Lower-Elementary Starlab

A Museum of Science Traveling Program
Description

Lower-Elementary Starlab consists of a hands-on activity and a 40-minute immersive presentation inside an inflatable planetarium.
NGSS Connections

• 1-ESS1-1: Use observations of the sun, moon, and stars to describe that each appears to rise in one part of the sky, appears to move across the sky, and appears to set.
NGSS Scientific and Engineering Practices

- Asking questions and defining problems.
- Planning and carrying out investigations.
- Developing and using models.
- Constructing explanations and designing solutions.
Needs

We bring all materials and equipment. Access to 110-volt electricity is required.
Space Requirements

A planetarium fits in an accessible room with at least 25´ by 25´ of open space and 11´ of vertical clearance; all sessions are taught in that room.
Goals: Scientific Tools

The program begins with a 10-minute activity where inflatable planets are observed both with the eyes and with binoculars.
Goals: Scientific Tools

Students learn how more details can be observed with scientific tools and record their observations on data sheets.
Goals: Day and Night

The rest of the program takes place in the planetarium, where the students experience a simulated sunset and learn how the Earth’s motion causes changes in the sky’s appearance.
Goals: Planets and the Moon

Building on the activity, the students learn about visible bodies like the Moon and planets, and compare their small naked eye appearance to the view from telescopes and space probes.
Goals: Stars

The students learn, similarly, that stars are much larger than they look in our sky due to their extreme distance, and come in different colors and brightnesses.
Goals: Constellations

We also teach how stars have been grouped into patterns by many cultures, and show and share some related myths and stories.
Additional Content

In addition to these core goals, other concepts are taught depending on the time of year and teacher requests.
Program Details

• Can be booked for school groups.

• Appropriate for kindergarten, first, or second grade students studying astronomy.

• A 40-minute introductory version is available for mixed K-second grade reservations.
Program Details

• Capacity is one class (25 students) per session.
• Up to four sessions can be taught per day by a single educator with one planetarium.
Program Details

• Large schools can book up to eight sessions per day.
• Two educators teach simultaneously in twin planetariums, either in different rooms or a single large Gym.
Social Story

If any students need extra preparation for out of the ordinary activities, we can provide a social story PDF highlighting what happens during Starlab presentations.
## 2017 – 2018 Prices

<table>
<thead>
<tr>
<th>Sessions per Day</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Session</td>
<td>$400</td>
</tr>
<tr>
<td>2 Sessions</td>
<td>$475</td>
</tr>
<tr>
<td>3 Sessions</td>
<td>$550</td>
</tr>
<tr>
<td>4 Sessions</td>
<td>$625</td>
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</tbody>
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Modest mileage fees are charged for sites more than 30 miles away.
## 2017 – 2018 Prices

<table>
<thead>
<tr>
<th>Sessions per Day</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Sessions*</td>
<td>$700</td>
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<tr>
<td>6 Sessions*</td>
<td>$775</td>
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<tr>
<td>7 Sessions*</td>
<td>$850</td>
</tr>
<tr>
<td>8 Sessions*</td>
<td>$925</td>
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</tbody>
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*Requires two teaching spaces (or one very large one) for twin planetariums.

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For information/reservations:
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