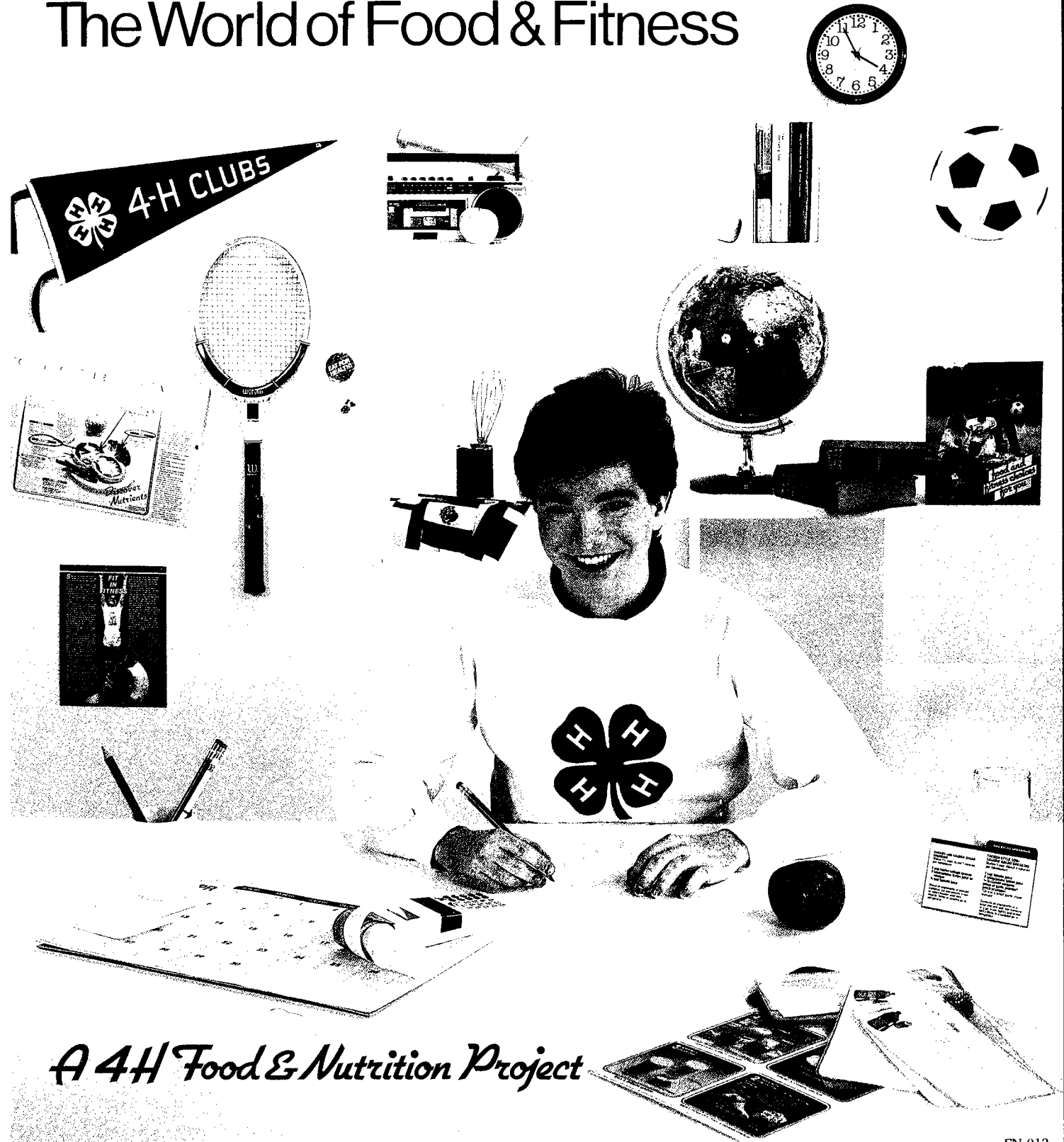


FIT IT ALL UNIT 3 TOGETHER

The World of Food & Fitness



A 4H Food & Nutrition Project

FIT IT ALL ^{UNIT 3} TOGETHER

The World of Food & Fitness

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What do you like to do?

Do you like to cook, or are you interested in reading the latest running magazine to learn about shin splints? Do you learn best from books, or do you like to talk to people and try things for yourself? Well, whatever your interests and style—have we got a project for you!

This project on food, nutrition and fitness will meet your needs and interests because you'll design it yourself. You'll set goals, plan activities and decide how your project can best be evaluated. That's why we call it a "self-determined project."

Learning how to make decisions, establish plans and then carry out those plans are skills you'll use throughout your adult life. Whether you become a homemaker or a heart surgeon, an astronaut or an agricultural researcher, you'll need skills in decision-making. This project is designed to help you acquire those skills.

As you read through this manual, you'll see that it includes information on a wide variety of subjects—everything from nutrition to our food supply, from fitness to food around the world. It covers such a wide variety of subjects to give you an idea of the range of topics you might choose for your self-determined project in "The World of Food and Fitness." Your project may include several subjects discussed in this manual, or it may be based on only one. The choice is up to you.

You can make several other choices as well:

- You can explore a single subject—like food safety. Or, you can choose a broader topic, like world hunger.
- You can select a project that requires a lot of research, such as finding out how the agricultural products grown in your region have changed during the past 25 years. Or, you can plan an action-oriented project, such as developing and carrying out your own nutrition and fitness plan.
- You can work on your project by yourself, or you can plan a project with other 4-H'ers.

Whatever project you select, you will be learning other skills as well—skills in setting goals, in making realistic plans to meet those goals and in evaluating your achievements.

To get started, follow these four steps. They'll help you **Fit It All Together** for a great 4-H project.

1

STEP : Make a Choice

Choose a topic that interests you. Read this manual for an overview of important topics in "The World of Food and Fitness." Note the subjects that most interest you. List 4-H food and nutrition projects you've enjoyed in the past. Think about other things you want to learn. The "Try It" sections throughout the manual suggest many different activities you might include—they should help you think of others.

On the back cover is the Project Planning and Evaluation Form. Use this form as you plan and carry out the four steps of your self-determined project. You may want to make a copy of the form and do your planning on that, especially if you think you might try more than one project from this manual. You may also want to make an enlarged version of the form so you'll have more space to write.

Complete Step 1, which includes questions you should ask yourself as you choose your project. You will also want to talk with parents, volunteer leaders and perhaps your

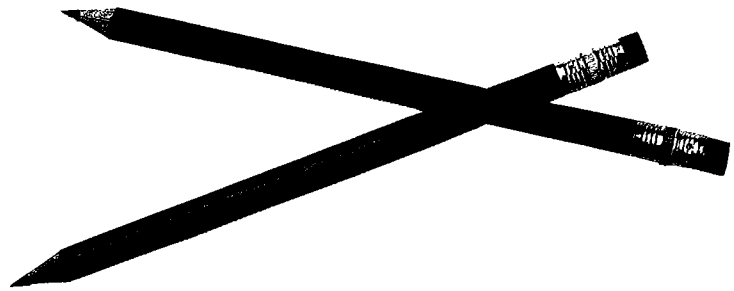
County Extension Agent. They can give you valuable advice.

This is the time to decide whether you want to plan an individual or a group project. You might consider two different ways of getting involved in group projects. In one, a group of 4-H'ers could plan and carry out their project together. This type of group project requires real cooperation, because everyone must reach agreement on how you carry out the project.

In another way you could work more informally. Find a group of friends who are doing individual projects based on this manual. Meet occasionally

- to share what you've learned
- to prepare a group meal demonstrating nutrition information you've researched
- to plan a culminating activity presenting information to your community or school.

Group support can keep you going. It provides incentive and fun.



2

STEP : Plan Your Project

Now start making your written plan—a skill you'll use throughout your life. Business people always write plans before starting any new project. They have learned, "If you fail to plan, you're planning to fail." Baseball star Yogi Berra put it another way: "You've got to be very careful if you don't know where you are going because you might not get there."

First, state your goal—a concise description of what you want to accomplish in this project. Write your goal in the space provided in Step 2 on the Planning and Evaluation Form. Answer the questions in Step 2 to determine what you

need to learn.

Even if your project is action-oriented, you need some information about your subject. Find it by reading books and magazines, interviewing resource people, attending meetings and visiting places, such as food manufacturers, research labs and hotel or restaurant kitchens.

Plan some activities. Examples are included in the "Try It" sections throughout the manual. Write your preliminary plan in Step 2 of the Planning and Evaluation Form.

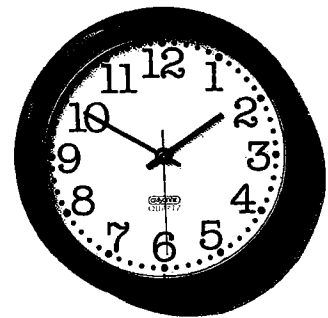
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STEP 3: Carry Out Your Project

Look over what you've written so far. Ask yourself:
 Have I outlined what I plan to do?
 How much time will this project take?
 Will I be able to do all the activities I've planned? Should I cut some out? (You want to stay interested throughout the whole project. Don't get bogged down because you planned something too elaborate.)
 How much will this project cost? Can I afford it? What other resources will I need?
 If this is a group project, can our group work together?

Review your preliminary plan with adults, volunteer leaders, parents and other 4-H'ers. Make any changes and write your final plan and timetable in the space provided on the Planning and Evaluation Form. Then sign an agreement to do the work with your 4-H leader, your parent or another adult.

Finally it's time to get started. Talk to resource people and ask for their help. Begin to work your plan. You're off and running—so have fun.



4

STEP 4: Evaluate Your Project

From your past experience in 4-H, you know the importance of keeping records. For this project, your records can be really exciting. They'll help you see your progress right before your eyes.

Ask yourself these questions in determining the kinds of records to keep:

- How can I show the extent to which I am learning or accomplishing what I set out to do?
 - How can I describe or show what I did?
 - How can I show the data collected and the results of my investigations or work?
 - Is there any reason to show how I used my time and energy?
 - Do I need to keep track of money spent and received?
- Your records might include diaries, outlines, stories, notebooks, written reports, tables, charts, drawings, recipes and photographs. Use your imagination.

Complete Step 4 on the Planning and Evaluation Form describing the records you will keep.

Once you've completed your project, share what you've learned. You're now a "resource person" for others in your community.

So that's it—4 steps to a great 4-H project. You've taken the first step. You're ready to explore the world of food and fitness. **To help you evaluate your progress, try answering these questions:**

Yes	No	Could Use Help	
_____	_____	_____	Have I set up goals that I can achieve?
_____	_____	_____	Is it hard for me to admit I don't understand something?
_____	_____	_____	Do I get off the track easily?
_____	_____	_____	Am I satisfied with a mediocre project?
_____	_____	_____	Am I willing to compromise and take suggestions from leaders and others?
_____	_____	_____	Have I grown personally in carrying out this project?
_____	_____	_____	Have I shared what I have learned in this project so it can help others in my club, school or community?

Nutrition And Fitness In Your World

People used to think certain foods were "magic." In many societies, warriors believed they would fight better if they ate raw meat just before a battle. For centuries, people wouldn't eat tomatoes because they thought they were poisonous.

Luckily, we live in a time when people no longer believe in food magic. Or do they? For the next few days, try listening to what people say about food. Here are some of the things you might hear—all of them myths:

“ I just ate fries and a bag of cookies, but I won't gain weight. I ate a grapefruit at the same time, and the grapefruit burns off the calories. ”

(See page 25 if you believe this one.)

“ I'm going to eat a steak and some cottage cheese. I've got to have strong muscles for the game in three hours. ”

(You can't build muscles in three hours. Foods containing complex carbohydrates, such as pasta, would be a better choice for energy.)

“ I quit eating sugar a long time ago. Now I eat only honey. It's a lot better for you than sugar. ”

(There are no significant nutritional differences between sugar and honey.)

The list could go on and on. The sad truth is that many Americans still believe that some foods are "magic"—that they possess special properties that can make you instantly healthier (or sicker), more beautiful (or less attractive), stronger (or less able to compete).

How can you find some common-sense answers to your questions about nutrition? That's one of the purposes of this project.

When we talk about "nutrition," we're also talking about fitness. They go together. Scientists tell us that activity level has a lot to do with whether food—such as a slice of pizza—will help build muscle, be used for energy or be stored as fat. As your activity level increases, fewer food calories will be used to make body fat.

As scientists have studied nutrition, they have learned a lot, but there is still more to learn. They do know that all

food is made up of nutrients, which are substances your body needs. While scientists do not yet know all of the functions and interrelationships of nutrients or the precise amounts needed by the body, they do know:

- Most foods contain several nutrients.
- No one food contains all the nutrients you need for good health.

To date, scientists have identified more than 40 nutrients that your body needs in varying amounts. New information continues to unfold. The chart on the next page lists the major groups of nutrients and their functions.

How do you get the nutrients you need in the amounts that your body requires? There is no "ideal" diet for everyone. Our needs—as well as our tastes—vary. The key is to remember three words: **BALANCE**, **VARIETY** and **MODERATION**.

BALANCE

means getting all the nutrients—carbohydrates, fats, proteins, vitamins, minerals and water—in adequate amounts and in proper proportion to one another. Balance also means making sure the calories we get from food equal the calories used by the body. If you eat more calories than your body uses, you'll gain weight. If you eat fewer calories than you need, you'll lose weight. Without balance, the body cannot function at an optimum level.

VARIETY

means selecting many different foods from each of the food groups and preparing them in different ways. Eating a wide variety of foods provides the basis for getting optimum amounts of all the nutrients needed for good health. For variety choose different foods from the food groups each day:

4 or more servings of vegetables and fruits, 4 or more servings of breads and cereals, 4 servings of milk and other dairy foods, 2 servings of meat, poultry, fish or beans . . . and not too many fats and sweets.

MODERATION

helps keep your caloric intake in balance. Further, it will help you avoid getting too much of any one nutrient. By eating moderate amounts of a wide variety of foods, you will not exceed or neglect your need for any single nutrient. You can be fit and trim and eat almost anything you want, but not as much as you may want—and not every day.



A
NIBBLE
ABOUT
NUTRIENTS

CARBOHYDRATES,

protein and fat all provide energy. However, because of the amount eaten, carbohydrates are the major sources of energy in our diet. Sugars are simple carbohydrates and are readily absorbed. Starch is a complex carbohydrate that must be broken down into simple carbohydrates by your body in order to be absorbed. Complex carbohydrates are found in whole grains, enriched or fortified breads and cereals, and in fruits and vegetables. Foods containing complex carbohydrates are important sources of vitamins and minerals. Fiber is also a carbohydrate; it adds bulk to your diet and helps the body eliminate waste material.

PROTEINS

are used to make new cells and repair or replace old ones. They are also needed to make enzymes and some hormones. In general, the protein from animal sources is better used by the body than is the protein from plant sources. However, plant source

proteins can be better used if they are combined with animal source proteins or if different plant source proteins are mixed together. For example, try cereal with milk, macaroni with cheese or beans with rice.

FATS,

which supply the body with the essential fatty acids, are carriers of vitamins A, D, E and K. Fats help form cell membranes. They are the most concentrated source of energy. Fats contain more than twice as much energy (calories) as the same amount of either protein or carbohydrate. Some fats are easy to identify, such as those found in butter, margarine and oil. Others, such as those found in meat and poultry, nuts, cheese and fried foods, may be "hidden."

VITAMINS

help the body's enzymes use other nutrients and help speed up biochemical reactions that keep the body working. For example, vitamin D

helps the body absorb calcium. Folacin helps make red blood cells. Even though vitamins are required in very small amounts, they are essential for life.

MINERALS

also help speed up biochemical reactions essential to life. In addition, some minerals are needed to build body structures. For example, potassium is needed for muscle contraction. Calcium is needed to build strong bones and teeth. Vitamins and minerals work together for good health. The absorption of iron, for instance, is enhanced when vitamin C is consumed at the same time.

WATER

carries nutrients to the body cells and removes the waste materials from them. It also helps regulate body temperature. Fifty to 70 percent of the body's weight is water. You could live several days without food, but not without water.

Eating Healthy? PICK PASTA!

Knowing about nutrition means understanding about food and food preparation so you can meet your nutritional goals. Pasta, particularly with a low-fat vegetable topping like the one in the recipe here, meets many of the dietary recommendations included in this manual.

Maybe you've always called it "macaroni." Perhaps you don't know a tortellini from a rigatoni or lasagna from fettuccini. But you're probably seeing a lot more pasta dishes today than you've ever seen before.

Pasta, the Italian word for "paste," is an edible dough made of semolina flour and water. Spaghetti, macaroni, ravioli and the wide variety of egg noodles with which we are familiar are all pastas.

Pasta fits perfectly into our fast-paced lifestyle. It's quick. It's inexpensive. It's low in calories. And it's nutritious.

Pasta contains complex carbohydrates and is a good source of vitamins B₁, B₂, niacin and iron. It's low in fat and sodium. It's an excellent source of energy—many marathon runners feast on pasta for days before a big race. And believe it or not, pasta is a great diet food. When combined with a source of animal protein like cheese or meat, the resulting protein mix is excellent.

You can buy pasta in dozens of sizes and shapes, from spaghetti to wide lasagna noodles, and from alphabets and shells to fancier cartwheels, twirls, bow ties and stars.

Pasta is versatile, too. You can serve it alone or with toppings. You can serve it hot topped with cheeses, meats or traditional tomato sauce, or you can make a combination (casserole) dish. You can serve it cold or in a salad, or even add it to homemade soups. An imaginative cook can prepare a variety of scrumptious dishes, from low-calorie ones if you're watching your weight to higher calorie ones if you're not. Only cheese and eggs are as versatile.

Be creative! Try different toppings on your pasta. Tomato-based sauces are traditional, of course, but can be combined with leftover poultry, seafood and meat to make interesting combinations. Cheeses, like cheddar, mozzarella, Monterey Jack and ricotta (low in fat) also make delicious toppings. Remember, whole milk cheeses are high in fat, so you might choose lower calorie toppings if you're watching your weight.

Pasta. It's positively peerless!

Here's a pasta dish that uses fresh, colorful vegetables cooked just until crisp but tender. The Italians call it "Pasta Primavera," because it was first made with the earliest vegetables of springtime. Today you can use almost any fresh and frozen vegetables and enjoy this dish year-round.

Pasta Pointers

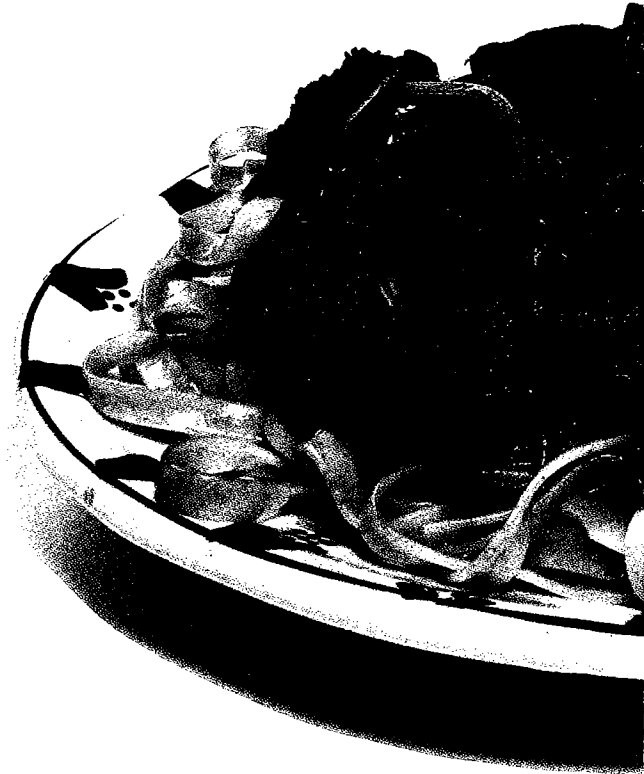
Don't overcook your pasta. The Italians cook it "al dente"—a little chewy. Homemade pasta will cook in nearly the time it takes for the water to return to a boil. Packaged pasta takes a little longer. Use plenty of water and bring it to a full boil before adding the pasta.

Prepare your topping before you start to cook the pasta. Then drain the hot pasta in a colander, serve onto plates, add the topping and enjoy. There's no need to rinse pasta with water if you use this method.

Try a different pasta shape. Instead of the traditional spaghetti or elbow macaroni, try making a pasta dish with rotelle (little wheels), agnolatti (angel's hair) or one of the other 600 pasta shapes available in this country.

Make your own pasta. A food processor and a pasta machine make the job easier, but all the equipment you really need is a bowl, a wooden spoon, a flat surface for oiling, a cutting board and a knife.

Uncooked pasta can be stored for up to one year in the dark under normal conditions without significant nutrient loss.



Conchiglie—shells



Farfalle—butterflies

