

SESSION 4: PLANNING OBSERVATIONS

The instructions here are for downloading the Stellarium software and also include additional options for the setup of Stellarium.

*Stellarium is free, open-source software and runs on most computers (Windows, Mac, Linux). It is available to download from stellarium.org

There is also a web-based version, but that works slightly differently from the main software and so is not ideal for this activity. Smartphone and tablet apps are also available, but these are not always free.

The student instructions can be found in the 'Session 4 - Planning Observations.pdf' available to download from our website: www.schoolsobservatory.org/stem-club

Each group will require the following:

REQUIRED RESOURCES

☆ Stellarium software*

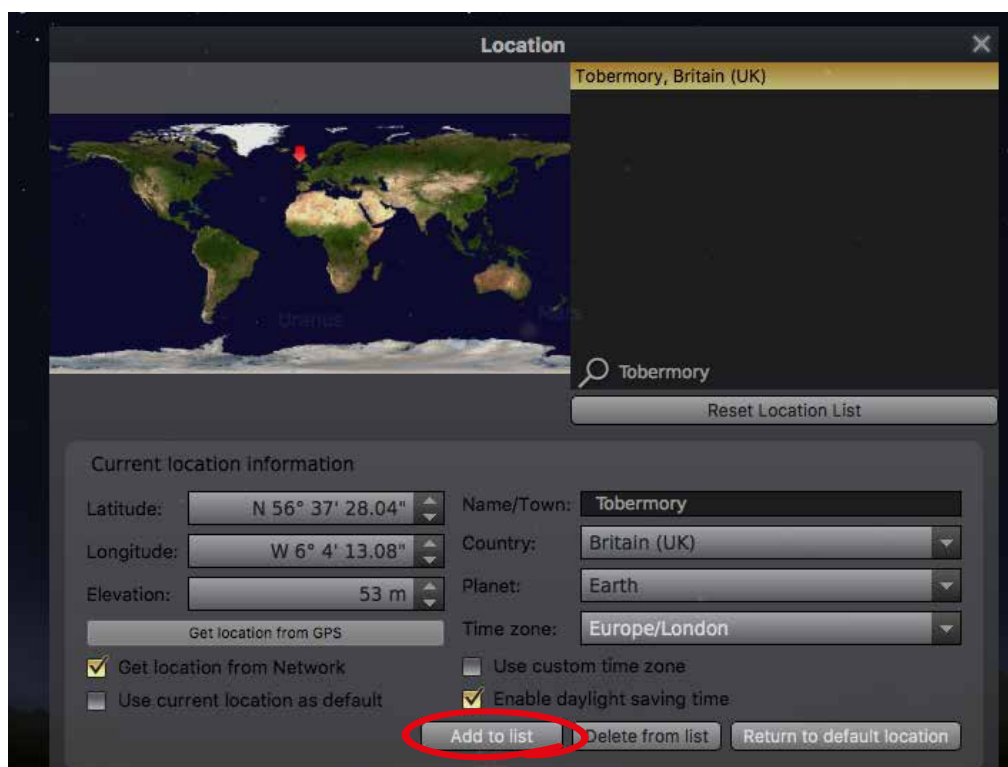
☆ Access to computers

You may find it useful to play with Stellarium before the session to familiarise yourself with the software. Further settings for Stellarium are included below.

SETTING THE LOCATION

Stellarium includes a list of most of the major cities and observatories in the world. You may find your location is not included. To keep it simple, you can choose the nearest city to where you are. This won't make much difference to the objects you will see in the sky but it may change the level of light pollution that the software simulates. To be more exact, you may want to add your own location to the list.

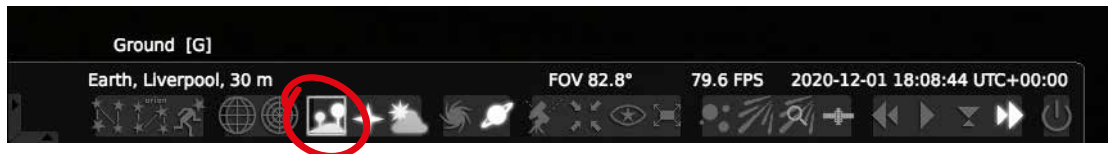
If you bring up the Location Window from the left-hand menu, you can add the name, latitude, longitude and altitude of any location. The image below shows Tobermory on the Isle of Mull being added. Remember to click on the 'Add to list' button to save it.



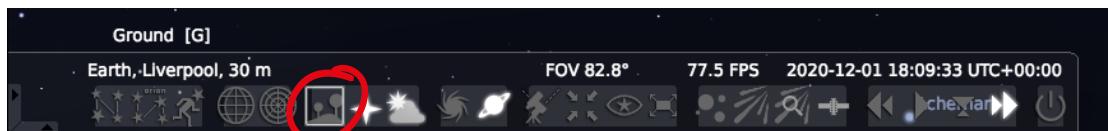
GROUND ON/OFF

Using the icon in the bottom menu, the ground can be made invisible.

On:

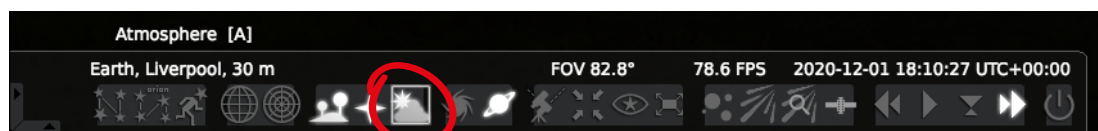


Off:



ATMOSPHERE ON/OFF

Similarly, the effect of the atmosphere can be removed or added back:



On:



Off:



COORDINATE GRIDS

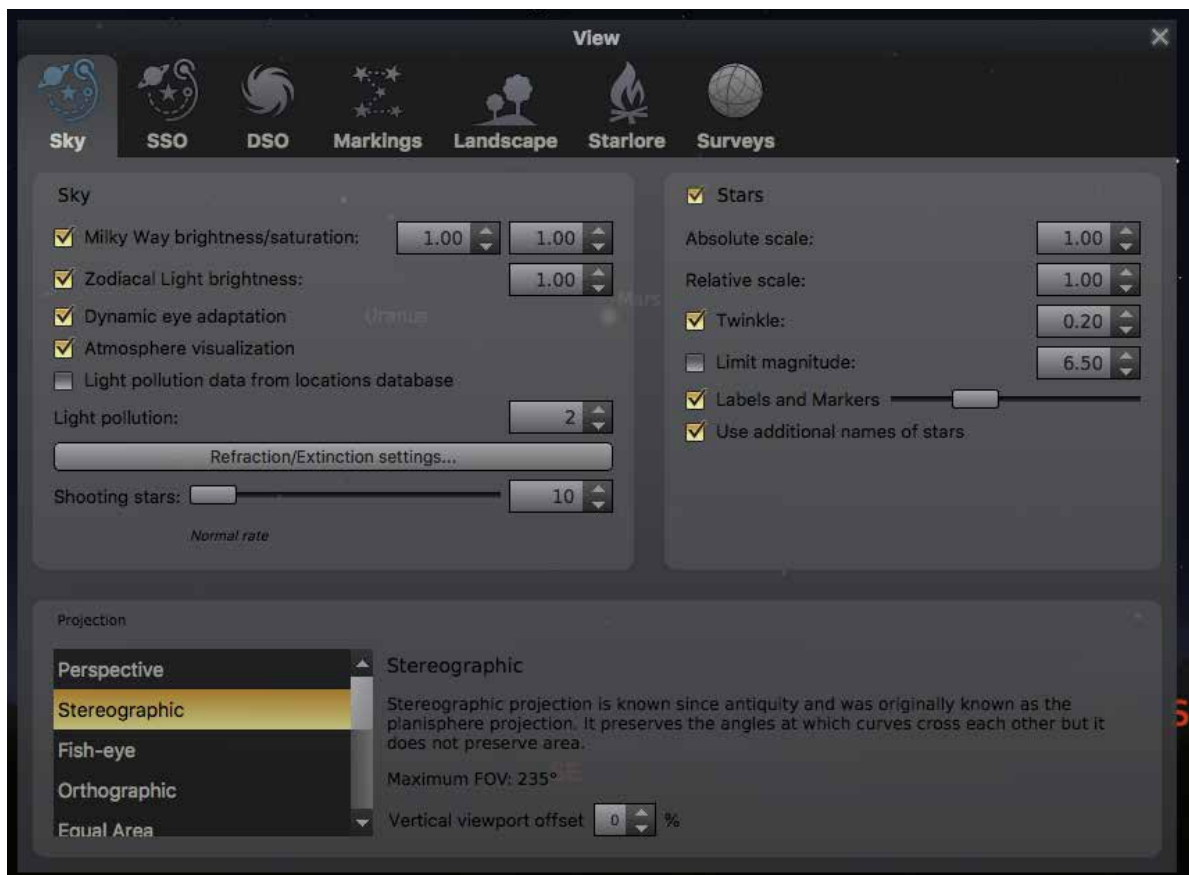
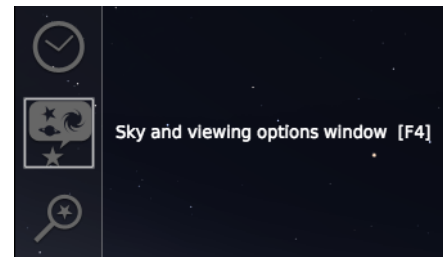
Several coordinate grids can be overlaid on the sky. For planning observations, the most useful is the Altitude/Azimuth grid:



ADVANCED VIEWING OPTIONS

If you want to really explore the simulation of the sky, there are advanced viewing options you can bring up from the left-hand menu:

Of these, perhaps the most useful for planning is to experiment with the effect of different levels of light pollution.



EXPERIMENT!

As you can probably see, there are many other options in Stellarium from showing constellations to simulating shooting stars - far more than any single workshop can cover. The best way to find the most useful options for you and your students is to explore and play.

