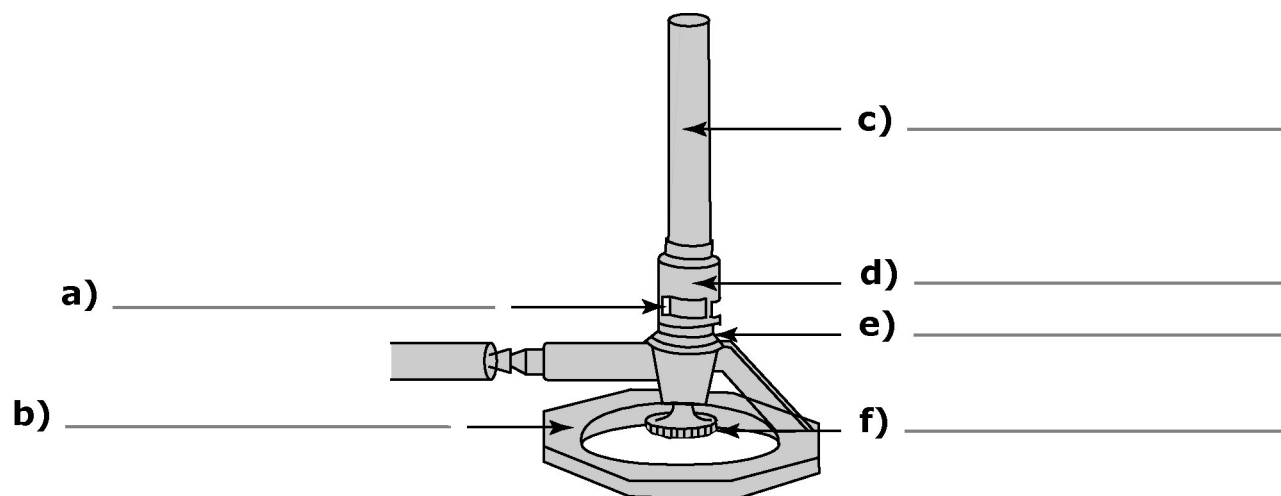


## Using a Bunsen Burner

1. Label the drawing of a Bunsen burner using the following terms.

barrel	air regulator	gas outlet	air intake	base	gas adjustment screw
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A Bunsen burner has inlets for gas and air. A proper balance of each is needed to produce a suitable flame and to ensure the gas burns completely.

The flame should be colourless to pale blue. An orange flame shows that the gas is not being burned completely. It is cooler than the colourless or pale blue flame.

### Bunsen Burner Safety

- Be careful not to lean over the burner while lighting it.
- Tie back long hair and roll up long sleeves.
- Do not leave the burner unattended while it is in use.

### How to Light a Bunsen Burner

- Connect the burner's hose to the gas valve on your lab bench.
- Turn the barrel all the way to the bottom of the burner.
- Turn on the gas and quickly light the burner with a gas lighter or a match.  
The flame should be orange.

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Date: \_\_\_\_\_

**BLM 1-2**  
(continued)

- Turn the barrel of the burner up so the air intake holes are open and let the air mix with the gas. The flame will begin to turn a light blue colour.
  - The higher the barrel goes, the more air is allowed in and the hotter the flame gets.
  - There will come a point when you can see a lighter blue flame inside of the flame that is already there. This light blue inner cone is the hottest part of the flame.

## Troubleshooting Guide

Trouble	What to Do
Burner won't light	<ul style="list-style-type: none"><li>• Make sure the barrel is turned all the way down.</li><li>• Turn the gas adjustment screw.</li></ul>
Noisy flame	<ul style="list-style-type: none"><li>• Turn the barrel DOWN. This will decrease the amount of air.</li></ul>
Yellow-orange flame	<ul style="list-style-type: none"><li>• Turn the barrel UP. This will increase the amount of air.</li></ul>
Cool blue flame	<ul style="list-style-type: none"><li>• Turn the barrel UP to increase the amount of air.</li></ul>
No blue "inner" cone	<ul style="list-style-type: none"><li>• Turn the barrel UP to increase the amount of air.</li></ul>
Gap forms between flame and barrel	<ul style="list-style-type: none"><li>• Turn the barrel DOWN to decrease the amount of air.</li></ul>