Unit 113: Plumbing, heating and ventilation

# Worksheet 13: Hydronic heating part 1 (learner)

Complete the tasks in this worksheet as directed by your tutor:

1. In the space below, describe the main difference between an open vented and a sealed heating system:
2. Complete the passages below by adding the type of boiler they describe from the three types given:

**Options: Combination boiler – Traditional boiler – System boiler**

a: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

This type of boiler does **not** contain a second heat exchanger used to produce hot water on demand. It is a heat only type boiler and is often coupled with a cylinder to produce hot water storage. Within the boiler, all boiler controls are fitted including a pump.

b: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

A compact boiler that contains all components required to produce heating and hot water. This boiler is mains fed and is the most common boiler fitted today in dwellings.

C: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

This appliance is still found in some older properties, but is less common than others. This appliance is simply a heat exchanger and burner with the other system controls and components fitted externally.

1. In the space below, sketch a simple one-pipe heating system including three or four radiators. If that is too easy, try adding a hot water cylinder. Label your drawing to identify the names of the components you know.
2. These days it is unusual that anyone would install a one-pipe system, but you may come across one in an older building. Use the space below to list at least three (try to get more if you can) reasons why a one-pipe system is now avoided:

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