

SCIENCE SCREEN REPORT

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1 *Nanotechnology: The Smaller The Better*

SCIENCE SCREEN REPORT explores the potential of an extraordinary new field, nanotechnology. Some scientists predict that in the 21st century, we'll have microscopic-sized robots manipulate atoms to produce any substance or product we desire, putting it together atom by atom, molecule by molecule. The scanning electron microscope and advances in miniaturization are putting scientists closer to making this futuristic dream reality. Running time: 15:33

2 *Neuroscience: Mind Over Movement*

The fourth in a special series about the human brain, this issue examines how the brain controls bodily movement - everything from balance, sleep paralysis, and simple actions like walking to complex athletic feats, speech and writing, and creative expression. Also featured are experiments to determine the factors that affect physical performance, and mental training techniques used by athletes, such as visualization and mental rehearsal. Running time: 15:20

3 *Environmental Science: Reclamation - Restoring the Land*

At the beginning of the 20th century, demand for minerals to supply rapid growth in manufacturing spurred the practice of strip mining in many parts of the world. After it had been stripped of its minerals, the land was often left barren and scarred, unable to sustain life. Now science is finding ways to correct the ecological mistakes of the past. SSR looks at new experiments in land reclamation, including bioremediation using plants and bacteria. Running time: 13:00

4 *Science in the Jungle Canopy*

Whatever their fields of interest, and wherever their laboratories, all scientists are explorers, following the same basic steps of the scientific method in their quest for answers. Scientists have long suspected the rain forests to be among the most biologically diverse places on earth, but they have also been among the most inaccessible. This issue shows how scientists are meeting the challenges of scientific investigation in the rain forests of Central and South America, and what they are learning about the biological diversity of the jungle canopy. Running time: 13:30

5 *Science Explores the Sun*

Ancient civilizations instinctively revered the sun, although they couldn't have known that their lives quite literally revolved around it. Earth's closest star is the tumultuous source of all the energy sustaining life on our planet. The scientific study of the sun was begun by Chinese astronomers more than 2000 years ago. SSR presents some of the bright new discoveries coming to us from some of the latest sun probes and experiments. Running time: 13:26

6 *Engineering: Keeping Us Out of Harm's Way*

Fabric, metal, plastic, tubing, and electronic circuitry cannot replicate the human body and mind, but they can spare it the risk of injury or worse in new product and safety testing, disaster and rescue training, and areas hazardous or inaccessible to humans. SSR looks at the growing use and development of human "substitutes," from passive devices like crash test and CPR dummies, to remotely operated robots endowed with artificial intelligence. Running time: 12:43

7/8 *Marine Biology: Coral Reefs - Seascapes of the Past*

Scientists are discovering much about our planet's past by examining coral drillings. From fossils, we know that reef-building corals have existed in the world's oceans at least 50 million years. Many kinds of reef organisms we see today existed millions of years ago, as well, and have changed very little. But reef systems that have survived hundreds, even thousands of years of natural stresses, have gone into decline in the past few decades. This double issue report investigates as it dives some of the world's oldest and most spectacular reefs. Running time: 25:08