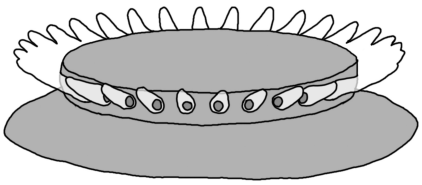
Name: _____ Class: _____ Date: _____

5.2 Explanations Tool: What Happens to Methane When It Burns?

The Matter Movement Question



Draw and label arrows that show molecules moving into, through, and out the flame when methane burns.

- Show and label molecules with carbon atoms
  - moving into the flame.
  - leaving the flame
- Show other, relevant molecules.

The Matter Change Question

Name the chemical change that happens when methane burns:

Write the chemical equation for this change:

What molecules are carbon atoms in before the chemical change?

What molecules are carbon atoms in after the chemical change?

Chemical Change

What other molecules are needed?

What other molecules are produced?

The Energy Change Question

What forms of energy go into this chemical change?

Energy Transformation

What forms of energy come out of this chemical change?

Where does the energy go or stay after the change?

Explain in words: What happens to methane when it burns? (Answer on the back).

Use this Explanations Tool to help guide your written explanation, being sure to answer the Three Questions.

Remember: **Atoms last forever** (so you can arrange atoms into new molecules, but can't add or subtract atoms).
Energy lasts forever (so you can change forms of energy, but energy can't appear or go away).