

# Our World From Space

## A National Science Engagement Programme

### Information and Invitation to Participate



**Deadline for Applications 28<sup>th</sup> April 2023**

A programme run by ASDC and funded by [UK Space Agency](#) in partnership with [Natural Environment Research Council \(NERC\)](#), part of [UK Research and Innovation](#)



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## Introduction

ASDC is launching a new 2-year national STEM programme exploring and sharing the relevance of UK space science for the future health and sustainability of our home planet.

*Our World From Space* will leverage current learning and connections from ASDC's wider suite of national STEM programmes to celebrate, engage and inspire audiences with UK Earth observation science, innovation and skills. It will build upon the extensive training, knowledge and equipment of two previous ASDC programmes, Destination Space and Operation Earth, which have run concurrently in previous years. This existing expertise will be coupled with an external and robust evaluation programme to explore the impact for participants and practitioners.

ASDC invites up to 23 science and discovery centres and museums to engage their audiences with an exciting range of meaningful experiences that combine depth and breadth of engagement across the key content areas. From global themes down to hyper-local case studies, the programme will use awe, wonder and inspiration, alongside immediate relevance, to increase audiences' understanding, engagement and sense of ownership in relation to these areas.

This programme will specifically challenge perceptions of space science being "not for me" and will focus on the impact and relevance that space science has for daily life, as well as for the most pressing challenges our society and world face today.

ASDC will provide participating centres with new equipment, resources and activities accompanied by a digital handbook that will cover the key topic areas for delivery and bring in relevant resources from Destination Space and Operation Earth. Participating organisations will have access to a bank of resources to choose from rather than being provided with a single set of project kit. This builds on the approach of ASDC's most recent programmes, with participating organisations choosing how to use the funding to complement and strengthen their plans to best serve their partners and audiences. We anticipate that each organisation will choose their preferred methods of engagement from a range of activities that can be adapted for a variety of set-ups such as shows, workshops, and busking. These may also include careers information, large-scale event ideas, STEM club activities, community-focussed activities, and innovative digital engagements.

ASDC's priorities for delivery are hands-on, interactive and in-person events, or innovative digital, hybrid and at-a-distance delivery where it provides opportunities for wider inclusion and accessibility. Multiple and repeat engagements are encouraged where this is more appropriate for the target audience.

**Timeframe:** April 2023- March 2025, with the delivery period taking place from June/July 2023 and wrapping up by December 2024.

**Scope:** *Our World From Space* will be delivered by up to 23 science and discovery centres and museums, with participating organisations choosing where to prioritise their engagements across the key audiences.

**Funding:** The programme is majority funded by the UK Space Agency, with additional funding from the Natural Environment Research Council (NERC), part of UK Research and Innovation.

### Programme Vision

To inspire and empower a society that embraces the value and relevance of space science for everyday life and the sustainable future of our planet.

### Programme Mission

To leverage the ASDC network to promote curiosity and identity with UK space science through interactive, meaningful and exploratory experiences for school children, teachers, families and diverse communities across the UK.

### The Programme Key Goals

The key goals for *Our World From Space* that will be examined through the evaluation are as follows:

1. To engage, inspire and involve school-aged children, their families and their teachers with a sense of curiosity and discovery about the UK's role in space
2. To promote an understanding of the value of Space for the future sustainability of Planet Earth.
3. To build on the previous phases of Destination Space and Operation Earth, effectively supporting science capital with a personalised and localised approach that promotes the relevance of UK space science to daily life, through a 'from global to local' narrative.
4. To provide professional development and build capacity for science and discovery centre and museum staff and organisations.

*Our World From Space* will provide up-to-date knowledge, in-depth understanding of the content areas, enabling participating organisations to build confidence in engaging with satellite, Earth observation, and climate resources.

Based on experience from previous programmes the impact and legacy of these elements is expected to reach beyond the project period in terms of participating centre's staff knowledge, experience and expertise in terms of the science content, project management, and evaluation approaches.

## The Key Audience

The key audiences for this national programme are:

1. Children and young people aged 5 – 14, with a focus on children aged 7 – 11 as an age group that the ASPIRES academic report showed is vital to engage due to early formation of STEM identities. An emphasis of this programme is to include and involve children from a diverse range of: ethnic, cultural and socio-economic backgrounds, life experiences, genders, and abilities/disabilities - with an un-biased approach that engages and enthuses all equally.
2. Parents, carers and wider families of these young people so they are equally inspired and can encourage children's learning, interest or career aspirations into the longer term.
3. Teachers of these young people, to inspire them personally with the latest space science and encourage them to bring new ideas, content and space careers into their future class activities.
4. Science centre and museum professionals in selected centres, and across the wider sector, who can be inspired to include spaceports, satellites, human exploration, Mars, the science of the Webb Telescope and environmental science content across their shows and activities, bringing the impact of *Our World From Space* to a wider national audience for greater legacy.

## Key Content Areas for *Our World From Space*

With an overarching theme that highlights the value and relevance of space science for the sustainable future of planet Earth, ASDC invites applicants to consider including the following areas of content for the delivery period:

- **Space for Planet Earth:** satellite-enabled Earth observation science, geoinformation and the UK expertise that contributes to the understanding of and solutions for:
  - **Climate**
  - **Clean Air**
  - **Land**
  - **Oceans**
  - **Biodiversity**
- How satellites are used for Earth observation
  - satellite technology and applications
  - opportunities in this area linked to UK Spaceports becoming operational,

- “Global to local” narratives and ways for individuals and groups to take action on climate and environmental issues, including “at home” science, lifestyle choices, and citizen science projects.

## The Project Team

This programme will be directed, and project managed by the Association for Science and Discovery Centres. Please see below the members of the team running this programme and their roles.

Dr Kierann Shah	Project Director	<a href="mailto:kierann.shah@sciencecentres.org.uk">kierann.shah@sciencecentres.org.uk</a>
Cait Campbell	Project Manager	<a href="mailto:cait.campbell@sciencecentres.org.uk">cait.campbell@sciencecentres.org.uk</a>
Rachael Tapping	Communications & Digital Manager	<a href="mailto:rachael.tapping@sciencecentres.org.uk">rachael.tapping@sciencecentres.org.uk</a>

## What is on offer for participating Science and Discovery Centres and Museums

### The programme will offer selected organisations the following:

1. A £8,000 grant to assist with delivery at each centre, which may be spent on staff time and other delivery costs.
2. An additional £1,500 grant to purchase new equipment most relevant for their methods engagement and the themes of the programme\*. An equipment list will be provided along with necessary training.
3. New content and training around the Key Content Areas explored through this programme: Earth observation, Climate, Biodiversity, Clean Air, Land, Oceans, Biodiversity, and Satellite Technology and Applications.
4. The *Our World From Space* digital handbook full of content, information, activities, and videos, to assist in the delivery of the programme. This will also include relevant content from Destination Space and Operation Earth programmes.
5. Fresh new branding and guidelines for delivery of *Our World From Space*, including a Microsoft SharePoint site for resources.
6. A two-day training academy for participating science centres and museums to share and train staff on the new content and share best approaches and practices. This will include training on the new kit as well as keynote speakers on relevant topic areas.
7. Introductions to NERC scientists, researchers, and space industry professionals, and offering ways to use the activities for informal discussion and meet-the-expert sessions for families. In addition, support to explore ways to develop long-term relationships between participating organisations and their local research centres.

8. Ongoing support following the training academy, to help and assist with equipment, materials, collaborations, programming and evaluation should it be needed.
9. A developed and replicable evaluation programme that produces an academically robust evaluation report delivered at the end of the project period. The external evaluator will be working closely with each organisation to design a bespoke evaluation process.
10. Regular Community in Practice meetings, open to the wider STEM public engagement sector and space sector across the UK.

*\*There may be kit that can be bought at lower cost or bespoke kit that needs to be ordered centrally, with the cost per organisation taken from the equipment grant. Participating organisations will have the option to opt in or out of this.*

## The Grants

The grants of £8,000 may be used to contribute to staff time, science expertise (in-house and external), for scientist or developer involvement, photography, software, hardware, or other costs your organisation needs to make a great success of this project.

An additional £1,500 is available to purchase new pieces of kit which will be demonstrated at the training academy.

ASDC will not be purchasing and sending out a full pre-prepared kit, each organisation will have to decide how they plan to spend the grant, e.g. which pieces of kit they will purchase and what activities they plan to do and inform ASDC of this.

### The grant claims are on the following dates:

	<b>Date to invoice ASDC for Grant</b>		<b>Grant amount</b>
<b>Grant payment 1</b>	June 2023	Paid after signature of the grant agreement	£4,600
<b>Equipment Grant</b>	July 2023	Paid after attending the training academy and deciding on what activities and kit is required/desired.	£1,500
<b>Grant payment 2</b>	December 2024	On completion of your project, submission of your evaluation data and submission of your interim report in April 2024 and final report December 2024.	£3,400

Note: this is a grant. If your centre feels VAT needs to be charged then it must be within the total amount claimed.

## Commitments of selected organisations

### **The selected organisations will need to commit to the following:**

1. To reach children and young people aged 5 – 14 and their families, communities and teachers in a highly engaging manner on the key topics outlined in the programme during the delivery period July 2023-December 2024.
2. To ensure that the activities are delivered focussing on the vision, mission, key goals and key audiences.
3. To ensure two members of staff attend the two-day training academy in June 2023
4. To inspire audiences who may not ordinarily engage with STEM, to enjoy, contribute to, question and critically think about STEM, making the link between STEM and their everyday lives and interests.
5. To collect the specified metrics data throughout the delivery period and submit an update on this to ASDC project manager quarterly.
6. To submit an interim and a final report on the dates given and to share information with ASDC for the purposes of reporting in a timely manner.
7. To submit all required evaluation, on the dates given. The format will be light touch along the lines of other ASDC national STEM programmes to create a multicentre dataset.
8. To provide photographs of delivery such as during workshops, events, school visits, and confirm permissions to be able to use these photos for reports and ASDC websites.
9. To market the family shows and all *Our World From Space* activities and materials in accordance with the guidelines using the correct logos and branding.

## Programme reach and significance

The UK Space Agency require reporting on 'Interaction Hours' which some of you may already be familiar with from the most recent phase of Destination Space. This is a way of accounting for the depth of engagement, which will vary across different activities.



*Our World From Space* has an ambitious overall target: to support the engagement of up to 300,000 children and adults across the UK. However, in order not to preclude opportunities for more 'in-depth' community engagements, the aim will be for each centre to reach 3000 Interaction Hours of engagement in a mixture of 'frontline' and 'in-depth' engagements.

### **Interaction Hours**

UK Space Agency now require all their programmes to report on Interaction Hours, interaction hours are calculated by multiplying the number of participants by the dwell time in hours of the engagement. For example, the interaction amount of a 30-minute workshop for 30 school kids would be  $30 \times 0.5 = 15$  interaction hours. We will be asking you to include these calculations in the metrics table and report on them on a quarterly basis.

There is flexibility on using approximations for the dwell time as this can be difficult to record in the moment especially when at an event. Please contact the ASDC project manager if you have any question on this.

### **Evaluation**

The proposed approach builds on experience with the evaluation partners for the 2021-2022 Operation Earth and Destination Space projects, Ondata Research Ltd. A responsive and flexible approach will be taken with organisations, with individual evaluation plans developed that focus on the project aims and objectives, with tools adapted for the activities to ensure their use. The approach will ensure a more equitable and un-intrusive approach for audience groups to avoid taking away from their experiences with space science.

A focus for the *Our World From Space* evaluation will be to enhance the audience feedback being gathered by the organisation, with the additional emphasis on staff self-reflection, for an exceptional piece of resulting research, the learning of which can be shared widely and replicated. As the *Our World From Space* evaluation strategy evolves we still have the intention for organisations to capture the below:

- Metrics e.g., number, demography, dwell time, type of activity
- Confidence, agency/ownership
- Perceived relevance of content to everyday life and value of Space for Planet Earth

Evaluation guidelines and toolkit will be provided by the external evaluator along with a meeting to discuss in detail, after acceptance onto the programme.

## Project Delivery Schedule and Key Dates

2023	
31 <sup>st</sup> March	Invitation to Participate issued
<b>19<sup>th</sup> April</b>	<b>Bidder's Q&amp;A</b>
28 <sup>th</sup> April	Proposal Application deadline
May	Project starts: Contract signature and issuing of first grant upon receiving the signed contract.
End of May	Participating science centres and museums announced
7 <sup>th</sup> -8 <sup>th</sup> June	<b>Two-day Training Academy</b> Training academy for at least two members of your organisation's team
June	Choose and purchase kit required for delivery
July	Evaluation clinics organised with external evaluator
July, August	<b>Delivery of <i>Our World From Space</i> begins</b> Themes of Climate, Biodiversity, Clean Air, Oceans and Spaceports taking place across the UK
<b>28<sup>th</sup>-29<sup>th</sup> September</b>	<b>ASDC National Conference: The Power in Purpose. Located at W5 science centre, Belfast.</b> Opportunity to bring all participating organisations together.
October	<b>First Community in practice meeting – UK Space Science</b> Expert guest speakers to discuss key updates in UK Space sector. Held online and open to all members and wider space sector
November	Review meeting with all participating organisations
2024	
January - April	<b>Delivery of <i>Our World From Space</i> continues</b>
January	Community in Practice meeting 2- UK Space Science
March	First round of data collation in process
1 <sup>st</sup> April	Interim reports submitted by science centres and museum to ASDC
April	Community in Practice meeting 3 - UK Space Science
July	Optional check-ins for [participating centres
July	Community in Practice meeting 4 - UK Space Science
<b>September</b>	<b>ASDC National Conference - location and date tbc</b>
1 <sup>st</sup> December	<b>Delivery of <i>Our World From Space</i> finishes</b>
15 <sup>th</sup> December	Final participation data collated, final reports due, delivery photos collated. Final grants issued to participating organisations
2025	

## Application Process

### Is your organisation eligible to apply?

#### **Organisations will be eligible to apply for funding if:**

- They are a member of ASDC and will remain a member for the duration of the programme (valid membership until March 2025)
- They have been in existence for at least one year
- They can commit to the targets outlined in this document
- They are not required to have delivered Operation Earth or Destination Space previously.
- This programme is not open to ASDC Associate Members

### Bidder's Q&A session: 19th April

ASDC will hold a bidder's Q&A session via Zoom on Thursday 19th April 2pm-3.30pm, where all science centres and museums interested in applying will have the opportunity to hear about the programme from the ASDC team, have their specific questions answered and hear the responses given to others who would be bidding.

This open framework has been used in all previous ASDC programmes, to answer questions and give clarity over what centres need to deliver, schedules, audiences, grants, budgets and reporting before each centre applies. The funders will be present at this meeting and can answer questions directly.

**Please book your place on our Eventbrite page [here](#)**

**We ask that all science centres applying submit a short proposal with the fundamental Vision and Mission of the programme at heart, and the following points clearly outlined:**

- What audiences are you going to engage with and why?
- What outcomes do you hope for?
- How many children/families/school groups/community groups/people will you work with? Explaining how you will reach the target numbers of this programme
- Explain how you plan to evaluate the activities (with consideration that ASDC will be working with each participating centre to prepare an evaluation plan)
- How will you involve researchers or industry people in your events/activities?

## The Selection Process

We have funding available for a maximum of 23 organisations. The participating

organisations will be selected through a competitive process. Organisations wishing to apply should fill in the accompanying application form.

The selection panel will be made up of representatives from ASDC and from the programme's funders, UK Space Agency and NERC (UKRI).

### Selection Criteria

1. Demonstrates a grasp of and interest in "space for planet Earth" i.e Earth observation, Earth science, satellite applications and use of satellite data, and related topics.
2. Has a strong track record in delivering high quality science engagement activities to schools and families.
3. Are creative and involve great ideas for activities and events to ensure as many people as possible take part in workshops and activities surrounding the key content areas, *OR*
4. Are creative and involve great ideas for activities that either increase the depth of engagement or widen accessibility for specific target groups
5. Demonstrates ability and desire to reach a wide range of audiences, including under-represented groups as part of their normal operations.
6. Demonstrates how the centre will embed *Our World From Space* themes into their public programmes and continue to run related activities into the future.
7. Can show links with members of their local university and local industry, *OR*
8. Can outline an approach to develop new links with scientists and engineers.
9. Commits to collecting data on the number of participants and interaction hours, and routinely collecting evaluation data to assure quality.
10. Shows commitment to assuring the quality and the accuracy of the science presented by all staff, as well as excellence in how audiences are engaged.
11. Demonstrates a willingness to share evaluation and learning from activities within the ASDC network.
12. Has experience of running 'meet the expert' sessions and facilitating discussion between the public and research scientists (or a desire to do this).
13. Shows in the application that they will address the goals, key audiences and the vision and mission of this programme.

### Our promise to you

At ASDC we promise to practise the following principals in the ongoing communication, monitoring and administration of these grants and aim to be transparent at every stage:

**Equity:** We are open to challenges of the structures we have in place that may contribute to these opportunities being less equitable across our sector. We commit to addressing all those within our power and remain transparent on decision-making processes, including who received funding and under what conditions these decisions were made.

**Humility:** We do not presume to know the best methods or approaches to address these grant criteria within your context and will openly challenge explicit and implicit power-dynamics emerging from these presumptions within our funding partnership.

**Evidence:** Where it is within our power, ASDC commits to using evidence to inform and justify all decisions on funding criteria and will value evidence-informed, professional proposals.

**Service:** Through listening to the sector, we aim to ensure that grant seekers are being provided for with this fund and, wherever possible, the grant proposal processes we have in place support the needs of the grant seekers above the needs of the funders.

**Diligence:** We encourage open and honest feedback on our process, are willing to listen, consider timelines, provide 1-2-1 support and will work to the best of our ability to allow for grant seekers to make the best of this grant opportunity.

## How to apply

To apply, please fill in the *Our World From Space* Application Form.

- Please send this to us as a word document.
- Please save your application form in the following format: 'OWFS Application [name of your centre].
- **Please email your application to [admin@sciencecentres.org.uk](mailto:admin@sciencecentres.org.uk)** and ensure you get an email response saying your application has been received (re-send or call us if you do not).
- **Any questions, please contact the project manager Cait Campbell [cait.campbell@sciencecentres.org.uk](mailto:cait.campbell@sciencecentres.org.uk)**
- For the avoidance of doubt, in the case of any issues, please phone us well in advance of the deadline if you need a day or two extension into the following week.
- Please join the Bidders' Conference Call at **2pm on 19<sup>th</sup> April 2023**
- If you are unsure whether to apply or would like to ask a question, please join the Bidders Conference Call. After this time, please contact Cait.

**Deadline for Applications: Friday 28<sup>th</sup> April 2023 5pm**