

Astrokyds Planisphere - From the LAS

The Astrokyds Planisphere enables you to see what constellations are in the sky on any evening in the year. It is light, easy to use, easy to carry, requires no battery and you can build it yourself for free. All you need is a printer, some paper, some thin card, glue and a craft knife or sharp scissors.

Assembly Instructions

The planisphere is built from 3 sheets of card: Front Sheet, Back Sheet and Sky Disc. There are links to 3 files below, each of which has the image to be printed on one of these sheets of card. Click on each link in turn. You can then either print the image directly or save the file for use later.

You can either print the details direct onto the card or print the details onto paper and stick it to a piece of card. The best way is to print the details onto white or cream coloured A4 card. 160 GSM card works well. Most printers will handle this but do check that your printer will do so before trying to print on card. If you do not have thin white card to hand then you can use heavy photo-print paper. Alternatively print the details onto white paper and then stick it to some card.

NOTE: The 3 files must be printed to exactly the same size, otherwise the bits will not fit together. If your printer is set to "Size to Fit", "Reduce to Fit", "Reduce/Enlarge Document", or any other option that changes the print size then please deselect this option. For the fine details to be easily read it is best to use a good quality printer setting such as "High" or "Text and Image". You do not need to use photo quality settings though.

Follow the cutting and folding instructions below carefully. Accuracy is more important than speed if you want your planisphere to fit together properly.

Back Sheet -

Carefully cut around the outside, buff coloured, lines. When cutting the curve at the top, stay clear of the blue curve below. It is important to cut the side and bottom exactly along the buff coloured line otherwise the sky disc will not fit properly.

Sky Disc -

Cut carefully around the buff coloured line on the outside of the disc. Again, accuracy is important.

Front Sheet -

Cut out the horizon oval. Cut carefully along the buff line and remove the oval disc. This is the window through which you will see the constellations.

Cut around the curved time scale at the top of the sheet, carefully following the buff coloured line.

Cut along the straight buff coloured lines around the outside of the front sheet.

Using a straight edge, fold the three tabs backwards along the blue lines. Do this as accurately as you can.

Fold the three tabs around the back of the back sheet. Make sure the curved time scale at the top lines up with the blue curve on the back sheet. Glue the three tabs to the back of the back sheet.

When the glue has dried, insert the sky disc into the pouch formed by the front and back sheets. Make sure the sky disc fits all the way down into the pouch.

Instructions for Use

Find the time on the scale at the top of the front sheet. Note: the time scale reads backwards, 5 pm (17h) at the right to 1 am (01h) at the left. There is a marking for each hour and ticks for the half hours. If the clocks are set to summer time then subtract one hour from the clock time to get the time in GMT, as used by the planisphere.

Find the date on the sky disc. It may be easier to take the disc out to do this. Dates are marked every 5 days so you may have to estimate days in between. Insert the sky disc so that the current date lines up with the current time. The constellations on show are then visible in the oval window. To see their approximate positions hold the planisphere over your head and face south.

The planisphere is designed to be exactly right for the home of the LAS in Theydon Bois, Essex, just outside London. However the planisphere may be freely used anywhere in south east England. To the west, Astrokyds in Bristol will see the skies about 12 minutes later than those in Theydon Bois. Astrokyds in Barnstaple will see the skies 16 minutes later than those in Theydon Bois. Astrokyds in Amsterdam will see the skies 20 minutes earlier than those in Theydon Bois. Versions of the planisphere for use in other areas of Britain will be available at a later date.

Enjoy using your planisphere to help you find your way round the night sky.

Disclaimers and General Information

Star positions used in the generation of this planisphere are approximated. They are more than accurate enough for all direct visual use.

Some publications may show different patterns for some of the constellations. There are no right or wrong patterns. If you have a favourite publication you wish to use then please feel free to do so. You should still be able to use the planisphere to help you find the constellation.

An apparently spherical sky cannot be plotted exactly onto a flat sheet of card. This means some of the constellation shapes will appear distorted. Also directions will not be as expected, as can be seen by the odd positioning of the "east" and "west" markers on the front sheet. All planispheres plotted onto flat sheets will suffer similar distortions.

There is no "north" marked on the front sheet because north is in fact inside the horizon oval. It is very close to the end of the "handle" of Ursa Minor, where the straight pale grey lines cross. The star close to this crossing point is known as the pole star.

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