



Scientist-led educational planetarium shows and hands on workshops!



Lab Rascals is Unique

We believe the best way to learn is by doing - that's why all our presenter-led planetarium shows are interactive, and hands-on workshops involve every child doing each experiment. *" I hear and I forget, I see and I remember, I do and I understand" (Confucius)*

Lab Rascals was established in 2012 as a result of research conducted at the University of Hull. We now offer a range of planetarium shows and hands-on science workshops led by fantastic specialist presenters.

Based in Hull and covering up to 60 miles, Lab Rascals reaches over 25,000 children and adults every year. Each person attending Lab Rascals events has an interactive experience where new ideas and scientific interests can be explored or developed. We visit schools, youth groups, festivals and private events across Yorkshire and Lincolnshire. Over the years we have visited hundreds of places, met over 200,000 children and enjoyed every minute of it!

About our planetarium system

Lab Rascals Digistar lite system uses a customized version of Digistar 6, the world's leading digital planetarium system. The biggest and most important planetariums in the world use Digistar. Lab Rascals portable state of the art planetarium system is the only one of its kind within the north of the UK.



Lab Rascals portable system is a fully digital system which shows the planets, moons and stars in real time!

Our interactive planetarium shows are custom designed, developed and presented by our Astronomy Manager, Cosmic Carol. We don't play videos!

About our hands-on workshops

Our hands-on workshops took years of development to ensure they are just right to inspire children of all ages, genders and abilities. Many children love our hands-on workshop and choose to attend workshops during the holiday's too. All our workshops were designed and developed by us with a little help from the children. You won't find our well structured educational workshops anywhere else.



Our Planetarium Shows

Our Solar System (School Years 0-8) 45 minute show.

Let us take you on a journey through our solar system. From the sun at the centre of the solar system to Pluto in the Kuiper Belt. We'll learn a bit about each planet along the way and even visit some moons that you may not have seen before. This is a great general space show with lots of "wow" moments!

Stars (School Years 0- 4) 40 minute show.

What are stars? How are they born? Find out the answers to these questions and more in our Stars show. We'll look at the constellations and listen to some stories around them and fly through a nebula to look at newly forming stars. We'll also look at our own star, the sun, and learn how important it is to our planet, and all the other planets in our solar system. This show is particularly suited to younger children.

One Giant Leap ... (School Years 2 -8) 50 minute show.

This planetarium show will take you through the history of human spaceflight, from Neil, Buzz and Michael's adventures to the moon, to Elon Musk's dreams of exploring Mars. Would you like to be the first person to land on Mars?

New - Space Volcanoes (School Years 2-6) 35 minute show.

Volcanoes are one of the most impressive natural phenomena on Earth. But they're not just found on Earth. Volcanoes are found on other planets and moons in our solar system too! This planetarium show takes you on a journey through the volcanoes of our solar system, from lava erupting volcanoes on Earth to the ice volcanoes of Pluto!

New - The Red Planet (School Years 2-6) 35 minute show.

Mars has always fascinated humans. From early observations of this red planet, predicting a world of aliens and canals, to its depiction in science fiction, to our current observations of Mars using Mars rovers. Come and explore this fascinating planet!

New - What is Light? (School Years 2-6) 50 minute show.

Discover the energy waves of light from the sun, electrical bulbs and fire. Observe rainbows, prisms, refraction, colour mixing, fireworks and photosensitive materials.

Planetarium shows can be changed throughout the day to suit the audience. Excluding What is Light?

Our Hands-on Science Workshops

The States of Matter (School Years 0- 8) 30 or 50 minute workshop.

Exciting hands-on dry ice experiments and “wow “ factor demos. Explore solids, liquids and gases, evaporating, condensing, melting, sublimation and freezing.

Dry Ice Volcanoes (School Years 0-6) 50 minute workshop.

These volcanoes are amazing. They rumble before erupting to simulate an earthquake, produce a large gas cloud and lava. Discover plate tectonics, earthquakes, volcanoes and natural disasters.

Polymers (School Years 0-6) 30 or 50 minute workshop.

Explore polymers, which are found everywhere, from our food, clothes and even slime. Experiment with material properties, man-made & natural materials and create new materials.

DNA (School Years 4-8) 50 minute workshop.

Discover the code for all living life by making models and extracting DNA. Create an understanding of genetic coding, chromosomes, inheritance and defects.

New - Acids & Alkali's (School Years 2-6) 50 minute workshop.

Explore acids and alkali's by making bath bombs. Observe how pH indicators work and how some acids and alkalis react together to produce a gas.

New - Lego Wind Energy (School Years 5-8) full morning workshop.

Discover how a wind turbine works by constructing a working model. Charge a battery to power a car and record scientific data. Learn the importance of wind energy and how the industry has grow over the past several years.



Special educational needs

We want to stimulate curiosity in science for all, regardless of age, gender, background or ability.

All our planetarium shows and hands-on workshops can be adapted to suit your audience. Let us know more about your group when you get in contact, and we can suggest what we find works best.

Feedback

Miss Nicholson *“Thank you once again for your visit to Coomb Briggs Primary School this morning. The children thoroughly enjoyed the experience and took a lot of new knowledge and learning from it - all whilst having fun! The session was well prepared and planned for, and your staff were encouraging and supportive of all children.”*

Mrs Abbs *“I just wanted to say thank you to Carol and Anita for a brilliant slime workshop. Our children loved it - we are still getting some positive feedback from parents.*

Miss Carpenter *“You came into our school (Rivelin Primary School, Sheffield) last year and held the extraction of DNA from a banana which we thought was fantastic and know the children got so much out of it. Are you available to return this year?”*

Mr Smith *“Wow today’s shows were absolutely incredible. Carol handled lots of questions extremely well and differentiated between the year groups marvellously. All the kids had a brilliant time, as did I! Can’t wait to have you in again next year!*



Requirements

Planetarium

- ⇒ A large, indoor space with a smooth, clean floor area of 6 by 7m and a clear ceiling height of 3.5m .
- ⇒ Access to mains power.
- ⇒ A maximum of 25 secondary or up to 30 primary-aged children plus two teachers.
- ⇒ 30 minutes set up and 30 minutes pack away time.
- ⇒ No steps or stairs unless a lift is available.

Hands-on workshops

- ⇒ Tables.
- ⇒ Access to a wash sink & mains power.
- ⇒ A maximum of 30 children.
- ⇒ 30 minutes set up and 30 minutes pack away time.
- ⇒ 10-15 minutes change over time between sessions.
- ⇒ No steps or stairs unless a lift is available.

Contact Us!

E: labrascals@gmail.com Tel: 07825 285155

Find us on: Facebook & Twitter

www.labrascals.co.uk



Planetarium Prices:

Half day - £295

Additional session - £85

Full day - £525

Single show - £150

Hands-on Workshop Prices:

Half day - £325

Additional identical workshop - £85

Full day - £595

Single workshop - £150

Wind energy half day workshop - £295

All prices exclude VAT and travel expenses.

How to make a booking!

Bookings can be made directly online via www.labrascals.co.uk. If booking more than one session please select a half day or full day booking options.

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