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news, notes, and information

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**A NICE MIX**  
Duncan, with Sophia, combines a knowledge of science and a passion for cooking.

## Scientist Cook

BY | ABBY LUBY



COOKING  
WITHOUT  
SUGAR AND  
OTHER TRICKS

IT'S THE CHEMISTRY OF BAKING THAT CAPTIVATES MARY DUNCAN, cooking teacher at Rainbeau Ridge in Bedford Hills. Understanding physics, measurements, and statistics are familiar to Duncan, who was a research scientist for 20 years at Yale, Columbia, and most recently at the University of Connecticut. "It's great to think how nuts and seeds in your baked goods challenge your leavening agent," says Duncan. "Putting together a list of ingredients to get to your end goal—that's the fun. I love it."

Duncan, whose scholarly demeanor is a sidelight to her enlivened passion for nutritional cooking, is energetically slender. It isn't just the mixing, measuring, and studying the ingredients, she says. It's proving that tasty dishes can be made without sugar, wheat, or dairy—what Duncan calls the pervasive holy trinity of the American diet. "If I want a gooey brownie but want to use a liquid sweetener instead of



## Scones With Dried Fruit

2 cups whole spelt or whole wheat flour  
 1 tbs aluminum-free baking powder  
 ¾ tsp sea salt  
 6 tbs palm fruit oil (vegetable shortening)  
 2 to 3 tbs honey (to desired sweetness)  
 ¾ cup soy milk  
 ½ to 1 cup chopped dried fruit (to taste)  
 flour for dusting  
 sugar for sprinkling

- 1) Thoroughly combine the dry ingredients then blend in the shortening. Small (pea-sized) pieces of shortening will be visible.
- 2) Whisk the honey into the soy milk. Combine the dry and liquid ingredients using a dough whisk or wooden spoon. Do not overwork. Gently push the dough together with your hands until sticky. Add more liquid if necessary.
- 3) Fold in the dried fruit.
- 4) Let the dough rest while you line a cookie sheet with parchment and set out the cooling racks. It will absorb some of the liquid and be less sticky. This also provides a little extra time for the first rise—an advantage in whole grain baking.
- 5) Divide the dough into three parts of equal size. Place one part on a lightly floured work surface. Flip. Gently pat to form a disk or rectangle about an inch thick. Cut into four to six pieces. Repeat.
- 6) Place the pieces on the parchment-lined cookie sheet. Sprinkle with sugar. Bake until firm but not hard (14 to 15 minutes in a conventional oven). Cool on a wire rack.

table sugar, how would I do that?” asks Duncan. Cooking with liquid substitutes such as Guinness Stout, orange juice, and coconut milk affect all the other recipe ingredients, which Duncan regularly experiments with in her new lab: her home kitchen.

“What happens if I use coconut milk instead of cow’s milk?” she queries. “You need to know how to tweak your favorite recipe if you use whole-grain flours and liquid sweeteners as opposed to crystallized sweeteners like table sugar—the chemistry is different.”

One of Duncan’s favorite holiday recipes is Whole Grain Cranberry Nut Muffins that uses honey instead of sugar and whole-grain flour instead of white flour. “The muffins have a rustic

Nick Gutfreund have lived in Bedford since 1989. Her daughter Sophia was born in 1999. Discovering that Sophia was allergic to dairy provided Duncan with a new science project. She started working at home while becoming a full-time parent and starting her second career as a cook. Duncan compares cooking to her past research projects. “They both benefit people, and it’s still science, just taken to a different level.”

When Sophia was in kindergarten Duncan enrolled her in a farm-to-table class at Rainbeau Ridge called Sprouts. Soon Duncan was invited by farm owner Lisa Schwartz to teach cooking with substitute ingredients. Now Duncan is planning a small business called Kinderwin-

## YOU NEED TO KNOW HOW TO TWEAK YOUR FAVORITE RECIPE

texture,” explains Duncan, who suggests trying whole-wheat pastry flour to “tenderize” the bread.

As a scientist Duncan’s research focused on health access and nutrition for the poor. “If you’re poor you may be eating junk food because it tends to be less expensive than fresh food,” says Duncan. “As much as I loved the work, a lot of it was a very heavy burden to carry. But I felt that I was fulfilling a community responsibility by doing work that’s useful to others.”

Duncan and her husband

kle Wholesome Snacks. “I’m experimenting in my own kitchen to see how it can work.” As Duncan immerses her scientific energies into food preparation, she sees both careers blending together.

“I still care deeply for people that don’t have enough food,” she muses. “But I can also please my daughter and her friends by preparing food that pleases and nourishes them. It’s a much more localized contribution; it’s less global than what I used to do, which fits me right now.”