

THE THIRD AGE TRUST



THE UNIVERSITY OF THE THIRD AGE

# Astronomy

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## HOW TO START AN ASTRONOMY / SPACE EXPLORATION GROUP

This leaflet is aimed at U3As where there are members interested in Astronomy and/or Space Exploration but are not fortunate enough to have a knowledgeable leader/tutor who can take the class. This lack of a tutor need not be a deterrent as many groups throughout the country operate very successfully on a “workshop” basis.

However it is necessary to have one, or maybe two, members who will lead the group and decide on a programme which could be worked out beforehand or after consultation with the group at the first meeting. Size is not important, it maybe that only 3 or 4 people express an interest to start with, as almost certainly others will join later. If the group is very small, meeting in someone’s house maybe a good idea, at least in the beginning. If one of the group lives in a quiet spot away from too many lights, has a garden or open space nearby, this would allow the opportunity to view the night sky, even better if someone has a telescope or binoculars – weather permitting of course.

Astronomy is not only a vast subject but also an exciting one as new discoveries are constantly being made and with ever more sophisticated technologies, more again will be discovered in the future. While some groups spend as much time as possible stargazing, others spend most of the time researching and studying the many different aspects astronomy has to offer. If the group members decide they would like to study it is a good idea to choose a specific subject, starting perhaps with The History of Astronomy from prehistory to the “Big Bang”. Stonehenge, Aristotle, Hipparchus, Ptolemy, Copernicus, Galileo, Newton, Einstein, Hubble, Hoyle, Hawking etc. Or Basic Astronomy – The Celestial Sphere, the Constellations, the Sun, planets, the Ecliptic, Time measurement (a good opportunity for some group practical work constructing a simple working a model sundial from everyday items – some Astronomy books provide instructions). Another good starting point is the Moon then all or at least most of the group research various angles such as Apollo landings, the possible return of human landings (perhaps the first woman on the Moon), mountains and craters, motion relative to Earth, tidal effects etc.

There are very many ways of learning more, the local Library or bookshops, look out for “Observer’s Book of Astronomy”, Larousse “Pocket Guide”, Norton’s Star Atlas is a useful classic. The children’s section of the Library can be also be useful for beginners. The group may like buy or subscribe to one of the monthly magazines, Astronomy Now, Sky & Telescope, enquire at W.H.Smith’s or good newsagents. Keep a look out for TV or radio programmes, astronomy related subjects are sometimes dealt with and these programmes can also provide good material. Patrick Moore’s “Sky at Night” monthly TV slots are excellent, though due to the unsocialable time it maybe better to record. “Horizon” sometimes deals with astronomy and BBC4 also on occasions.

Another suggestion is to contact your local Astronomical Society. These exist all over the country and the Co-ordinator (see below) can supply a list or log on to [www.fedastro.org.uk](http://www.fedastro.org.uk). These societies are usually very willing to be of assistance and might be able to supply a speaker. They would certainly have open sessions and field meetings for viewing the night sky and definitely worth contacting. There is also

the British Astronomical Association which is open to everyone interested in the subject. Their address is/was: The B.A.A Burlington House, Piccadilly, London, W1V 0NL.

The internet of course has a vast number of sites, many universities have specialist sites (if reasonably near may supply speakers), the Open University has some good ones as do the astronomical magazines and journals, science museums, space agencies, NASA and ESA provide detailed information on space missions as well as data from the space telescopes. There are many children's websites, NASA has several and these, like the children's books, can be of assistance to those new to the subject. All the search engines will come up with a long list. *Astronomy Picture of the Day* not only shows some great pictures but some groups have found they spark off a discussion or a desire to learn more.

Excursions can be a fun way of learning and there are a number of Planetariums in various parts of the country also there is the National Space Centre at Leicester. Other places of interest are Jodrell Bank, Herstmonceux Observatory and Science Centre, the Science Museum in London, Greenwich Observatory (recently regenerated), Magna Science Centre in Sheffield as well as smaller places like the Herschell Museum in Bath. If you visit as a group it is very possible a talk or guided tour can be arranged, always worth enquiring.

If the group has a Laptop there a number of software programmes, "Redshift" for example is very popular, they advertise in Astronomy Now and other magazines, and don't forget if you have a projector, the U3A Resource Centre has slides and videos, contact Elizabeth Gibson at National Office for a list of items. Some long established Astronomy Groups have suitable material and can be contacted through the Co-ordinator.

Lastly, Space Exploration which can be studied as a separate subject or alongside astronomy. As mentioned earlier the websites are endless and there are specialist magazines and many books, particularly children's. Again as with astronomy there is much that can be researched.

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