

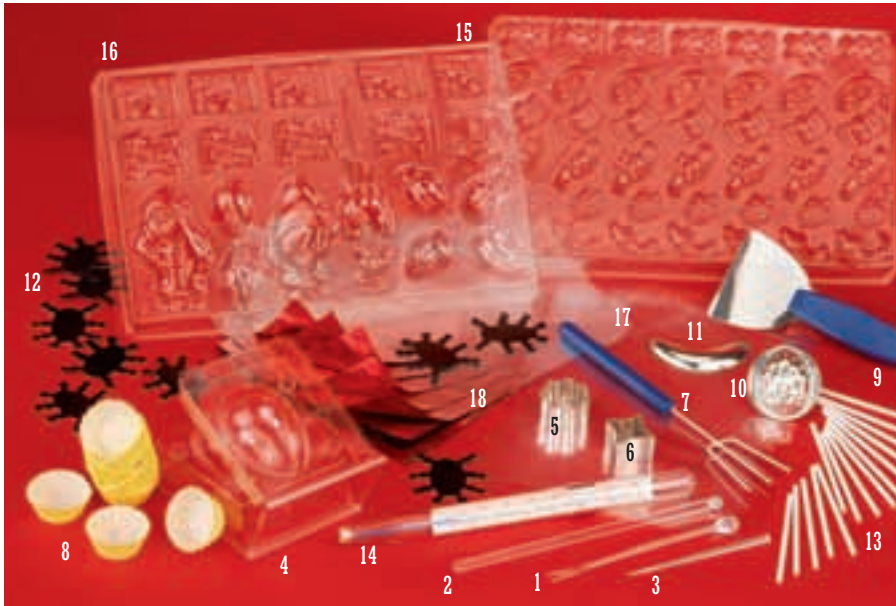
62 Thames & Kosmos

CANDY FACTORY

The science of sweets

Experiment Book

KIT CONTENTS



No.	Description	Quantity	Part No.
1	Forked tool	1	703 338
2	Flat stirring tool	1	703 339
3	Pick tool	1	703 340
4	Chocolate egg mold	1	703 341
5	Small shape cutter, flower	1	703 342
6	Small shape cutter, diamond	1	703 343
7	Dipping fork	1	703 344
8	Set of small baking cups	1	703 345
9	Sugar spatula	1	703 347
10	Small metal mold, strawberry	1	703 351
11	Small metal mold, banana	1	703 352
12	Set of ladybug legs, cardboard	1	771 222
13	Set of sticks	1	771 223
14	Candy thermometer	1	703 182
	Small bag containing:		771 221
15	Gummy candy mold, plastic	1	
16	Chocolate mold, plastic	1	
17	Plastic wrappers, transparent	1	
18	Aluminum foil sheets, red/silver	1	

The right to technical alterations is reserved.

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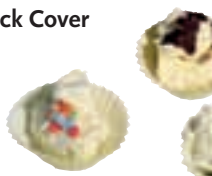
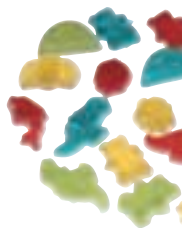
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Candy Time line Back Cover



CANDIES WITH GELATIN

Wiggle and Jiggle

Gummy Shapes

The star of the gummy world is unquestionably the gummy bear. It was developed in 1922 in Germany and has spread around the entire world. With the gummy candy mold you can make other gummies such as bats, dinosaurs, dolphins, or simply fruit shapes.

1 Mix the gelatin in the small pot of a double boiler with 3 tbsp water and let it soak for about 15 minutes. Instead of water you can also use the same quantity of fruit juice or sufficiently diluted flavor syrup, which will give your fruit gummies even more taste and color. We suggest raspberry, lemon, lime, orange, cherry, or strawberry extracts or syrups.

2 Put the sugar and citric acid (optional) in a small bowl and dissolve the crystals in 1 tsp of water.

3 Heat the gelatin in the double boiler to a maximum of 75°C (167°F) or to a point when it has just become liquid. Now stir in the honey, a few drops of food coloring, and the sugar-citric acid solution.

You Will Need



FROM THE KIT: candy thermometer, gummy candy mold

IN ADDITION: large pot, small pot, kitchen spoon, small bowl, vegetable oil, brush, tablespoon, teaspoon

INGREDIENTS: 1 packet of gelatin (1 tbsp); 3 tbsp water or fruit juice, or 2 tbsp diluted fruit syrup; 1 tbsp sugar; 1 pinch citric acid (optional, also called "sour salt"); ½ tsp honey; food coloring

4 Let the liquid cool off or stand so that the foam settles. If necessary, skim the foam off the surface with a spoon. Now spoon the fruit gummy solution with a teaspoon into the lightly oiled molds. After about three hours you can carefully check whether the shapes are hard enough to come out of the mold. Remove them with the help of the pick tool. You can fill about

half of the shapes in the mold with this recipe; fill the second half with another color.



3



4



INFO

Where Does Gelatin Come From?

The ingredient that causes these candies to be “gummy” is called **gelatin**. Gelatin is made from bones and connective tissue (the hide) of animals. This animal protein has the ability to swell up in cold water, and to be dissolved when heated. And, as soon as it is cooled off again, it forms a “reversible” gel. That means it can return to an earlier state. This is different from the gelatin in eggs. Once it is boiled, egg white remains firm and cannot be turned back.

Gelatin consists of many long chains of **collagen** molecules. Parts of them are responsible for the firm structure, other parts for the contact to the water molecules. In warm water, the water molecules can slide in between the collagen molecules and fold their inner structure together. This is when the gelatin is dissolved. When cooled off, the collagen molecules connect themselves together again and as a result form a network that can make liquids firm.

Cream Gummies

This is a variation on the fruit gummies from the previous recipe.

1 Let the gelatin soak in a small bowl containing 3 tablespoons of a dark fruit juice. We suggest black current, pomegranate, or cherry juice.

2 Put the sugar, corn syrup, and an additional 2 tablespoons of the juice into the pot. Hang the candy thermometer from the top of the pot and heat it up to 115 °C (239 °F). Stir periodically.

TIP

To prevent the fruit gummies from sticking together you can powder the pieces with some starch.

You Will Need



FROM THE KIT: candy thermometer, gummy shape mold

IN ADDITION: kitchen pot, kitchen spoon, oil, brush, tablespoon, teaspoon

INGREDIENTS: 1 tbsp gelatin; 5 tbsp fruit juice (such as black currant or pomegranate); 1 tbsp sugar; 1 tbsp light corn syrup; 1 tsp raspberry syrup (optional); 1 tsp cream

3 Take the pot off the stove, let the mixture cool a little, and stir in the soaked gelatin until it has become fully dissolved.

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