Changes in the Earth's Surface Scientific evidence implies that some rock near the The formation, weathering, Earth's surface is several sedimentation, and Farthquakes often occur along the billion years old. boundaries between colliding reformation of rock Natural Selection plates, and molten rock from below constitute a continuing "rock creates pressure that is released by cycle", in which the total volcanic eruptions, helping to build amount of material stavs the same as its forms change. up mountains. Under the ocean basins, molten rock may well up between separating plates to create new ocean floor. Volcanic activity along the ocean floor may form undersea mountains, which can thrust above the ocean's surface to become islands. Structure of the Earth Plate Tectonics Thousands of layers of Sedimentary rock buried deep enough may be reformed by pressure sedimentary rock confirm and heat, perhaps melting and the long history of the The interior of the Earth is recrystallising into different kinds of changing surface of the rock. These reformed rock layers may Earth and the changing hot. Heat flow and be forced up again to become land life forms whose remains movement of material within surface and even mountains. are found in successive the Earth cause earthquakes Subsequently, this new rock too will layers. The youngest and volcanic eruptions and erode. Rock bears evidence of the layers are not always create mountains and ocean minerals, temperatures and forces found on top, because of basins. Some changes in the Earth's that created it. folding, breaking and ① Structure of the Earth surface are abrupt (such as Plate Tectonics uplift of layers. earthquakes and volcanic eruptions) while other Sediments of sand and changes happen very slowly The Earth's surface is shaped in smaller particles (such as uplift and wearing part by the motion of water (sometimes containing the The Earth first formed down of mountains). (including ice) and wind over very remains of organisms) are in a molten state and Geological time long times, which act to level gradually buried and are then the surface Plate Tectonics mountain ranges. Rivers and There are many cooled into solid rock. cemented together by different land glacial ice carry off soil and break Plate Tectonics dissolved minerals to form forms on the down rock, eventually depositing solid rock again. Earth's surface the material in sediments or (such as carrying it in solution to the sea. Vibrations in materials set up coastlines, rivers, Geological time wavelike disturbances that spread mountains, deltas away from the source. Sound and and canyons). earthquake waves are examples. ① Structure of the Earth Plate Tectonics Waves Waves, wind, water, and ice Things on or near shape and reshape the Earth's the Earth are pulled land surface by eroding rock toward it by the and solid in some areas and earth's gravity. depositing them in other Gravity areas, sometimes in seasonal Rock is composed of different combinations of How fast things Things change in minerals. Smaller rocks move differs steady, repetitive, or come from the breakage greatly. Some irregular ways, or and weathering of things are so slow sometimes in more bedrock and larger rocks that their journey than one way at the Soil is made partly from takes a long time. same time. weathered rock, partly from plant remains, and also contains many living organisms. Chunks of rocks come in Some changes are so many sizes and shapes. slow or so fast that they from boulders to grains of are hard to see. sand and even smaller. Change is something that happens to many things. earthquakes and rates of weathering and rocks and volcanos change erosion sediments