Name:	
Date: _	

#### **Component Group 1**

- 1-1) What process was used to make this piece? How can you tell?
- 1-2) How was the mold for this part made? How can you tell?
- 1-3) What is the function of the feature found on each corner (shown below)?
- 1-4) What material do you think this is? Why?

### **Component Group 2**

- 2-1) One side of this part has numbers on it. Which side of the mold was this on (A or B)?
- 2-2) Which method do you think was used to remove the sprue from this molding?

Hand snipped
Hot runner mold
Insulated runner mold

2-3) What manufacturing process made this part?

# **Component Group 3**

- 3-1) What process was used to mold these components together?
- 3-2) When was this part made?
- 3-3) What material is the larger, light grey component made from?
- 3-4) How can you tell?
- 3-5) What does the abbreviation TF20 stand for?

## **Component Group 4**

4-1) How were these component made? What evidence do you have?

# **Component Group 5**

- 5-1 ) Assuming the marbled pattern is not intentional, what might explain this effect?
- 5-2) What is the name of the feature that connects the two halves?

- 5-3) What might have caused the hole to form?
- 5-4) How many gate locations do you see on the part.
- 5-5) Was this molded in one or two pieces?

#### **Component Group 6**

- 6-1) How was this part produced?
- 6-2) What is the name of the feature that connects the two parts?
- 6-3) What material is the part made from?
- 6-4) What is the purpose of the rectangular holes?
- 6-5) Were slides required to produce the snap-fit connectors?
- 6-6) Why is the part ribbed instead of just being thicker?

#### **Component Group 7**

- 7-1) Was this part made using a hot runner mold?
- 7-2) Were slides used to make the snap-fit connectors?
- 7-3) What is the profile of the runner system (round, trapezoidal, square)?
- 7-4) Be able to identify the A and B side of this component.

### **Component Group 8**

- 8-1) What type of blow molding was used to make this bottle?
- 8-2) What material is the bottle made of?
- 8-3) What unique feature on some of the parisons indicates they are going to make a bottle with a wide base such as the bottle shown?
- 8-4) How were the parisons made?
- 8-5) Why do the parisons not have a recycle code on them?

## **Component Group 9**

- 9-1) How were these components made?
- 9-2) Why were these parts not injection molded?
- 9-3) What material do you think these are made from? Why?

### **Component Group 10**

- 10-1) What (primary) process was used to make this part?
- 10-2) Explain how the slots and holes were produced.
- 10-3) Why was this part not injection molded?

### **Component Group 11**

- 11-1) What process was used to make these parts?
- 11-2) How many cavities were in this mold?
- 11-3) Which cavity (number) did the attached workpiece come from?
- 11-4) What type of gate was used in this mold?
- 11-5) Be able to identify the A and B side of this mold.
- 11-6) Be able to find the sprue puller.
- 11-7 Be able to identify ejection pin witness marks
- 11-8 Be able to identify cold slug wells.

# **Component Group 12**

- 12-1) How were these parts made?
- 12-2) What material do you think these are made from?