Food Additives Worksheet

1. Record and define each of the following terms in your notebook:

a. organic food

b. natural food

c. processed food

d. food additives

2. Name three preservatives that were used many years ago before today’s modern technology.

3. Give five different functions of additives in our food.

4. What are the four most common uses for additives in food.

5. Define “natural food additive.” Give an example of a natural food additive. Give an example of a natural food additive that is not safe for human consumption.

6. What is a synthetic food additive? Give an example of a synthetic food additive and name what food is this additive used in.

7. What is the difference between an “intentional” food additive and an “incidental” food additive? Give three examples of incidental food additives.

8. Are there any controls on the use of food additives to ensure safety for the consumer? Define “GRAS.” How was the GRAS list developed?

9. What is the Delaney Clause? Name three food additives that have been banned from their original use due to the Delaney Clause.

10. What organization is intended to protect the consumer from harmful food products?

11. Name the three minimum standards that all food products are subjected to before they can be marketed. Name which of the three standards is used for the following:

a. requiring non-misleading naming of the product

b. expiration date

c. net weight

12. Copy the minimum information that is required on food labels for any food product that has a nutrition claim or is “fortified”.

Food Additives Worksheet Answer Key

**1. Record and define each of the following terms in your notebook**

 **organic food**: foods grown without the use of pesticides or artificial

fertilizers

**natural food**: foods grown without the use of artificial fertilizers, but may

contain pesticides

**processed food**: all foods other than “organic” and “natural;” usually packaged

**food additives**: substances added directly to food or substances which may reasonably be expected to become components of food through surface contact with equipment or packaging materials or even substances that may otherwise affect the food without becoming part of it (such as various forms of radiation used in food processing).

2. Name three preservatives that were used many years ago before today’s modern technology.

fire salt “smoking” spices

**3. Give five different functions of additives in our food.**

hardening/softening, rising/shrinking, disease prevention/bacteria and fungus growth, sweeteners/sourers, drying/wetting, coloring/paling, foaming/anti-foaming, whipping/settling, sterilizing, propellants, increase volume/decrease volume, make smoother/make less smooth, etc. etc. etc. flavor, preservation, looks and smell

4. What are the four most common uses for additives in food.

flavor preservation looks smell

5. Define “natural food additive.” Give an example of a natural food additive. Give an example of a natural food additive that is not safe for human consumption.

 A natural additive simply means that it is already in some food such as sugar, salt and many vitamins. Citric acid is found in all citrus fruit. “Lecithin” is found in soybeans and corn. Many foods contain sugars, salt and vitamins naturally. Safrole is a toxin found in sassafras roots, oxalic acid is found in spinach and rhubarb greens.

**6. What is a synthetic food additive? Give an example of a synthetic food additive and name what food is this additive used in.**

 Synthetic additives are purposely added to perform a specific function. “Propionates” are synthetic additives added to bread products to retard mold. Propionates are also a natural food additive found in cheese.

**7. What is the difference between an “intentional” food additive and an “incidental” food additive? Give three examples of incidental food additives**.

 Intentional additives are knowingly added to a food for a specific purpose. Incidental additives enter or effect foods unintentionally. Some incidental additives include dirt, paper taste from a container, aluminum from cooking pans, and chemicals used in containers for preservation.

8. Are there any controls on the use of food additives to ensure safety for the consumer? Define “GRAS.” How was the GRAS list developed?

 The Food and Drug Administration has established many regulations concerning food additives. GRAS: generally recognized as safe. The GRAS list was compiled largely of lists of substances already recognized in 1958 as suitable for food by publication in FDA Food Standards, by publication in certain State regulation, and lists of substances known to have been used in food for some years without reported adverse effects.

**9. What is the Delaney Clause? Name three food additives that have been banned from their original use due to the Delaney Clause.**

 The Delaney clause is a constitutional amendment that prohibits the use of any food additive found to induce cancer (carcinogens) when ingested by man or animal. Some examples are Nitrates to enhance meat products, saccharin as a sugar substitute, and DES to increase weight in animals.

10. What organization is intended to protect the consumer from harmful food products?

FDA: “Food and Drug Administration”

**11. Name the three minimum standards that all food products are subjected to before they can be marketed. Name which of the three standards is used for the following:**

**requiring non-misleading naming of the product, expiration date & net weight**

identity (proper naming of products)

quality (expiration date)

fill or fullness (net weight)

12. Copy the minimum information that is required on food labels for any food product that has a nutrition claim or is “fortified”.

#### Nutrition Information

(Per serving)

serving size = 1 oz.

servings per container = 12

 calories 110

 protein 2 grams

 carbohydrate 24 grams

 fat 0 grams

#### Percentage of U.S. Recommended Daily Allowances

(U.S. RDA)

 protein 2

 thiamin 8

 niacin 2

 vitamin A \*

 vitamin C \*

 riboflavin \*

 calcium \*

 iron \*

\*Contains less than 2% of U.S. RDA