

The National Space Centre

The Countdown Begins...



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University of
Leicester

The Countdown has begun for the opening, on June 30, of one of the most exciting developments in Leicester's history – the National Space Centre. This £52 million project, sponsored by the Millennium Commission, is the brainchild of the University of Leicester and has been realised through the forging of key partnerships. In the first of a series of features on the Space Centre, *Bulletin* provides an overview of what the Centre has to offer.

DESTINATION LEICESTER

The National Space Centre is the UK's only attraction dedicated to space science and astronomy. From the sight of the Space Centre's futuristic Rocket Tower, visitors are treated to three breathtaking hours of discovery where the stories, personalities and technology of the past and present are used to explain our current understanding of space and how it will affect our future.

Visitors will find themselves immersed in an awe-inspiring journey, taking in five differently themed galleries, seeing space rockets, satellites and capsules, taking part in hundreds of interactive hands-on activities and experiencing the latest in audio-visual technology.

ZONES IN THE NATIONAL SPACE CENTRE

Into Space

The "who, what, why and how" of going to space. What does it take to be an astronaut? How do you go to the loo, eat or breathe when you get there? What do people do in space anyway?, Visitors can look to the future with the **International Space Station**, and find out all about the teamwork, hardware and technology behind getting into space. The rocket tower contains Space Centre's biggest rockets and a magnificent satellite gallery full of artefacts from around the globe. But it's not all about looking - how about launching your own rocket? Rocket Science made easy!

Exploring the Universe

How did it all start? Where might it all end? Is there anyone else out there? This is where to look to find out the answers to those BIG questions about space and how scientists are constantly coming up with new suggestions. Make an **alien**, follow stars through their life's journey, crawl through a **worm hole** or simply find yourself in awe of the Universe's exotica.

The Planets

The modern science and ancient culture of our solar system are brought together in glorious technicolour. The **Sun, planets, Rings, moons and rocks** are there for the exploring, as the Centre lays science fact and science fiction alongside each other.

Orbiting Earth

Explore the way man looks at our dynamic and beautiful planet, and how we use space in a multitude of ways to enhance life here on earth. Have a go in the **weather forecasting studio** - it's not as easy as it looks!



The Space Theatre

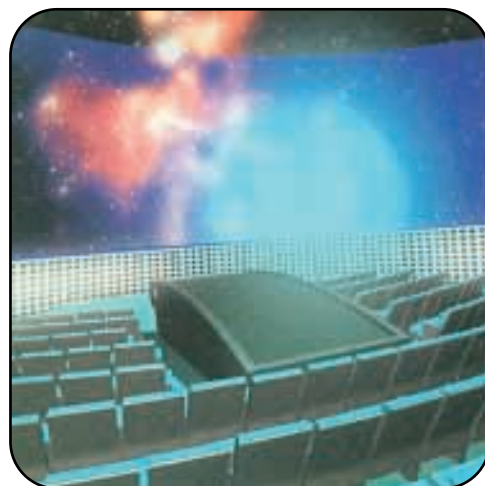
Visitors now have the chance to see the universe from close up. This is much more than just seeing the stars in a planetarium - the hi-tech domed Space Theatre promises an amazing voyage of discovery.

There are currently two shows in the Space Theatre:

Big! This is about the biggest thing known - the size of the universe. But just how big is big? Visitors travel through space as far as presently possible in an attempt to measure just how big the universe really is. Using light coming from ever more distant objects visitors also look back in time, often reflecting upon past earth events connected with our light-travel back in time.

Using the latest in technology to create laser special effects and strikingly original computer generated animations together with immersive surround sound, the journey visually reveals the exciting and magical beauty of the universe.

Running Time: 20 minutes



Sunshine! is for young children under the age of 5 years old and young adults who use the children to gain access to the fun filled show. Sunshine, a loveable animated cartoon Sun, doesn't care if the young children get loud or excited; in fact he wants them to look around, raise their hands, sing and play along with his tricks.

In the process the children are introduced to the colours of the day sky and the other suns of the night sky. Sunshine! is produced in immersive 3D studio Max to present

strikingly original professional computer generated animations for ElectricSky theatre presentations. An original and professional musical score in stereo or 5.1 Surround sound accompanies the video production.

Running Time: 20 minutes

Schools and Education

For those who have ever wanted to send their children to Mars – well now's the chance! The National Space Centre is not simply a new attraction - it is also an educational facility and research centre dedicated to the subject of space science.

Children can be wowed by rockets, satellites and other space capsules (and learn what they're used for and how

they work). They can have a go at presenting the weather in 2050 (whilst finding out lots of other reasons why satellites are used). They can experience what it's like to go for launch in a space shuttle (and learn about the effects that going into space has on your body), or be puzzled by why Saturn is placed in a bathtub (until they learn about the planets' properties, and myths and legends associated with them).

With a whole array of interactive challenges, audio-visual presentations and real space artifacts, the National Space Centre is unlike any attraction anyone has visited in the UK before.

In addition to its general educational mission, the Centre offers a range of specific educational programmes designed to help children learn about science, maths and technology. All the programmes are specially written to link directly to the relevant parts of the National Curriculum. Whenever schools book a visit to the Space Centre they are provided with activities for the classroom to complement the visit, as well as trails for use in the exhibition when they arrive. There are three classrooms within the Space Centre, which are the venue for occasional special workshops.

Rising to the Challenge

The first Challenger Learning Centre to be built outside North America opened in Leicester in October 1999, well ahead of the main visitor centre. Challenger is an educational facility unique both to this country and to Europe.

Challenger Centre is already a proven concept in America. Children following programmes in the National Space Centre's Challenger Learning Centre take part in simulations of space missions that are specially rewritten by University academics for use in conjunction with the UK's National Curriculum.

In this way, young people share the experiences and challenges of scientists and engineers engaged in such missions. While each programme has a space exploration theme, they are designed to promote concepts in maths, science and technology, while encouraging students to improve their communication, decision making, problem-solving and teamwork skills.

Students work in teams in mission control and aboard a space station during the innovative space-themed "lessons," with titles such as "Rendezvous with a Comet," "Return to the Moon" or "Voyage to Mars". Teachers prepare students using both pre- and post-flight activities that integrate the experience into traditional classroom instruction.

Challenger is also available for corporate use and was, for many months, located next to the University before being relocated to Abbey Meadows.

Restaurants

Boosters is the Space Centre's own restaurant, where you can have your lunch right beneath the attraction's two biggest rockets! With **Blue Streak** and **Thor Able** suspended above you, there's never a shortage of things to talk about over a cup of tea - just how did they get those massive objects in there? How are they held up? Just how big are they anyway? Alternatively, why not have a snack in the **Satellite Bar** and, if it's sunny, on its riverside terrace?

CARGO Bay

The Space Centre shop has a range of souvenirs, books, posters and scientific toys, as well as selling various educational resources. There are also restaurant facilities on site. The National Space Centre is available for corporate hire in the evenings from 7pm, and in the mornings until 9am.

How is the Space Centre Funded?

Fifty per cent of the National Space Centre's £52m capital cost has been funded by the Millennium

Commission. The Space Centre is the East Midlands Landmark Millennium Project.

There are four other founding partners, each of which has contributed at least £1m in funding: Leicester City Council, the University of Leicester, East Midlands Development Agency and BT.

Significant contributions have also been received from the

exhibition sponsors - Walkers, the Met. Office, Omega, BNSC and Astrium.

Who designed the building?

Nicholas Grimshaw and Partners architects, of London, designed the National Space Centre building. They won the right to design the Landmark Building after a competitive process involving five firms in 1996. The process of choosing a design to submit within the bid to the Millennium Commission involved the Leicester public, with consultation days and community meetings held to gauge public opinion.

Its main feature is the 41 metre high "Rocket Tower", which dominates the local skyline. The semi-transparent tower, which is clad with high-tech ETFE "pillows", was designed specially to house the attraction's largest artifacts, including huge rockets. The tower has been designed in such a way that the side of the tower may be partly detached again in the future to allow easier access during replenishment of large exhibits. Several "decks" placed at various heights down the tower, connected by a series of staircases, have been incorporated.

The rest of the Space Centre's visitor experience, its planetarium and space science research unit is housed within the main body of the building, which is built



partially below ground level within the walls of the old storm water tanks. The entrance to the Space Centre is reached from a courtyard, in which the Challenger Learning Centre building is located.



Where have the artifacts come from?

Although just a small part of the overall Space Centre experience, the attraction's artifacts are stunning, and are worth more than £11 million in total. They range from massive

rockets, capsules, satellites and space suits through to smaller objects like communications headsets and real space food.

They have been obtained from around the globe - including Britain. A lot of publicity has surrounded the Blue Streak rocket now hanging in the attraction's rocket tower - it is on long-term loan to the Space Centre from Liverpool Museum (NMGM). There are several items on display from the United States, including an Apollo Fuel Cell (on loan from the Smithsonian Institute); Europe, including MOP 4, which was the flight spare for Meteosat-7 and Russia, including the amazing Soyuz Space capsule that is hanging in the entrance of the attraction.

How long will a visit to the Space Centre last?

On average, it's suggested that visitors allow three to three and a half hours for their visit. It will take about two hours to see and do everything within the five galleries, and the space theatre show will last about 40 minutes. When people buy their ticket it includes a seat in a specific timed space theatre show.

Why is the space centre located in Leicester?

The simple answer is that, in fact, Leicester chose the Space Centre and it could not have happened anywhere else! The project was the brainchild of the University, with its immense expertise in space science research and astronomy. The University originally suggested that an educational visitor attraction on space would be a uniquely imaginative contribution which Leicester could make to mark the new millennium. Leicester City Council (with other local organisations) immediately recognised the strength of this proposal, and the Council, and the University joined in submitting a successful joint-bid for funding to the Millennium Commission in 1997.

Members of staff of the University have played a prominent part in helping to bring the Space Centre to its successful completion – managing the bid, serving on the Board, advising on exhibition

content and educational programmes - and the University will continue to be actively involved in these ways as the Centre develops.

SPACE RESEARCH CENTRE

The Space Research Centre is part of the Department of Physics and Astronomy of the University of Leicester. The Centre has the role of carrying out the space research programme of the University in collaboration with other members of the Department. The Centre also has the aim of establishing cross-departmental initiatives inside the University.

The Space Research Centre has strong links with the space programmes of ESA (Europe), NASA (USA), NASDA (Japan) and the Russian Space Agency. The Space Research Centre is also a key component of the National Space Centre, providing the links the Centre needs into current research.

Who's going to open the Space Centre?

The National Space Centre will open to the public on June 30th and will have an official opening shortly afterwards. The identity of those to be involved in its official opening ceremony is currently a closely guarded secret.

Opening times

The National Space Centre, off Corporation Road in Abbey Meadows, Leicester, is open from 9.30 every day except Mondays (closed during school term times, open 12 noon during school holidays.) Last entry is at 4pm Tuesday to Friday during term times and 4.30pm at all other times.

Advance bookings

Tickets may be purchased in advance in person from the Space Centre or by phoning our hotline on 0870 60 SPACE (0870 60 77223). You can also buy tickets in person at any Tower Records store nationwide plus selected Waitrose, HMV and Virgin Megastore Picadilly or online at www.ticketmaster.co.uk. All phone and internet bookings are subject to a booking fee. Advance tickets are available one month prior to your visit.

For more information or to book a ticket please call the Space Centre hotline on 0870 60 SPACE (0870 60 77223).

The University is a Founding Partner of the National Space Centre. It is a member of the governing charity, National Space Science Centre, and appoints members to its Board of Trustees. It also appoints a scientific director to the operating company and participates in various advisory groups.

Prices

All entrance prices include a timed space theatre show:

| | Single Visit | Season Ticket (valid 12 months) |
|------------------------------------|--------------|---------------------------------|
| Adult | £7.50 | £16 |
| Child (5-14 years) | £5.50 | £12 |
| Senior Citizens/Students*/Disabled | £5.50 | £12 |
| Family (2 adults + 2 children) | £22 | £45 |
| Family (2 adults + 3 children) | £27 | £55 |

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