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The Colours of Stars

A quick check will show that not all stars are the same colour. Try it some time. You'll be amazed. There are white stars – the colour most people expect stars to be for some reason – blue-whites, even some blue stars. Then there are yellow-whites, yellows, oranges and cherry reds. Even the odd purple, but no greens.

There is more to a star's colour than just pretty looks. Apart from the fact that it helps you tell stars apart, a star's colour reveals many things. It tells astronomers the star's temperature and is a clue to its age and expected life span. For example, our Sun is a yellow-white star, its temperature is 5,500oC and is about half way through its 10 billion-year life. Now there's a strange thing about star colours. The redder the star, the cooler and older it is. And the more white or blue, the hotter and younger the star is. Seems odd, doesn't it? But think of it this way. Imagine the dying red coals of a fire. Hot? Then imagine the intense blue point of a welding torch. VERY HOT! As an example, the red supergiant Antares , currently setting in Scorpius's spine, is only about 3,000o, compared to the blue-white Acrab (middle of the scorpion's head) which is up to 25,000o. So, stars can be big, small, young, old, hot or 'cool'. It's often fascinating to know which are which.

The Southern Cross has three blue-whites and one red star. Can you pick the difference? Astronomers have a sequence of letters to classify star colours and temperatures. From hottest to coolest, it goes: O, B, A, F, G, K, M, N. Acrab is Class B, our Sun is a G class star, while Antares is Class M.

To help them remember the correct sequence, they use a mnemonic "Oh Be A Fine Girl, Kiss Me Now". You guessed it. Most astronomers are men.