

Grand Forks Herald
 1/2/92
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you curl your toes in when you go to the beach is not minuscule shavings of rock. Instead, it's the skeletons of ancient plants and animals.

■ **Sunlight:** A square mile of sunlight weighs about three pounds. Sunlight has weight because it exerts pressure on anything it encounters.

■ **Human Genome Project** is the mammoth effort to identify and map the 100,000 individual genes within the 46 chromosomes of the human body. Knowing the sequence of the 3 billion pairs of the human genome DNA that contain our genetic heritage may one day allow researchers to diagnose and treat inherited diseases as well as currently incurable diseases such as cancer and AIDS.

■ **Pharmacology:** Researchers from Britain's Agricultural and Food Research Council and a company called Pharmaceutical Proteins have shown that cows endowed with foreign genes can manufacture pharmaceuticals in their milk. When bovine drug "pharms" are working full force, they'll eliminate the need for expensive drug factories.

■ **Population explosion:** The world supports more than 5 billion people. Because population growth is exponential, a staggering 10 billion people will share the planet's diminishing resources by the year 2025.

INSIDE DISCOVER

▶ New technology is sharpening up the fuzzy old X-ray. **Page 2C**

▶ Check the hot spots for ice fishing on area lakes. **Page 3C**

▶ Triumph motorcycles are back, but in name only — they've been completely redesigned. **Page 4C**

KNOWLEDGE

Science testing: Unfair?

By Gina Kolata
 New York Times

Every few years, a new study rolls out announcing once again that American students know less math and science than even students in the poorest countries. And every time, the reports result in a national orgy of self-flagellation and cries for new rounds of reform in American schools.

The latest comparison, conducted by the Educational Testing Service of Princeton, N.J., and involving 20 countries, will be reported on Feb. 3. The betting is that the United States will, as always, rank at or near the bottom.

But this time, a growing and vocal collection of revisionists has begun arguing that the comparisons are invalid.

The entire U.S. population, they contend, is consistently being compared with other countries' elites. No wonder Americans are found wanting.

These critics stress that they in no way mean they find nothing to improve in American schools. But, they say, it is disingenuous to use international comparisons to whip up the population to demand school reforms.

"The rankings of nations in international test comparisons are meaningless," said Dr. Iris Rotberg, a program administrator at the National Science Foundation who is on leave to work as a senior scientist at the RAND Corporation's Institute on Education and Training.

Dr. Harold Hodgkinson, the director of the Center for Demographic Policy in Washington and a former director of the National Institute of Education, said that the tests were flawed and not very helpful.

Dr. Daryl Chubin, a senior associate at the Congressional Office of Technology Assessment in Washington, said, "The international comparisons have been over-interpreted."

"In this country and in particular in this era of educational ferment, anyone who has new numbers will use them to champion an argument."

Proponents of the tests argue that the comparisons are useful benchmarks.

Par

By Darrel Koe
 Herald Staff Writer

ALBERT Big Island oasis of amid the

The conservationist, a and life-long Fre resident, urged c park so everyone beauty.

Situated among corn and soybean esque rolling hills marshes encompass park were formed glacier retreated 10,000 years ago. found within the moraines, a moraine esker — a winding gravel — located end. The esker was glacier melted, being streams within gravel were deposited resulted in the feature.

And as the glacier water filled the sin a moraine dam. The Lea Lake with a su 2,600 acres and a 2 First known as Fox renamed to honor Lea, a topographer area in 1835 with United States Drag nearby city also be

Within the park types of vegetation, northern hardwood land. The northern only found on name which was protected fires that created the prairie in much of the Long before the fi arrived more than a mans occupied the prairie and lake offered of food. The wooded shelter and fuel.

Johnson was an ar prehistoric Indian a 26,000-piece collect

Lowly

By Jim Dillon
 Cdx News Service

Engineers stronger, to aircraft might they seek in lowly beetle

Inside a high-tech Patterson Air Force Dayton, Ohio, scient high-powered micros deep inside the biosh