

Nom :

Date:

HVAC Learning.com

# Exercise Booklet

*Print this exercise booklet before studying the lesson on line. It will enable you to write your answers to the HVAC learning exercises. You will thus be able to switch between reading or listening to the file on-line and writing in the booklet.*



## GENERAL PRESENTATION OF AIR CONDITIONING

*English lesson:*

<https://hvac-learning.com/air-conditioning-cooling/air-conditioners-training/general-presentation-of-air-conditioning/>

*French version:*

<https://formation.xpair.com/cours/presentation-generale-climatisation.htm>

*For each exercise, you will write your answer, then you will study its correction on-line before going to the next exercise.*

*If you cannot do an exercise, you will be able to study its correction directly, but **force yourself to write your answer** as often as possible.*

*Note that between 2 exercises, you will find it necessary to study the course. As a warning, in the booklet, you will sometimes find the following indication:*

- **“ Study the course on-line before doing the next exercise”** or
- **“ Study the course on-line before going to the next paragraph”**

*Only study the paragraphs or the exercises which have an equal or a lower level than the one your training requires.*

*NVQ Level = Vocational Certificate*

*A Level = High school Diploma*

*HND Level = Associate's Degree*

*MSC Level = Engineering Schools*

*Then, when you have completed a file, you will be able to assess your level on-line through a Multiple Choice Questionnaire in which you will only answer the questions related to the themes you have studied.*

*So now off you go and work well!*

*Good luck!*

*The Authors.*

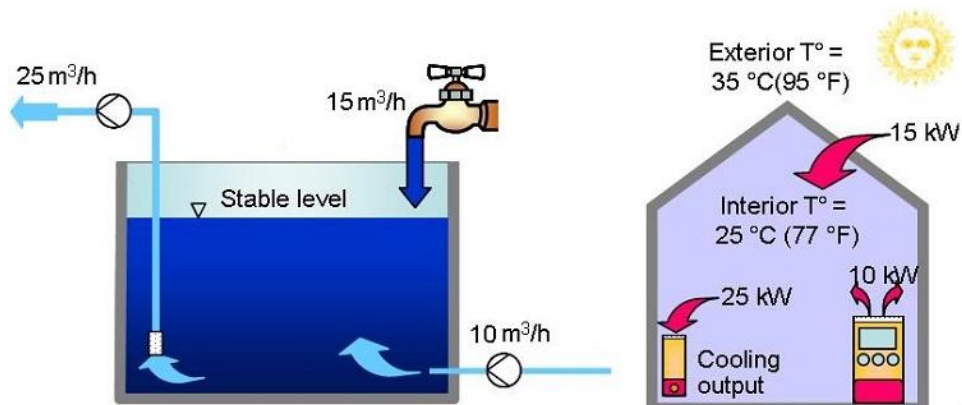
## N°1 - Presentation of air conditioning training (VTC level)

*Study the course on-line.*



## N°2 - Controlling ambient temperature training (VTC level)

*Study the course on-line before treating the next exercise.*



### Question 1:

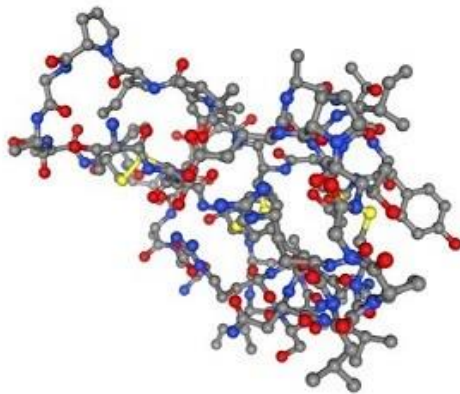
We know that in winter, to provide the necessary heat we could:

- Install a heat emitter fed by hot water or electricity
- Introduce an air flow which is hotter than the ambient temperature.

In common with the 2 technical solutions referred to above to provide heat to premises in winter, define 2 principles allowing the extraction of heat (or energy) from the premises in summer.

### N°3 - Dissipation of our body heat training (VTC level)

*Study the course on-line before treating the next exercise.*



#### Question 1:

Why should sports centers not be heated too much?

### N°4 - Notion of comfort in terms of temperature and humidity training (VTC level)

*Study the course on-line before treating the next exercise.*



**Question 1:**

Provide a detailed and complete list of all the advice we could give to an elderly or other vulnerable person during a heat wave period, other of course, than that of installing an air conditioner...

**N°5 - Outside air humidity training (A level)**

*Study the course on-line before treating the next exercise.*



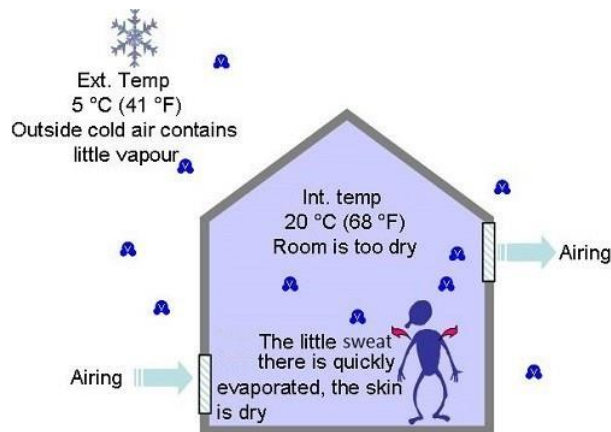
**Question 1:**

What do we see in the kitchen above the boiling sauce-pan?  
Water vapour or water in suspension?

**Study the course on-line before treating the next paragraph.**

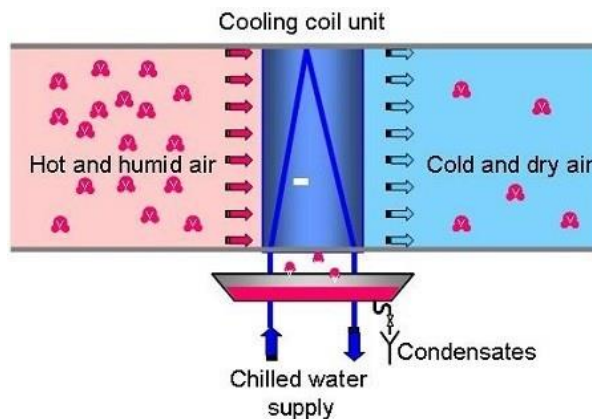
## N°6 - Controlling humidity in winter

**Study the course on-line.**



## N°7 - Controlling humidity in summer training (A level)

**Study the course on-line.**



## N°8 - Heatwave periods training (VTC level)



### ***Reduce to the maximum, sources of heat input to the building***

- *Close the windows, curtains, blinds and shutters during the day, particularly on the side exposed to the sun.*
- *Open the windows and shutters at night.*
- *Limit the use of electrical equipment such as lighting, electric hot-plates, ovens, televisions, computers etc.*
- *Install low energy consumption light bulbs.*

### ***Reduce the quantity of heat to be evacuated by the organism***

- *Limit physical activity, rest up*
- *Avoid food which is too rich*

### ***Help the organism evacuate its heat***

- *Live in the room which is the least exposed to sunlight, close the communicating doors to exposed rooms*
- *Dress in light clothes*
- *Drink a lot (liquid evaporation helps to evacuate heat)*
- *Air the room or use a fan (even if the room temperature is higher than skin temperature, fans help to evacuate sweat and therefore produce a cooling effect)*
- *Use a water spray to dampen the skin, or other means; a shower etc.*
- *If the type of flooring is appropriate, and slipping can be avoided, dampen the floor and the curtains, the wall coverings etc..*
- *Only go out in the evenings or stay in air conditioned rooms; avoid crowded non air conditioned places.*

*English lesson:*

<https://hvac-learning.com/air-conditioning-cooling/air-conditioners-training/general-presentation-of-air-conditioning/>

*French version:*

<https://formation.xpair.com/cours/presentation-generale-climatisation.htm>

*All rights are reserved. None of this material may be reproduced or redistributed without HVAC Learning's written permission.*