom and comparing it to any that are living in the pond.</p>		

April/May
Children in Y3/4 and Y5/6
Stem club, plant
additional areas such as
Planting a wildflower
meadow/patch or a
herb garden patch.

**Please select the
project element**

Other

Use research from
secondary sources and
their findings to suggest
ideas in class.
Prepare the ground in a
couple of different places
and sow wildflower
seeds. The children will
also plant a range of
herbs / fruit trees as
suggested by the stem
partner and/or more
expert gardeners or
research from secondary
sources. Water and
monitor growth.

Gardening gloves
Gardening tools adult
and children's tools.
Wildflower seed
Raised bed
Compost
Rake
Soil sieve

STEM partner support to
aid with
planting/feedback or
advice and check in with
how the project is
progressing. Zoom
meeting.

Y3/4 (After Easter)
May/June
Does increasing plant diversity affect the number of invertebrate species in our school grounds? (Comparative testing)
Gather data again for this enquiry, revisiting areas they sampled previously and any new areas that have been planted.

Y3/4 children go out and survey the areas with plants in them to check the biodiversity in these areas e.g. the school field, the school nature area, by/in the new school pond. These should all now have a greater diversity of plants, looking for the number and diversity of types of flora and fauna. Compare to data collected the previous summer. What are the similarities/differences? Draw conclusions about their enquiry, overall success and has increasing the diversity affected the number of invertebrate species? Further possible investigation.
How does the biodiversity of our school compare with the local park?

Quadrats
Plant identification guides.
Invertebrate identification guides
Teacher minibeast books.
Pond dipping equipment: white trays, small nets, larger nets, pond animals identification guides.
Magnifying glasses
Bug collecting equipment.
Plant Snap App.

Present data and findings to the STEM partners at the school science fair.

Please select the project element

Investigation

<p>Please select the project element Investigation</p>	<p>May/June (after Easter) Y2 How does the type of microhabitat affect the types of animals found in it? (Identifying and classifying / pattern seeking.)</p> <p>Children will investigate different microhabitats around the school site. They will look at the conditions and flora of each site and investigate and collect samples of the animals found there, before drawing conclusions about what they found.</p>	<p>Bug collection boxes Pond animals identifications sheet. Common invertebrates identification sheet. Pupils. Minibeasts identification book for teachers. Clipboards</p>	<p>Share findings with Stem partner at the science fair.</p>
-------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------

<p>Please select the project element Investigation</p>	<p>April/May (After Easter) (EYFS) Reception and Nursery What are animals at our school like and how are they similar or different to animals elsewhere? (Identifying and classifying)</p> <p>All the children will look at minibeasts in the EYFS area. Nursery will look at tadpoles and butterflies and find out more about them. Reception will look at land animals and minibeasts around the school and farm animals further away.</p>	<p>Bug collection equipment Magnifying glasses Identification sheets.</p>	<p>N/A</p>
-------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------	------------

<p>Please select the project element</p> <p>Investigation</p>	<p>May June Y6 How can we classify the biodiversity in our school grounds?</p> <p>Y6 children will sample the range of flora and fauna in the school grounds and will produce plant classification keys for the younger children in school to use.</p>	<p>Bug collection boxes Pond animals identifications sheet. Common invertebrates identification sheet. Pupils. Minibeasts identification book for teachers. Clipboards Plant Snap App</p>	<p>Share with Stem partner at the science fair.</p>
<p>Please select the project element</p> <p>Investigation</p>	<p>June (after May half term) EYFS What are animals at our school like and how are they similar or different to animals elsewhere? (identifying, classifying and grouping and research from secondary sources).</p> <p>Nursery will look at wild animals from different countries. Reception will compare the animals in the school pond to other animals that live in the seas and oceans.</p>	<p>Pond dipping equipment. White trays. Nets Pond animals identification guides.</p>	<p>Share with Stem partner at the science fair.</p>
<p>Please select the project element</p> <p>Project presentation</p>	<p>GSSfS</p> <p>June [REDACTED] Science Fair</p> <p>Children from EYFS, Year 1, Year 2, Year 3/4 and Year 6 will present their findings and working scientifically work at the school science fair. The fair to be scheduled after the children have completed their enquiries.</p>	<p>No new equipment needed.</p>	<p>Stem visitor invited into school to share the results of the enquiries across school and discuss any next steps needed for the following year. 3rd day visit from Stem partner.</p>

Please detail how you will share the work carried out through your project and what legacy it will have.

This will increase children's science capital, science investigative skills and enthusiasm for science and nature. Project findings will be shared via Facebook, the school newsletter and through the school's yearly Great Science Share Science Fair, encouraging the development of Science Capital in our families and wider community.

The enquiries will be added to all medium/long term plans (written by the science co-ordinator) and the same enquiries will be re-run over a 2 year cycle in Y3/4. In year 2, the enquiry in Y3/4 will change to 'Which plants attract the most pollinators?' Further questions will be adapted/added as the site matures. Similar enquiries will be conducted each year in EYFS, Y1, Y2 and Y6 reusing the same equipment.

Children will continue to develop the school garden and have opportunities to grow a wider range of plants.

It is anticipated that links between [REDACTED] and [REDACTED] will continue.

Section 6 - Project costs

Are you applying for a £1,500 or £3,000 grant?

£3,000

Budget heading		2024 - 2025	Total
		2024 - 2025	
Project Item			
Freshwater Name Trail (WildID) by Richard Orton, Anne Bebbington, et al. ISBN: 9781851538393 x10	Cost	£40.00	£40.00
	Latest Cost	£40.00	£40.00
Garden Bugs and Beasties (WildID) Wall Chart – 26 Sept. 2014 by Rebecca Farley-Brown (Author), Chris Shields (Illustrator) x 10	Cost	£40.00	£40.00
	Latest Cost	£40.00	£40.00
Minibeasts: An Identification Guide by Peter Smithers, John Walters (Paperback) 4 copies for teachers to help with identification.	Cost	£28.00	£28.00
	Latest Cost	£28.00	£28.00
Invicta 040159 Bug Pots - 44 x 50mm - 2.5 x Magnification - x 50	Cost	£53.70	£53.70
	Latest Cost	£53.70	£53.70
Heavy-Duty Sampling Trays - pond dipping tray. X 6	Cost	£51.00	£51.00
	Latest Cost	£51.00	£51.00
Woodlands (WildID) Paperback – 31 Dec. 2021 by Rebekah Trehern (Author), Lizzie Harper (Illustrator), Chris Shields (Illustrator) x 4	Cost	£16.00	£16.00
	Latest Cost	£16.00	£16.00
Compact Binoculars with Carry Case x 10	Cost	£87.90	£87.90
	Latest Cost	£87.90	£87.90

Budget heading		2024 - 2025	Total
		2024 - 2025	
robin nest box x 2	Cost	£14.99	£14.99
	Latest Cost	£14.99	£14.99
bird box x2 for blue tits etc.	Cost	£17.90	£17.90
	Latest Cost	£17.90	£17.90
Garden Ting Sunflower Hearts Wild Bird Food Tub, 5 Litre	Cost	£9.99	£9.99
	Latest Cost	£9.99	£9.99
RSPB Wild Bird Window Feeder x 2	Cost	£24.58	£24.58
	Latest Cost	£24.58	£24.58
Premium Dried Mealworms, 5 Litre Tub	Cost	£12.99	£12.99
	Latest Cost	£12.99	£12.99
SQUAWK Niger Seed 5 litres	Cost	£14.99	£14.99
	Latest Cost	£14.99	£14.99
Hand Magnifier Acrylic Lenses 63mm x 20	Cost	£25.98	£25.98
	Latest Cost	£25.98	£25.98
Just Seed - Wild Flower (British) - Clay Soil	Cost	£12.75	£12.75
	Latest Cost	£12.75	£12.75
Large Pine & steel Rectangular Raised bed kit 0.96m ² x2	Cost	£52.00	£52.00
	Latest Cost	£52.00	£52.00
Verve Raised bed Plant container liner (L)116cm x2	Cost	£18.00	£18.00
	Latest Cost	£18.00	£18.00
plants/seeds - to be decided upon during the project and following enquiries with advice from STEM partner. E.g. herbs, fruit trees, native British plants, shrubs etc.	Cost	£300.00	£300.00
	Latest Cost	£300.00	£300.00
Plant snap app - for school ipads - lifetime licence for unlimited photos for plant identification	Cost	£59.99	£59.99
	Latest Cost	£59.99	£59.99
Heavy Duty Clipboards - Pack of 10 x 3	Cost	£58.35	£58.35
	Latest Cost	£58.35	£58.35
Metal Shed/store for storage of gardening equipment, base, pea	Cost	£418.00	£418.00

Budget heading		2024 - 2025	Total
		2024 - 2025	
gravel and padlock	Latest Cost	£418.00	£418.00
Gardeners Apprentice Smaller garden tool set - Digging spade Garden fork - Carbon Steel, Soil rake, Leaf rake, Hoe - Carbon Steel	Cost	£79.48	£79.48
	Latest Cost	£79.48	£79.48
gardening gloves x10 child size	Cost	£29.98	£29.98
	Latest Cost	£29.98	£29.98
227 Litre Harcostar Water Butt Kit	Cost	£54.99	£54.99
	Latest Cost	£54.99	£54.99
gardening gloves larger size x5	Cost	£10.00	£10.00
	Latest Cost	£10.00	£10.00
Lead teacher classroom release time to support other year groups.	Cost	£300.00	£300.00
	Latest Cost	£300.00	£300.00
Stem partner travel expenses	Cost	£200.00	£200.00
	Latest Cost	£200.00	£200.00
SEERIH Support including • 2 Meet the scientists webinars • 3 CPD sessions	Cost	£750.00	£750.00
	Latest Cost	£750.00	£750.00
Adult size gardening tools fork, spade, rake etc	Cost	£41.95	£41.95
	Latest Cost	£41.95	£41.95
Wheelbarrow	Cost	£39.99	£39.99
	Latest Cost	£39.99	£39.99
sweep nets x 4	Cost	£45.00	£45.00
	Latest Cost	£45.00	£45.00
RSPB Premium feeding station for birds (with sturdy base)	Cost	£50.00	£50.00
	Latest Cost	£50.00	£50.00
Project Item Total	Cost	£2,958.50	£2,958.50
	Latest Cost	£2,958.50	£2,958.50
Grand Total	Cost	£2,958.50	£2,958.50
	Latest Cost	£2,958.50	£2,958.50

Section 7 - Lead Applicant Declaration

Declaration

I hereby declare that the information provided in this application is true and correct to the best of my knowledge.

Checked

I understand that all reports must be submitted in a timely manner otherwise the Royal Society retains the right to reclaim grant money. Details about the reporting requirements can be found [here](#).

Checked

I understand that if I have funding left at the end of my project it must be spent in one of the following ways:

- To pay for teacher cover for the teachers involved to embed the learnings from the project in the school.
- To replace consumables so that the project can re-run.
- To purchase equipment to develop and extend the original project.
- To run a session or showcase the project work at a conference.
- To produce teaching resources or guidance documents about the project which could be shared with other schools to run a similar project.
- To pay for a school trip which relates to the work the students carried out through their project.
- To produce a video, blog or podcast about the project (and share with the Society).

Checked

Name and Surname

[REDACTED]

Date

22 April 2024

Section 8 - Collaborating Applicant Declaration (STEM partner)

Declaration

I hereby declare that the information provided in this application is true and correct to the best of my knowledge.

Checked

Name and Surname

[REDACTED]

Date

26 April 2024

Section 9 - Head Teacher/Principal Support

Full name:

[REDACTED]

I confirm that the school is aware of this grant application and gives their full support to the lead applicant to run the project.





Checked

I understand that the Royal Society retains the right to reclaim grant money if the lead applicant does not submit the required reports in a timely manner.

Checked

Supporting documents

Please upload any documents (PDF), that you feel may support this application.

-
-  [Science](#)
 -  15/04/2024
 -  09:06:24
 -  pdf 224.54 KB