

How can I borrow NERC's Operation Earth kit?



Natural Environment Research Council

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What is Operation Earth?

Operation Earth is a national programme that engages, inspires and involves school-age children and their families with the Natural Environment Research Council's (NERC) world-leading environmental science research. The programme will highlight the relevance of contemporary environmental science issues to everyone's daily lives and to society's future. NERC commissioned the Association for Science and Discovery Centres (ASDC) (www.sciencecentres.org.uk/projects/operation-earth) to run the project, along with three development partners in Phase I - Dynamic Earth, the Eden Project and the Natural History Museum – with scientific expertise from NERC researchers.

Activities have been delivered under the Operation Earth Programme by the successful infrastructure of fifteen of the UK's science and discovery centres and museums, engaging over 600,000 children and adults since its launch in 2018. The activities aim to give young people and their families the confidence, curiosity, and interest to continue to explore and ask questions long after they leave the science and discovery centres. Operation Earth builds on the successes of STFC's Explore Your Universe and UK Space Agency's Destination Space.

Each of the science centres involved in delivering Operation Earth will have:

- A set of hands-on kit, including a planet Earth costume with its very own ice cap, a real-life experiment to demonstrate ocean acidification, sensors to measure air quality, and microscopes to explore living things.
- Script, guidance and kit to deliver a public show

NERC research centres and NERC researchers can borrow NERC's two sets of kit. The full Operation Earth Handbook can be viewed via www.operationearth.co.uk/resources/handbook.

Science and Discovery Centres:

You can visit your local science centre and see Operation Earth in action at:

1. Catalyst, Cheshire
2. Xplore! Science Discovery Centre, Wrexham
3. Dynamic Earth, Edinburgh
4. Eden Project, Cornwall
5. Jodrell Bank Discovery Centre, Manchester
6. Natural History Museum, London
7. National Space Centre, Leicester
8. Oxford University Museum of Natural History, Oxford
9. The Observatory Science Centre, Sussex
10. Thinktank, Birmingham
11. W5, Belfast
12. Glasgow Science Centre, Glasgow
13. Exeter Science Centre, Exeter
14. Life Science Centre, Newcastle
15. Science Oxford, Oxford



What is in the kit?

You can borrow the full kit or elements of it. If there is anything broken or missing, [please get in touch](#) as soon as possible after receiving your loan.

Equipment	How many per kit?	Equipment	How many per kit?
Show props		Table top demos	
Stethoscope	1	Ocean Acidification	
Clipboard	1	Bromothymol blue 500ml	<i>Consumable: not provided</i>
Lab coat	2	Shells (dog whelk or cockle)	<i>Consumable: not provided</i>
IR thermometer	1	1 litre plastic beakers	1
Earth suit	1	50ml plastic beakers	1
		Light box	1
		Stop clock	1
Biodiversity demo		Vinegar	<i>Consumable: not provided</i>
Giant rose (white)	1	Baking soda	<i>Consumable: not provided</i>
Giant daisy	1		
Giant rose (Red)	1	Ecology/biodiversity	
Giant sunflower	1	Soil	<i>Consumable: not provided</i>
Flower stand	4	Wildflower seeds	<i>Consumable: not provided</i>
Insect costumes - 2 x bee, 1 x fly, 1 x butterfly	1	Paper bags	<i>Consumable: not provided</i>
Pollen ping pong balls	1	Jumbo magnifiers	3
Buckets	8	Green duct tape	<i>Consumable: not provided</i>
Gloves	4	Trays	1
Bubble lamp	1		
Velcro dots	<i>Consumable: not provided</i>	Microscopy	
		Phone macro lens	2
Air quality demo		HDMI microscope	2
Pop up greenhouse	1	21-inch HDMI screen	2
Leaf blower + spare battery	1	Slides	1
Tissue paper cutter	1		
Tissue paper air particles	<i>Consumable: not provided</i>	Air Quality	
Face mask	1	Atmospheric Sensor	1
Goggles	2		
Collecting net	1	Printing /graphics	
		Graphics for air demo	1
Ocean pollution		Biodiversity mat	2
Microfibres on slide	1	Tablecloth	1
White plastic tray	1	Earth observation images (laminated)	1
Bag of nurdles	1	Banner	1
Plastic bag	<i>Consumable: not provided</i>		
Fish tank	1		
Small net	1		



Guidelines and terms and conditions for booking the kit

- The Operation Earth kits are the property of the Natural Environment Research Council (NERC) part of UK Research & Innovation (UKRI). Each set of kit is worth around £3,500. There is no charge for borrowing the kits. NERC has a limited budget to cover some costs of couriating the kit. We ask that borrowers either cover the cost of the couriating, or provide a statement as to why this public funding is needed.
- During busy periods of kit loaning you may be asked to help facilitate sending kit to the next borrower instead of returning to NERC.
- The security of all the kit, in transit and during the period of the loan, must follow the requirements laid down by NERC and will need to be agreed when applying for the kit.
- Each organisation must nominate one person to take responsibility for the loan, with a second person to act in the case of an emergency. This includes responsibility for the receipt, use (including secure storage), accountability, and return of the kit at the end of the designated time.
- This person must check the inventory to ensure all contents are received and must report any discrepancies immediately to NERC by emailing publicengagement@nerc.ac.uk. If you do not raise any discrepancies with NERC, you could be held accountable if the kit is found to be broken or containing missing elements.
- The kit should be attended and handled with care at all times. Every effort should be made to prevent the kit from being damaged.
- When borrowing the kit individuals are responsible for the care of all kit elements, if kit is damage (beyond reasonable wear and tear) and/or lost by the borrowing institution, the loan recipient may be held responsible for the cost of replacing and/or fixing the kit.
- When not in use, the kit must be locked in a safe and secure place.
- No admission charge may be made to view the kit or related engagement activities. If the organisation has an established general admission charge, no additional charge may be made to view the kit.
- Kit will be allocated on a first come first served basis, however, where there are competing demands for kit, NERC will decide based on a diversity of borrowers and institutions and may ask organisations to compromise on other borrowing times to ensure fair use across different users.

How do I book the kit?

1. **Complete the application form:** <https://forms.office.com/r/FfCC6jEsVP>
2. After approval of the loan, NERC will send a **confirmation email** with details of the booking and a full electronic **training handbook** of the Operation Earth programme.
3. Delivery and collection of the samples is by **courier** and will be arranged by NERC. There may be times when borrowers may be asked to help in arrangement of couriers.
4. Following the event, the authorised official is responsible for ensuring that the samples are **correctly packed and clearly labelled** for return either to NERC or to the next borrower and must be ready for collection by 9.00am on the agreed date.
5. The authorised official must email NERC (publicengagement@nerc.ac.uk) to confirm that the **package has been despatched**.
6. The borrower must then complete and return a short evaluation **report** form to NERC. Reporting form: <https://forms.office.com/r/MzRmIFrG4B>

Health and Safety

It is the responsibility of the loan recipient to ensure they have read, and adhere to the health and safety information on page 122 of the [handbook](#), and complete a risk assessment before carrying out any of the Operation Earth activities.

NERC Contacts

For further information, please contact the NERC Public Engagement team:
publicengagement@nerc.ukri.org

