The Sun – an image in visible light taken by Big Bear Solar Observatory.

In visible light, our Sun appears uniformly bright, but touch the Sun's disc at three, eight and nine o'clock on its disc and you discover small regions called sunspots. These cooler regions appear dark and mark the locations of strong magnetic fields. The Sun is a ball of ionized gas, and the churning motion of the gas generates electric currents and magnetic fields. The number of sunspots tells you how active the sun is. More sunspots mean more magnetic activity, which increases the chance of solar storms.

The Sun – an image in ultraviolet light taken by the Solar and Heliospheric Observatory.

Ultraviolet light from the Sun originates from the hot upper atmosphere of the Sun, called the corona. Touch the ultraviolet image along the edge of the disk at two and ten o'clock. You can feel loops of magnetic fields, called prominences, rising above the disc and into the corona. Ionized gas is caught up and heated by magnetic fields generated around the sunspots you touched in the visible image. In ultraviolet light, the Sun appears dark except for the hotspots associated with the magnetic fields. Gas in the corona is very rarefied but very hot, with a temperature of more than a million degrees.

