

General guidelines

- Make sure that the furniture in the office...
 - ...does not block natural light;
 - ...does not cover the radiators;
 - ...is not in the way of the air conditioner;
 - ...is not around air vents and ducts.
- **The upholstery** of chairs and sofas...
 - ...is either **natural and absorbent** (cotton or wool blends, linen etc.), so in the summer it is less hot and sticky to sit on,
 - ...or is **synthetic mesh with proper airflow**.
- **Play with colours** – the colour of the furniture and the walls have an effect on how hot or cold you feel in the room.
- **Make the office as green as possible – with plants!** They cool the air and create a comfortable humidity level.
- **Plant trees outside the building** – the shade provides protection from intense sunshine in the summer and cold winds in the winter.

FURNITURE AND PLANTS

Furniture

If you want to make your office as energy efficient as possible, you must not forget to carefully choose and arrange the furniture in the rooms. Furnishing does not only affect how you feel, but also how much energy you use to cool or heat the spaces.



Your office furniture is saving energy if...

1. **...it does not block natural light**, so you do not need to use lights just because the shelves and cupboards make the room dark.
2. **...it does not cover radiators/air conditioners** and does not absorb the heat/cool air instead of the room.
3. **...it is not placed around air vents and ducts**. If you put sofas and chairs for example in front of air vents, they will absorb the heat and slow down the heating process which makes the heating system work harder and the energy bill higher.
4. **...the upholstery of chairs and sofas are made of natural and absorbent fabrics**, such as cotton or wool blends, so they are not too warm and sticky in hot weather.
5. **...in the case of synthetic upholstery the material has a proper airflow** and it helps prevent uncomfortable overheat and back-sweat.
6. **...the material and colour of the furniture make people feel cosy**, so they need less heating in cold weather and less cooling in the summer.

Plants have several benefits for the office:

1. **Indoors they cool the air** by a process called transpiration, and save a lot of energy by reducing the work of the air conditioner in the summer.
2. By evaporating water from their leaves **they also raise the humidity of the air**, which makes employees feel warmer (less heating needed in the winter!) and more comfortable.
3. **Plants also improve air quality** by reducing indoor pollution, and managing carbon dioxide levels.
4. **Trees outside the office can protect the building** from the heat of the sun in the summer and cold winds in the winter.

TOP TIPS FOR CHAMPIONS

Choosing the right colours also makes a difference. For instance lighter colours for fabrics, carpets and desktops make the most of available light.

The colour of a room also affects your perception of temperature – cool colours make you feel colder and warm colours make you feel hotter. You can choose the dominant colours of your office based on its southern/northern exposure.

YOU CAN ALSO....

You can **cover the exterior walls** – place tall bookshelves and cabinets at the exterior walls to slow the transmission of heat through the wall.

You can put decorations (large pictures, poster etc.) on exterior walls and prevent heat from escaping.

DID YOU KNOW?

Environmentally friendly furniture is much better for the planet and our health too! Tables, shelves and chairs not only use energy and natural resources when they are manufactured, but they can also release toxic chemicals into the environment during their whole life-cycle. Fortunately there are quite a lot of options to find certified (e.g. BIFMA, SCS, Greenguard), environmentally friendly office furniture, that is made of natural, sustainable and/or recycled materials, local resources, non-toxic glues, eco-fabrics and is manufactured with reduced emissions.

But furniture can not only be eco, it can also **generate electricity or store heat!** With future energy-efficient investments on mind, it is definitely worth keeping an eye on new inventions, as groundbreaking designers are introducing great energy smart products for the office!

FURTHER READING AND IDEAS

How to choose green furniture

12 plants that naturally remove toxins

PICTURES

<https://www.ambius.com/offices/>, <https://www.dezeen.com>



Office desk that generates electricity from body heat and movement



Zero-Energy Furniture can store heat and regulate indoor temperatures