

SCHOOL AND YOUR CHILD

Biology Is Fascinating As Hair-Raising Show

By JOHN COREY

Biology, the study of life, is required for most pupils in the tenth grade. A few schools offer it to bright ninth-graders. Eight of ten high-schoolers take the course, usually their only science study. Only three take chemistry. Two take physics. Biology's purpose is to provide students with knowledge to better interpret and appreciate life around them, says Dr. F. Ray Derrick, chairman of the biology department of Appalachian State Teachers College. It can be as fascinating as any hair-raising television show.

Pupils go beyond the textbook in biology. Field trips and laboratory experiments verify theories read about. Representative species of the animal and plant world, some of which can be seen only through a microscope, are examined. Larger specimens are dissected in labs, with students actually probing the insides of animals organ by organ.

Biology courses usually begin with the simplest form of life and move step by step toward the complex.

The one-celled amoeba, for example, is one of the first animals studied. This microscopic organism has no eyes, legs, or mouth. In fact, it's a mere blob of grayish jelly. Yet the amoeba moves, ingests food, grows, and reproduces — it's certainly an animal.

And there's the euglena — both plant and animal. In light it lives as a green plant, in dark as an animal.

Advancing toward the more complex, the budding biology pupil takes apart the earthworm. Seeing its simple digestive system, the youngster is better able to understand the labyrinthine human digestive organs at a later stage in his studies, according to Dr. I. W. Carpenter, Jr., an associate professor of the biology department at Appalachian.

He then looks closely at the grasshopper, learning about appendages—arms and legs.

And the crayfish comes in for a laboratory breakdown, too.

Still being dissected in most biology labs is the traditional frog, whose internal parts are similar to the human's.

Advanced students even dissect foetal pigs and cats. "Porkies" are better than frogs because of their even greater similarity to human internal structure.

But each pig costs about \$2 and a cat \$9, so they're usually too expensive for high school instructional budgets. In fact, few lab specimens are cheap. Biological supply houses sell grasshoppers for about 15c each, frogs at 70c. This adds up, since every student dissects his own specimen.

Socrates said, "Know thyself."

In a way, biology offers the pupil this opportunity. After examining lower animals, he learns about his own body structure, its digestion of foods, respiration and excretion, blood and circulation, reproductive and nervous system.

Plants come in for detailed study, too. Plants make all life possible, since they indirectly provide food and oxygen.

Biology includes studies of heredity and evolution, enabling pupils to better understand how

they came to be the way they are.

Although biology subject matter remains relatively unchanged, a radically new approach to teaching it is being devised by leading scientists and teachers at the University of Colorado, where the American Institute of Biological Sciences has set up the Biological Sciences Curriculum Study.

Chairman of the study, largely financed by the National Science Foundation, is Dr. Bentley Glass of Johns Hopkins University. Its full-time director is Dr. Arnold B. Grobman of the University of Florida.

BSCS advocates that teachers now require students to learn biology more through application of the "scientific method" than by consulting books and memorizing definitions and explanations.

The scientific method is a classic procedure which establishes fact through experimentation. In short, the pupil following it doesn't accept a principle as true merely because the textbook or teacher said so.

He conducts his own experiments to find out. This "seeing for himself" enables him to better understand scientific principles. And they'll stick longer in his mind.

Knowledge and practice with the scientific process have excellent transfer value. Knowing how to separate fact from fiction helps one to face problems as an adult. He can vote more intelligently. He'll be less subject to prejudice.

To make this increased scientific practice possible, the new BSCS biology curriculum calls for laboratory "blocks" representing six weeks of work in the spring when the pupil has some foundation on which to build.

WOMEN SALESMEN

The number of women who do door-to-door selling is now up to 700,000.



FORSYTH COUNTY RECRUITERS recently visited the Appalachian State Teachers College campus to interview prospective teachers. Pictured, left to right, are Mary Joe Isaacs, supervisor of Winston-Salem schools; Monroe Johnson, principal of Waughtown Elementary School; Louise Shelton, director of guidance of Winston-Salem schools; Dr.

Ben Horton, chairman of ASTC department of education; and Tom Beach, principal of Moore Elementary School. Bob Randall, ASTC director of placement, said that the group represented both Forsyth county and Winston-Salem city schools with 43 elementary schools, 15 junior high schools and 10 high schools.—Larry Penley photo.

Farm Bureau News

By VERNE STRICKLAND
N. C. Farm Bureau Federation

Are farmers lonesome people? We don't know what a psychiatrist would say. But a rural sociologist would probably point out that farmers today have fewer neighbors than they had thirty years ago.

That sociologist would tell you that in 1930 about half of North Carolina's population lived on farms, but only 17.7 per cent of the people do today.

That's a cold fact. And that last figure applied when the 1960 census was taken. We've had three years of migration to urban areas since then. Let's not discuss the reason for it here, let's look at the repercussions—and one in particular. Let's fix our eye on the General Assembly of North Carolina.

In the century just past, the worthy legislators of that day pounded out some laws on representation. We are particularly interested in a couple of pro-

visions which still affect us today.

The first has to do with the Senate. It provides that following each census, senatorial districts will be adjusted so as to be pretty near even in population. It fixes the Senate at fifty members.

The second says that the House shall be reapportioned following each federal enumeration.

Now we have abided by about half of these rules. We leveled out the House in 1961 according to plan. But the Senate has not been redistricted since 1941. Why? Well, our representatives haven't been able to come to terms on this one since then.

There are a whole lot of reasons for this balking. But one shines a little brighter than the others. Look back up this column a few paragraphs and read that place again that says people are leaving the farms. This is just for emphasis and not be-

cause I thought you might forget. But those people are congregating in the cities.

Now, if we continue to set up representation in both Assembly houses on a population basis, you can bet your bottom dollar the farmer will be a lonesome guy. Not only will he be missing his neighbors, but he won't have anybody to shout for him in our new State House. Rural folks are fearful that a congregation of senators may someday rule the legislature from a few metropolitan areas in the State.

And it's possible.

We can borrow from Uncle Sam on this one. He has the Senate set up so each State is guaranteed two seats. Representation in the House is solely on the basis of population. This way the little guys don't get so badly trampled on by the big guys. And Senators don't wind up living next door to one another. It's something to think about.

Speeding is profitable only for the undertakers.

News Report From Washington

Washington, D. C. — Charles de Gaulle of France, like Adolph Hitler before him, was launched in world war and only succeeded in coming to power in a nation hopelessly confused and paralyzed. Because of his triumph, the Western world is divided today.

De Gaulle had a long wait—patiently holding on until the right moment. And once again the free world must pay the price of having a successful egotist-nationalist in firm control of an obedient and cowed people.

These are the realizations facing Washington today and which have been appreciated by some in the State Department since early in 1962. The latest ominous realization is that De Gaulle, heading the European Common Market if he can, intends to have a grand-scale trade war with the United States.

Moreover, he intends to push the United States out of Europe and favors a three-force world, not a two-force world composed of the free democracies of the West and Communism. He sees West Europe as his playground, while the United States and Russia would be other major forces in the world.

This grim prospect is now being faced by the Kennedy Administration. The question is what the United States can do about it. One of the first moves is President John Kennedy's visit to Italy and West Germany a few months hence.

Italy seems sufficiently alarmed by the De Gaulle threat. West Germany and its Chancellor particularly, have been De Gaulle's most noteworthy acquisition. Chancellor Konrad Adenauer was won over by De Gaulle at the same time he was embittered against Secretary of State Dean Rusk. This unfortunate fact is having grave consequences and could have even greater ones.

Adenauer in recent days has been doing a tightrope act, assuring majority sentiment in

side Germany that he, too, favors British entry into NATO, but he has said nothing to show how he could accomplish his end. And he alone could have forced President De Gaulle to retreat from his adamant position, blocking British entry, before he signed the Franco-German alliance in January. He did not do so.

The inescapable conclusion is that Adenauer is paying lip service only to those who desire a truly united Europe, including Britain and Scandinavia. He is giving advocates of real European union words, but not productive deeds.

Since France and Germany are the two key countries in Western Europe, the United States must win back West German allegiance, which was lost in the Rusk-Adenauer feud. President Kennedy will attempt to do this. Also, the United States feels its interests would be served if Adenauer stepped down. But the old man has said he would step aside only in the fall—and many think he will try to avoid resigning then.

Washington cannot intervene in German affairs to the extent that it delves into internal politics, but as long as Adenauer is captivated by De Gaulle, the goal of seeing Western Europe united remains unattainable.

The upcoming trade war between the ECM and the United States (which is certain if De Gaulle has his way) may also seriously affect the U. S. balance of payments battle. All in all, the picture in the foreign policy field is darker than it has been since the Korean War.

One of the results of the new situation might be reduced U. S. foreign aid (France has received more than any other country) and reduced U. S. military commitment in France and certain other West European countries. This would please De Gaulle, but it may cause shivers in West Germany, when U. S. military strength began moving out, leaving West Germany to

depend on France for protection against Russia.

This, in a nutshell, is seen as the U. S. trump card for use in the game with Adenauer. Should U. S. military forces threaten to leave, Adenauer's government is likely to fall. The French are not strong enough to take over the U. S. role in defense of the West and never will be.

Sales Increase Reported By Winn-Dixie

Winn-Dixie Stores, Inc., recorded a 7.40 percent increase in sales during the 32-week period ended February 9, compared with the corresponding period a year ago, it was announced.

The volume was \$506,927,942 compared with \$471,963,417 last year, an increase of \$34,944,525. For the four-week period ended February 9, sales were \$64,869,421 compared with \$60,956,893, an increase of \$3,932,528 or 6.5 percent over 1962.

An increase also was recorded for the 52-week period ended February 9, when sales totaled \$807,192,587 compared with \$766,001,229 last year, an increase of \$41,191,358 or 5.38 percent.

Winn-Dixie, which operates a number of supermarkets in the local area, now has 601 retail stores throughout the South compared with 547 units a year ago.

THE STRAIGHT LINE

Norwich, Conn. — Police took Napoleon Gendreau, 52, to headquarters after his car jumped the curb and hit a house.

He was propped against a wall and told to walk a straight white line on the floor.

"Can I do this tomorrow? I can do it much better in the morning," Gendreau told the police.

He was booked on a charge of drunken driving.

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Four kinds of sport—all super

Want to make spring come in a hurry? Just pick a new car with whatever you hanker for in performance and sporty trimmings—like bucket seats, 4-speed shift, lots of horses—and start driving it now. Chevy's got a lot of sport in four entirely different kinds of cars.

First, the Jet-smooth Impala Super Sport with your choice of 7 different engines that range up to 425 hp and that include the popular Turbo-Fire 409* with 340 hp for the ultimate in smooth, responsive driving in modern traffic. Optional equipment, including Comfortilt steering wheel* that adjusts to your convenience, makes it as super a sport as you'd like.

There's the Chevy II Nova, also available in an SS version. Special instrument cluster. Front buckets. All-vinyl trim. Distinctive SS identification. Fourteen-inch wheels and tires* with full wheel disks. Three-speed shift or Powerglide* with floor-mounted shift console.

Or the Corvair Monza Spyder with complete instrumentation, special identification, and an air-cooled Turbocharged Six.

And for a real wallop, see the stunning Corvette Sting Ray, winner of the "Car Life" 1963 Award for Engineering Excellence.

All told, four beautiful convertibles, four handsome coupes. You'll get a four-barrel kick just looking them over—and a whole lot more fun out of driving one!

*Optional at extra cost.



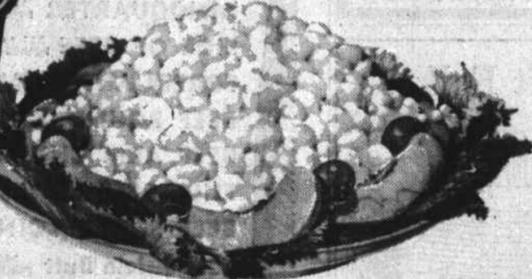
Top—Corvette Sting Ray Sport Coupe and Corvair Monza Spyder Club Coupe. Below—left, Chevrolet Impala SS Convertible; right, Chevy II Nova 100 SS Convertible. (All four available in both convertible and coupe models. Super Sport and Spyder equipment optional at extra cost.) See four entirely different kinds of cars at your Chevrolet dealer's Showroom.

ANDREWS CHEVROLET, INC.

North Depot St. Dealer License No. 1137 Boone, N. C.

Sealtest Creamed Cottage Cheese—Your All-Time Favorite!

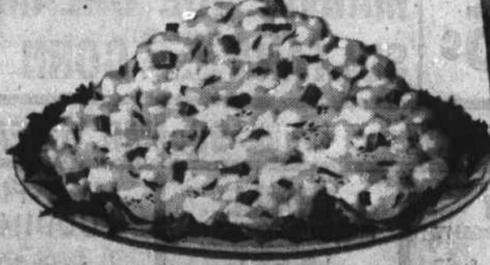
The original Sealtest Cottage Cheese; so popular, flavorful, nutritious. Goes with just about everything. Try dressing up all your meals this Lent with a generous portion of Sealtest Cottage Cheese.



Which Sealtest Cottage Cheese most tempts your taste?

Sealtest Spring Garden Salad—Cottage Cheese with Fresh Vegetables!

Pure, creamy-smooth Sealtest Cottage Cheese with your favorite young garden vegetables already mixed in. Ready to serve! Just spoon it on a plate of lettuce for a delicious Lenten salad!



SPECIAL OFFER!

Here's an exclusive 288-page cookbook from the Sealtest Kitchens. It's packed with wonderful food ideas. And Cottage Cheese is featured in 258 recipes. To get your copy, just send 25c in coin, and your name and address, to Sealtest Foods, P.O. Box 5023, St. Paul 4, Minnesota. Please allow 30 days for delivery.



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