# Planning for a Kielder Observatory School Visit

As part of the North of Tyne Combined Authority project, a visit from the Kielder Observatory Education team will involve 2 experienced astronomers attending your school to run planetarium shows and workshops of your choice. They will be attending your school for 4 full days (Monday – Thursday) in your booked week. The aim is to be as flexible as possible to suit the needs of your specific school, however for our visits to run smoothly we do have a few requirements prior to/during our visit.

As part of this project, we will be providing your school with an astronomy kit (including a telescope and related materials) as well as access to a bespoke educational website. A following visit to your school will be arranged to provide training in making the most of the provided resources.


## Before the Visit

A nominated member of the school science staff will be required as a contact to liaise with. This will be for both before and after the visit to maintain a continued relationship between Kielder Observatory and your school.

As part of this project with the North of Tyne Combined Authority, we will be required to record statistics and receive feedback from our visits. As such, you will have received a Word document feedback form. We would appreciate your co-operation in ensuring this is filled out. This document also includes forms for your feeder school(s) that attend our visit to fill in. To assess the impact of our sessions, you will have also received a pdf document called “3 Words Astronomy”. The intention is for pupils from multiple classes/year groups to fill these in prior to our visit, and then again following our sessions. If you could distribute these to your feeder schools as well, it would be much appreciated.

### Timetable

To assist in the preparation for our school visit, it is requested that a schedule detailing the session durations, chosen workshops, group sizes and year groups is provided at least a week prior to the visit. However, this would ideally be available as soon as possible to ensure proper planning and allow us to flag up any issues that may appear.

Since this project is aimed at all ages from KS1-KS5, it is required that at least 25% of our delivery time (at least one day’s worth of workshops) is delivered to primary aged pupils from your local feeder schools. It is encouraged to invite as many of your feeder schools as possible so that our visit can be made the most of.

To fit with the normal school day, sessions with each group/class are usually 50-60 minutes long. Due to limitations on capacity of the planetarium, and the desire to deliver as much science education as possible during our visit, this is often running alongside another activity which will be delivered to suit the ability of the individual groups.

An example timetable for a single day is below. We are happy to try and fit around your regular school day as much as possible, however please note that for certain activities there may be a requirement for additional time for setup/clean-up. We are also more than happy to cater to longer/shorter/additional sessions for individual classes such as with the Year 6 class in the below example.

|  |  |  |
| --- | --- | --- |
| **Time** | **Group 1** | **Group 2** |
| 08:00 – 09:00 | **Arrival & Setup** |
| **Year 7 (28 pupils)** |
| 09:00 – 09:25 | Meteorites | Planetarium |
| 09:30 – 09:55 | Planetarium | Meteorites |
| **Year 10 (29 pupils)** |
| 10:05 – 10:30 | EM Spectrum | Planetarium |
| 10:35 – 11:00 | Planetarium | EM Spectrum |
| **Break** |
| **Year 9 (26 pupils)** |
| 11:15 – 11:40 | Meteorites | Planetarium |
| 11:45 – 12:10 | Planetarium | Meteorites |
| **Lunch** |
| **Year 6 (28 pupils)** |
| 13:00 – 13:30 | Planetarium |
| 13:35 – 13:55 |  “Investigating Light” Workshop |
| 14:00 – 14:20 | Space Rocks |
| 14:20 – 15:00 | Rockets Workshop |

It is recommended to have a separate staff timetable to ensure there is school staff supervision during each session.

## During the Visit

### Planetarium

The primary aspect of the Kielder Observatory Education school programme is the use of our portable planetarium. Inside the inflatable dome, the stunning night skies of Kielder Observatory can be brought into your school hall.

A 9m x 9m space is required to contain the dome, with the ceiling at least 4m high. The dome can only be used indoors; this is often within a school hall or sports hall. Please ensure no other activities are taking place in the same space during the planetarium sessions. The dome takes approximately 45-60 minutes to assemble and 30-45 minutes to disassemble so please take this into consideration when planning the day. Once setup, the planetarium cannot be deflated and re-inflated in the same day. At the end of each school day, the planetarium will be deflated and will need to be left in a room/storage space that will remain locked until the following morning. Ideally, the planetarium would be remaining in the same room throughout the week, however we appreciate this sometimes may not be possible and if required the planetarium can be relocated between rooms before/after each school day. Confirmation that the school’s insurance will cover the planetarium and all associated equipment overnight will be required. We estimate the maximum value would be no higher than £30,000.

During planetarium sessions, supervision from a school staff member will be required inside the dome at all times. A standard risk assessment will be provided for the planetarium; however, both the host and feeder schools will be required to conduct their own risk assessments for the visit.

Due to the limited size of the planetarium, there is a strict capacity limited. This varies depending on the age of the school groups. During a single session, the planetarium can fit up to 30 primary school children, 25 KS3 students or 20 KS4/5 students.

### Additional Workshops

A variety of additional workshops that we are able to offer are detailed in a separate document titled “Kielder Observatory Additional Workshops”. Although requirements for specific workshops will vary slightly, the main necessity for these is suitable space to run them in. A classroom as close to where to planetarium will be situated as possible would be ideal, in particular to reduce changeover time if running parallel sessions.

These additional workshops usually run parallel to planetarium sessions (by splitting classes into two groups), due to the limited capacity of the planetarium. However, this method also allows a better astronomer to student ratio so that individual classes will be able to gain more from the sessions with smaller group sizes.

## After the Visit

Following our visit, it would be much appreciated if you were to ensure the provided feedback forms for both yourself (host school) and your feeder schools are filled in and sent through to us as soon as possible.

As mentioned above, part of this programme also involves providing your school with an astronomy kit (including a telescope) and access to an educational website. In the following weeks, an additional visit to your school will be arranged for one of our astronomers to provide training on using this equipment and accessing the website.

## Pre-visit Checklist

Invite feeder schools [ ]

Allocate suitable space for planetarium (9m x 9m x 4m required) [ ]

Timetable prepared & sent through [ ]

Return signed risk assessment [ ]

Run the “Which Words” activity with multiple classes [ ]

If you have any questions at all, or need to get in contact for any of the above points, don’t hesitate to email admin@kielderobservatory.org

**Kielder Observatory Astronomical Society**

**Revised September 2019**

**Method Statement**

Kielder Observatory Astronomical Society (KOAS) provides portable planetarium experiences to the general public, schools, businesses and private individuals (The Hirer) across the UK. The digital mobile planetarium dome is approximately 7m in diameter and requires a minimum area of 9m x 9m on plan with 4m height clearance.

The Hirer should identify a main point of contact for the initial contact on arrival and for any issues that may arise during the course of the visit.

Setting up the dome takes approximately 45 minutes from arrival and clearing away is complete within 30 minutes.

Hirers should note that if dome activities are not possible due to control measures required by this document, and of which The Hirer has been notified, then a refund will not be offered.

**Accommodation required:**

The mobile planetarium needs to be sited indoors in a quiet, well-lit and clean environment. Flooring needs to be cleaned prior to arrival/setup and also needs to be solid and un-raised. Access to at least one double power socket to power the fan, laptop, projector and sound system. The area around the dome must be cordoned off from anyone passing by.

The dome can be quickly evacuated in an emergency. On arrival, The Hirer is to advise the KOAS staff member of the location of the closest fire exits to the dome.

**Access requirements:**

The packed-up dome is very heavy and is moved by KOAS staff. There must be step-free and/or near-level access between the vehicle and the area where the dome will be set up. Parking for a medium-sized vehicle (small Transit Van or estate car) close by is required for unloading/reloading the equipment, again offering step-free access.

KOAS must be notified in advance if there are any issues with regards access and especially if there are any steps or tight corners to negotiate. If there are any special requirements with regards to visitors or staff members then The Hirer is expected to advise KOAS in advance.

**Dome capacity:**

This planetarium seats up to 30 primary aged children, 25 KS3 students, 20 KS4/5 students, 15 adults or up to 10 wheelchair users (dependent on size of wheelchair). Should the Hirer have a mix of audiences then please contact KOAS to discuss.

This information is meant to be indicative only and KOAS staff would be pleased to discuss any particular requirements or concerns in advance or at the time of arrival.

Kielder Observatory Astronomical Society, Unit C Bewick, Prestwick Park, Northumberland. NE20 9SJ.

Tel no 0191 265 5510

Registered charity no 1153570

**7m Mobile Planetarium**

**Risk scorecard**

Likelihood: Injury: Risk level:

1 = very rare 1 = trivial Low

2 = rare 2 = minor Moderate

3 = occasional 3 = 1-3day off work High (unacceptable)

4 = likely 4 = 3+ day off work/long term

5 = certain 5 = death

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Hazard** | **Who might be harmed and how** | **Likelihood** | **Injury** | **Risk** | **Control measure** | **Further action** | **Responsibility** |
| Slips or trips | Visitors, host or KOAS staffStrains, sprains or impact injuries | 3 | 2 | Low | Minimise loose cables (tape to floor where required) and planetarium to be positioned to minimise the access / travel distances. The Hall where the planetarium is contained to be restricted as far as practical to the use for the planetarium. KOAS Staff and The Hirer’s reps to take responsibility for access and egress via the airlock and to closely monitor the step over as directed. |  | KOAS / The Hirer |
| Power cut | Visitors, host or KOAS staffDome deflates and Lighting fails | 2 | 1 | Low | Dome to be sited in a location with emergency lighting as far as practical and access to emergency lights. Presenters are all trained in safe and calm evacuation procedure and KOAS staff will stay with the planetarium once fully evacuated unless directed by the Hirer’s H & S / Fire rep. Battery powered torches will be available as required. |  |  |
| Fire | Visitors, host or KOAS staffSmoke inhalation / burns | 1 | 3 | Low | Presenter to ensure dome is not too close to light fittings or other potentially hazardous situationAll electrical equipment to be PAT tested. Presenter to check all equipment on set up before any visitors arrive. Presenter aware of nearest fire exits.The Hirer to take responsibility for safe evacuation after leaving the dome and to comply with local fire regs.The Hirer to train KOAS staff if/as required |  | KOAS / The Hirer |
| Laser pointer | Directed into eye, damage to eye especially if taken by child | 1 | 1 | Low | Only pointers with Class 2 laser up to 1mW to be used. Presenter to have pointer about their person when not in use. Presenter to advise The Hirer if theft occurs |  | KOAS |
| Violence or threats of violence | Visitors, host or KOAS staffInjury or distress from feelings of physical threat. Damage to dome and/or equipment | 1 | 4 | Low | Access to dome not allowed for anyone under the influence of alcohol or drugs. Groups with known behavioural problems to be supervised by staff at all times. Visitors not to be left unsupervised inside the dome. Presenter trained to quickly evacuate the dome if required. Children are to be accompanied by supervisor whilst in the dome. Presenter to have discretion to suspend the presentation if they deem the visitors are not safe. |  | KOAS / The Hirer |
| Enclosed space / unusual environment | Visitors, host or KOAS staffFeelings of claustrophobia / panic | 1 | 2 | Low | Visitors not to be unsupervised inside the domePresenter trained to recognise potential. Dome design enable quick egress if required. |  | KOAS |
| Theft / damage to dome | Financial. The Hirer is responsible for any damage to the dome or equipment due to their negligence. KOAS responsible for reasonable wear and tear | 2 | N/A | N/A | Dome and equipment supervised with controlled entry to area when not in use as far as practicable. The Hirer to advise visitors not to touch equipment or interfere with the dome. The Hirer to discuss with KOAS whether visitors with special needs are able to use the dome. KOAS holds insurance for the dome and equipment. PLEASE NOTE: The Hirer is responsible for providing insurance cover for all equipment whilst stored overnight on the Hirer’s premises to the value of £30,000 - as outlined in the provided ‘Planning’ document. |  | The Hirer / KOAS |
| Movement of the dome | Visitors, host or KOAS staff | 1 | 3 | Low | Care taken when equipment being transported and KOAS staff to seek assistance for The Hirer if any existing fittings and fixtures need to be repositioned. Provide safe and unrestricted access from the dome location to the KOAS vehicle. |  | KOAS / The Hirer |

**Audience conduct**

Visitors under the age of 16 or vulnerable adults must be supervised at all times and we expect that audiences:

Do not run in the area around the planetarium

Do not eat or drink near or inside the planetarium

Take care and receive instruction when entering/exiting and inside the planetarium

Do not touch the delicate fabric of the dome or any other equipment

Pay attention to KOAS staff, treat them with respect and follow instruction.

The information contained in this document has been communicated to all KOAS staff and all control measures will be implemented to ensure that the event holds a minimum risk. We are regularly reviewing the risk assessment and any feedback would be gratefully received to enable us to improve and refine our events.

Signed ……………………………….

Name ………………………………..

On behalf of The Hirer

The name of the organisation ……………………………

Signed ……………………………….

Name …………………………………

On behalf of KOAS

Date ………………………………………