# Science 9-Biology Experiment 6-2—Testing for Fats

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**Purpose:** To test some foods for the presence of fats

#### **Materials:**

A brown non-glazed paper bag

Teacher's material for positive test results (vegetable oil, lard etc.)

Six food samples for testing – Listen carefully to the discussion before choosing your food. You want positive and negative results.

#### **Procedure:**

- 1. Divide your bag into eight squares.
- 2. On one of the squares place the teacher's **material for positive test** (vegetable oil etc.)
- 3. On the next square put a few drops of water (this is a control)
- 4. On the other 6 squares place **food samples**. Rub each food thoroughly into the paper.
- 5. Clearly label each of the 8 squares
- 6. Scrape off any excess food particles into the garbage
- 7. Put a few drops of water on each of the 8 squares and rub it into the paper.
- 8. Follow the teacher's instructions for **drying** the papers. (You might use a heat lamp or a hair dryer etc.)
- 9. When the paper is dry, examine the squares for a "greasy" mark.
- 10. Hold the paper up to a light source. The presence of fat is indicated by a **translucent spot** on the paper.
- 11. On the **table** on the next page, **label the samples** (including the known **positive** sample and the **control**) and indicate whether or not fat (translucent spot) was detected or not. In the square after "Fat?" write "Y" or "N".

Indicate the **relative amount** of fat detected by checking off "**High Fat**", "Low Fat" or "No Fat" in each box.

#### **Observations:**

## **Testing For Fats**

| Sample    | Sample    | Sample    | Sample    |
|-----------|-----------|-----------|-----------|
| Fat?(Y/N) | Fat?(Y/N) | Fat?(Y/N) | Fat?(Y/N) |
| High Fat  | High Fat  | High Fat  | High Fat  |
| Low Fat   | Low Fat   | Low Fat   | Low Fat   |
| No Fat    | No Fat    | No Fat    | No Fat    |
|           |           |           |           |
| Sample    | Sample    | Sample    | Sample    |
| Fat?(Y/N) | Fat?(Y/N) | Fat?(Y/N) | Fat?(Y/N) |
| High Fat  | High Fat  | High Fat  | High Fat  |
| Low Fat   | Low Fat   | Low Fat   | Low Fat   |
| No Fat    | No Fat    | No Fat    | No Fat    |
|           |           |           |           |

### **Questions:**

- 1. Which foods that you tested were **relatively high** in fat content? \_\_\_\_\_\_
- 2. Which foods that you tested contained **no detectable fat**?
- 3. Describe a **positive test** for fat when brown paper is used.
- 4. What was the purpose of putting just **plain water** on one of the squares? \_\_\_\_\_
- 5. Can fats come from **plant** sources?