Solar System As the Earth and other planets formed, the heavier elements fell to their centres. On planets close to the Sun . (Mercury, Venus, Earth and Mars) the lightest elements were mostly blown or boiled Our solar system away by radiation from the coalesced out of a newly formed Sun. On the giant cloud of gas and outer planets (Jupiter, Saturn, debris left in the wake Uranus and Neptune) the of exploding stars lighter elements still surround Stars condensed by gravity about five billion years them as deep atmospheres of out of clouds of molecules of ago. Everything in and gas or as frozen solid layers. the lightest elements until on the Earth, including nuclear fusion of the light living organisms, is elements into heavier ones made of this material. began to occur. Fusion released great amounts of energy over millions of years. Many chunks of rock orbit the Those that meet the Earth glow and disintegrate from friction as they plunge through the atmosphere—and sometimes impact the ground. The moon's orbit Other chunks of rock mixed around the Earth once with ice have long, off-centre in about 28 days orbits that carry them close to changes what part of Something can be the sun, where the sun's the moon is lighted by Eight planets of very different "seen" when light radiation (of light and particles) the sun and how much size, composition and surface Telescopes reveal that waves emitted or boils off frozen materials from of that part can be features move around the there are many more reflected by it their surfaces and pushes it seen from Earth-the sun in nearly circular orbits. stars in the night sky enter the eye. into a long, illuminated tail. phases of the moon. Some planets have a variety than are evident to the StarsWaves Phases of the mo of moons and even flat rings unaided eye, the of rock and ice particles surface of the moon orbiting around them. Some has many craters and of these planets and moons mountains, the Sun show evidence of geologic has dark spots and The motion of an object is activity. The Earth is orbited Jupiter and some other always judged with respect by one moon, many artificial planets have their own to some other object or point satellites and debris. moons. and so the idea of absolute Stars motion or rest is misleading. Day and night Phases of the moon The Earth is one of Gravity Laws of Motion several planets that orbit the sun, and the moon orbits around the Earth. Dav and night Planets change their ① Phases of the moon position against the Gravity background of stars. Telescopes magnify the The rotation of the Earth on appearance of some its axis every 24 hours distant objects in the sky, produces the night-and-day The patterns of stars in including the moon and cycle. This turning of the People can not determine the sky stay the same, the planets. The number how the solar system is put planet makes it seem as although they appear to of stars that can be seen though the sun, moon and together just by looking at it. move across the sky through telescopes is stars are orbiting around Gravity nightly, and different stars dramatically greater than the Earth once a day. can be seen in different can be seen by the Day and night seasons. unaided eye. Gravit Stars Gravity 🐧 Gravity 🜏 Stars Stars There are more stars in The moon looks a little the sky than anyone can Magnifiers help people see different every day but The sun can only be seen in the easily count but they are looks the same again things they could not see daytime but the moon can be not scattered evenly and about every four weeks. without them. seen sometimes at night, they are not all the same ① Phases of the moon sometimes during the day. The in brightness or colour. **Cell Functions** sun, moon and stars all appear Stars Cells & Organs to move slowly across the sky. Atoms & Molecules Gravity 🕙 Stars relative observations the planets telescopes phases motion of the moon of the sky