

## **LEARNING STRATEGY 2020-2030**

The Science Museum Group is a recognised and crucial part of the STEM education ecosystem and works in partnership with educators, employers, funders, government and many others nationally and internationally.

This next phase of the Group's learning strategy acknowledges our rich history, whilst being newly ambitious in terms of reach, reputation and innovation. It embraces the SMG values of thinking big, revealing wonder, sharing authentic stories, igniting curiosity and being open for all. It sets new standards both for the quality of our audiences' experiences with SMG and for our own working practices.

### **BACKGROUND: A CENTURY OF INNOVATION**

The Science Museum Group, from its origins in the Great Exhibition of 1851, has a long history of engaging people of all ages with science. Young people have been a particular focus since the establishment of the Science Museum's first children's gallery in 1931. Today, we remain at the forefront of STEM education and communication thanks to our Wonderlabs, Explainers, work with schools, expert training, festivals and events that explore both historic and current scientific research.

STEM engagement is at the heart of what we do, and we use the concept of science capital to shape our work and provide us with research-based insight into what influences and shapes people's engagement with, and attitudes towards, science. We inform, inspire and encourage learning on-site, as well as through outreach and online. We ignite curiosity around STEM by assisting discovery through active participation and social interaction.

SMG brings together the richness of object-based museum learning with the engagement of interactive galleries. In the context of a changing and uncertain society, where inequalities are increasingly visible but "where most people believe that science and technology are a force for good both now and in the future"<sup>1</sup>, we can make a significant contribution to shared efforts to introduce both more and a more diverse range of people to STEM and the opportunities it holds for them as individuals and for society.

Learning is embedded throughout SMG and this document gives strategic direction for everyone in the organisation at every location, not just the Learning team.

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<sup>1</sup> British Social Attitudes Survey 2019

## **INSPIRING FUTURES: STRATEGIC PRIORITIES to 2030**

In 2017, SMG published *Inspiring Futures*, a Group-wide strategy with a vision for a *society that celebrates science, technology and engineering and their impact on our lives, now and in the future*.

The Group mission is to inspire futures by:

- Creative exploration of science, technical innovation and industry, and how they made and sustain modern society
- Building a scientifically literate society, using the history, present and future of science, technology, medicine, transport and media to grow science capital
- Inspiring the next generations of scientists, inventors and engineers

To achieve this, seven priorities are identified:

1. Grow science capital in individuals and society
2. Grow our audiences and exceed their expectations
3. Sustain and grow our world-class collection
4. Extend international reach
5. Transform our estate
6. Harness the potential of digital
7. Increase income

Learning team colleagues have a role to play in achieving all these priorities, with a focus on the first and second.

## **OUR APPROACH**

In order to achieve these priorities, the approach to learning at SMG is to be:

- audience-centred, accessible, diverse and equitable
- evidence-based; guided by academic learning and audience insight
- collaborative; encouraging unity rather than uniformity across SMG
- relevant; responding to and shaping policy and practice
- agile, efficient and sustainable

## **OUR AUDIENCES**

Each of our museums has identified priority audiences based on an attitudinal segmentation. Learning programmes and activities, including those for children and families, are developed to serve the needs of these priority segments. We also design programmes, resources and activities for teachers and students as well as for audiences off-site who are reached through outreach, project work and through our digital offer.

During the period of this strategy, we will serve our audiences more efficiently and stretch both the diversity of our reach and the range of our content; on and off site and across digital channels. We will also do more to harness our success by sharing popular formats and approaches across the Group. Recognising that there is a significant minority of people who would not yet consider our museums – or indeed any museum – a place for them, we will develop a consistent, high-quality offer to engage members of local communities and interest groups.

## OUR AMBITIONS to 2030 are grouped into four areas:

1. Reach out
2. Collaborate
3. Innovate
4. Lead

## OUR RESOURCES

We acknowledge that the ambitions of this strategy over the next decade may exceed our existing resources. It will be necessary to prioritise and develop plans for each area of work which detail the changes needed both in efficiency and income generation and fundraising.

It is not envisaged that all activity will take place for everyone, at every place, at every time. Instead, in exploring these ambitions over a ten-year period, significant change and progress will be able to be seen in some areas after three years and further after five so that by 2030, the overall offer will be significantly different. In each section below a flavour of this change is indicated, but annual business plans will provide the detail.

### 1. REACH OUT: extend the range and depth of our learning activity

We commit to extending and deepening the reach of our learning activity, being open for all, so that everyone can find routes into our collection and stories in ways which are authentic, relevant and meaningful.

As previously stated in *Inspiring Futures*, we will

- reach many more people beyond our walls through outreach and new programmes, including through national and international partnerships
- ensure that the Science Museum remains the number-one UK museum destination for school groups
- ensure that our online learning resources will be highly regarded for quality and widely used throughout the UK and around the world, and
- help to make our museums key destinations for adult audiences.

In addition, we also aim to

- continue the Science Museum Group Academy beyond its initial funding period and further extend its reach to teachers, museum

#### The need for change

Scientific advances increasingly determine how we live, communicate and create more sustainable lifestyles. Being connected to and engaged with science fuels our ability to play an active role in shaping the future. In the UK alone the number of new STEM roles needed is set to double over the next ten years, and yet many people are not able to make the most of these opportunities and too often feel that science is 'not for them'. With this growing skills gap in an increasingly technology-driven society, we must play our part in increasing engagement with STEM, so that more people do not miss out.

- professionals and scientists both in the UK and internationally
- develop and deliver site-specific local community engagement plans to reach and collaborate with underserved audiences most local to our museums
- develop a sector-leading offer for early years children (aged 0-7)
- provide activities and resources which support parents and carers to recognise their influence on their children's interest in STEM
- create an online destination for children and families
- increase the number of schools visiting our museums outside London and introduce a schools' offer at the National Collections Centre in Wroughton
- provide more guidance and better structure for school visits so that they are the best experience possible for the visitors and more efficient for the museums (including improved rates of use of our learning resources)
- re-imagine our schools' outreach service so that is it efficient, well-funded and can be equitably delivered across the Group
- provide interpretation, experiences and activities that are attractive and meaningful for teenagers and young adults
- deliver sector-leading science festivals and large-scale events by pooling our expertise and resources across the Group
- consider carefully the business models of all strands of learning activity so that they are priced appropriately for their audience and are funded in the most effective ways

## 2. COLLABORATE: support learning at the heart of our organisation

We commit to working collaboratively, in partnership internally and externally, sharing and influencing to support everyone at SMG to build effective learning practice into their work.

To achieve this, we aim to

- share our research-informed best practice frameworks across sites and teams, including an approach to working with teenagers and community engagement
- further develop, apply and share science capital informed best practice
- create Group-wide professional development programmes for SMG Learning staff to learn with and from other colleagues across sites and departments
- work closely with colleagues to develop a flexible Group-wide mechanism for developing and sharing learning programmes and activities, expertise and resources, including for a new programme at the National Collections Centre
- develop ways to work more collaboratively across departments and sites to ensure that opportunities for learning best practice are grasped early in projects, programmes, capital developments and partnerships
- work more deeply with SMG volunteers, STEM Ambassadors, communities and interest groups to bring authentic, diverse voices into our practice

### The need for change

Our own learning and that of our audiences is not the preserve of the Learning team. By working together across sites and teams more thoroughly and consistently and listening to and working with a broader range of external voices, we can provide more rewarding experiences for staff, volunteers and visitors.

- work in close alignment with the commercial public offer to support both learning objectives in commercial activities and the Group Income Strategy

### 3. INNOVATE: our content and in our working practices

We commit to innovation. Learning from research and insight, both our own and that of others, we will explore new content areas, constantly improve existing work and ensure that we understand how to work in the most effective ways to support our audiences' learning. Those activities and areas of work which no longer enrich our audiences' experiences will be brought to an end.

To achieve this, we aim to

- bring maths and computing fully into our offer for schools and families
- seek out opportunities to bring the power of digital technology into how learning activities are delivered to deepen engagement, amplify reach, provide new forms of interactivity and increase efficiency
- ensure that events for all audiences continue to explore cutting edge research and contemporary issues such as artificial intelligence and green energy
- embrace our role as collection-rich museums and as places of interactive engagement, ensuring that activities are delivered across our different learning environments and galleries
- embed science capital principles in everything we do, to ensure that SMG is truly open for all current and potential visitors, staff and volunteers
- work with businesses, industry and education providers to bring the authentic voices of contemporary STEM and STEM-related careers content into our activity
- assess and improve the environmental sustainability of our work
- become more self-sufficient by increasing the proportion of funding raised by learning activities either directly or via raised funds

#### The need for change

Innovation is at the heart of scientific discovery. To represent STEM fully to our audiences we need to constantly be developing and evolving our practice to refresh and refine the stories we tell and how we tell them. We should be at the cutting edge of museum and science learning experiences.

### 4. LEAD: influence and lead practice across the sector nationally and internationally

We commit to working at the forefront of our professional disciplines so that we are recognised for our expertise in informal science and museum learning.

As described in *Inspiring Futures*, our work will be of strategic importance to the UK STEM agenda and will be sought out by policymakers, funders, peers and partners.

To achieve this, we aim to

#### The need for change

In a crowded STEM education landscape, with urgent drivers for action as described in the government's Industrial Strategy, it is vital that SMG has a clearly defined and acknowledged role, making the most of our learning expertise for the benefit of all.

- be the home of science capital in museums and informal science learning environments
- share our best practice knowledge externally, including working with schools, families, early years audiences and teenagers
- engage with relevant business communities as a platform for their work to be shared with the public
- act as consultants to museums, science centres and others who wish to learn from our expertise
- embed our work in government policy and strategy
- ensure that SMG learning is represented
  - at conferences and in publications nationally and internationally
  - on external groups related to science education and communication
  - as part of government agendas and initiatives

## OUR IMPACT

Our commitment to an evidence-based approach to learning over 25 years means that we have a comprehensive understanding of the effectiveness of our programmes and projects and of the needs and wants of our current and future audiences. We will continue to develop annual business plans to measure, quantitatively and qualitatively, the impact of this strategy on our audiences, our content and our practice.

In general terms, we will know that this strategy is successful when

- we have increased the reach of our activities, resources and courses at our museums, off-site and on-line
- we are valued partners of our local communities
- all our sites are among the most visited by schools in their local area
- we are recognised nationally and internationally for the quality of our work
- SMG learning expertise, events and programmes are shared and understood across sites in an efficient and agile way
- we have increased the income generated from our learning programmes

## APPENDIX: DEFINITIONS

Our definition of **learning** is that of the Campaign for Learning;

*'the development or deepening of skills, knowledge, understanding, awareness, values, ideas and feelings, or an increase in the capacity to reflect. Effective learning leads to change, development and the desire to learn more'*

**Science capital** is a measure of your engagement or relationship with science, how much you value it, and whether you feel it is 'for you' and connected with your life. It recognises the significance of what you know, how you think, what you do and who you know in shaping your relationship with science. It also helps to shape and frame experiences which are designed to support STEM engagement.

Learning is learning wherever it happens, but **informal learning** is distinct in that it:

- Complements formal, curriculum focused education
- Inspires learners across the whole of society
- Is learning through 'hands-on' experiences (discovery learning) and self-construction of knowledge (constructivism)
- Gives choice and control and is not tested or examined
- Benefits beyond content knowledge
- Helps to broaden the perception of what STEM is