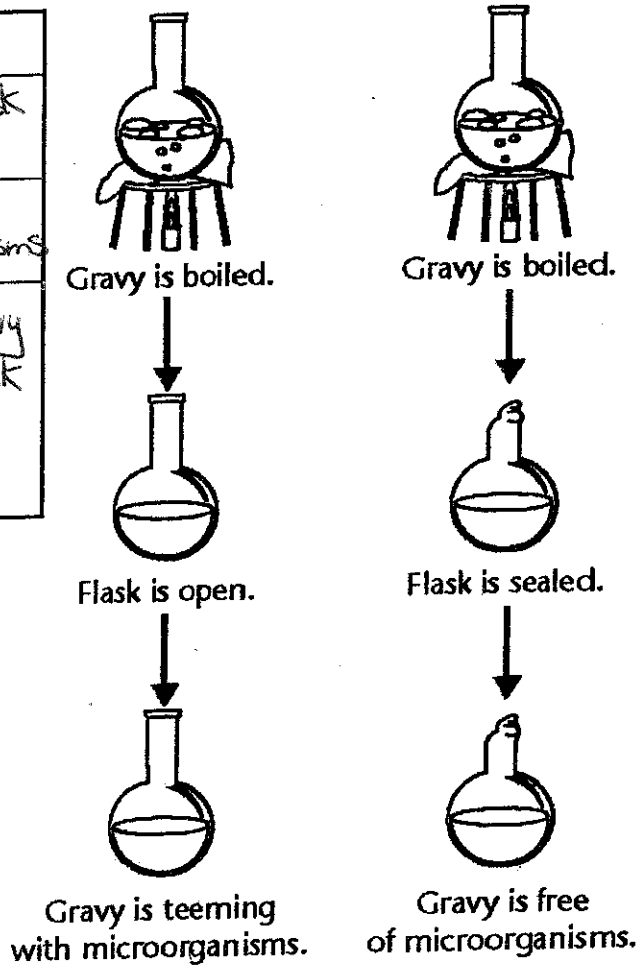


Variables

In a controlled experiment, only one variable is changed. This is called the manipulated variable. The variable that changes in response to the manipulated variable is called the responding variable. The variables that are kept constant are called controlled variables.

Identify the manipulated variable, the responding variable, and two of the controlled variables in the experiment shown.

Types of Variables	
Manipulated Variable	sealing flask
Responding Variable	growth of microorganisms
Controlled Variables	boiling gravy size of flask both used gravy location time of boiling etc



Use the diagram and table to answer the question.

1. Suppose the scientist had put one type of gravy in the flask he left open and another in the flask he sealed. Would this be a well-designed controlled experiment? Explain.

No because there would have been more than one manipulated variable.
 It would be difficult to determine what caused the lack of organisms the sealing of the container or the different gravy.