

SCIENCE SCREEN REPORT

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1 Ecology: Amazon River Studied

At any time, 2/3 of all the earth's fresh water is contained in the world's largest river system, the Amazon. We follow the river's 4,000 mile sojourn from its birth in the Peruvian Andes to its melding with the waters 100 miles out into the Atlantic Ocean, and show the amazing abundance and variety of life supported within its diverse ecosystems. Running time: 14:59

2 Technology: NIST - America's Laboratory

This issue profiles the dynamic institute that has grown out of the Bureau of Standards, established by Congress in 1901 to formulate the standards and measurements American industry needed to expand more smoothly. Students learn what standards and measurements are, and how we depend upon them everyday. They'll visit NIST facilities where colleges and universities, government, and industry cooperate in research and development of innovative technologies, so that American industry "measures up" in world markets. Running time: 12:44

3 Genetic Engineering: The Plant That Grows Plastic

Genetic engineering is speeding up the process of developing and improving plant species. The rape seed plant, which has long been cultivated to provide oil for cooking, food, medicinal products, and even industrial use, has proven easy to manipulate genetically. Now plant breeders are engineering it to produce the more costly oils of rarer plants, and perhaps the most extraordinary crop yet - plastic! Running time: 14:39

4 Oceanography: Riches of the Sea

Although oceanographical research is virtually in its infancy, we have explored the oceans enough to discover they hold an abundance of potential resources, and support an incredible array of life forms in their various ecosystems. This program surveys the technologies we are using to explore the sea, and explains why scientists think the oceans could help supply the world's food, energy, minerals and pharmaceuticals in the 21st century. It also reveals the intricacies of marine ecosystems as it focuses on some of the sea's fascinating inhabitants. Running time: 15:14

5 Physiology: The Evolution of the Brain

This issue introduces a series of programs about the human brain. Watch the brain evolve from a bunch of nerve cells in sea creatures 500 million years ago, to its advancement in amphibians, reptiles and mammals. With the appearance of the first ape-man brain 5 million years ago, the development of the human brain accelerated, compared to other animals. Students will learn about the role of the wrinkled layer of the brain known as the cerebral cortex and examine how the brain develops as children grow. Running time: 14:18

6 Physiology: The Brain - Our Personal Computer

The second in a series of programs about the human brain, this issue introduces students to the brain's capabilities by comparing it to a computer. They'll learn how information travels among the brain's billions of cells, and how various areas of the brain control the body's functions. Some perhaps surprising findings of recent brain research are also featured. Running time: 13:48

7/8 Astronomy: Hubble - Gateway to the Universe

This double issue is dedicated to the Hubble Space Telescope, one of the most sophisticated scientific instruments ever made. Launched in 1990, its first images were disappointingly fuzzy, and the primary mirror was discovered to be flawed. A daring and fabulously successful repair mission corrected the problem in 1993. Today, the HST is thrilling astronomers as it extends our view to the distant universe, and our knowledge of the early cosmos. Following highlights of the space telescope's design, construction, launch, and the repair mission, we present a gallery of the HST's unprecedented images, and tell how astronomers are interpreting them. Running time: 23:31