

Energy efficiency measures – Draught-proofing

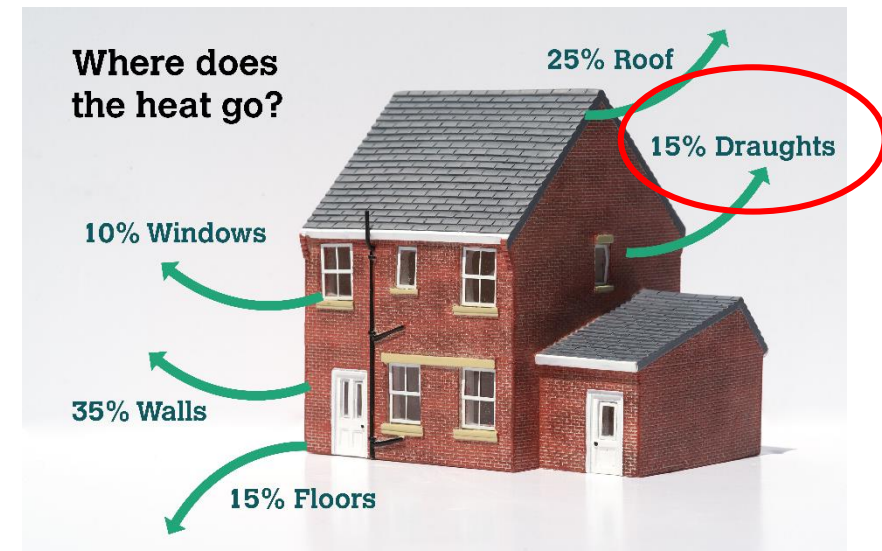
Scope

- This training module is aimed at **HomeWorks** registered tradespeople who are acting as Low Carbon Ambassadors (LCAs) to provide basic energy efficiency advice to homeowners
- It is one in a series of training modules aimed at LCAs:
 - Introduction to domestic retrofit
 - What is **HomeWorks**?
 - Understanding an EPC (Energy Performance Certificate)
 - Energy efficiency measures (EEMs):
 - Low/no cost measures
 - Loft insulation
 - **Draught-proofing**
 - Cavity wall insulation
 - Solid wall insulation
 - Replacement windows
 - Boiler replacement



EEMs – Draught-proofing - Learning outcomes

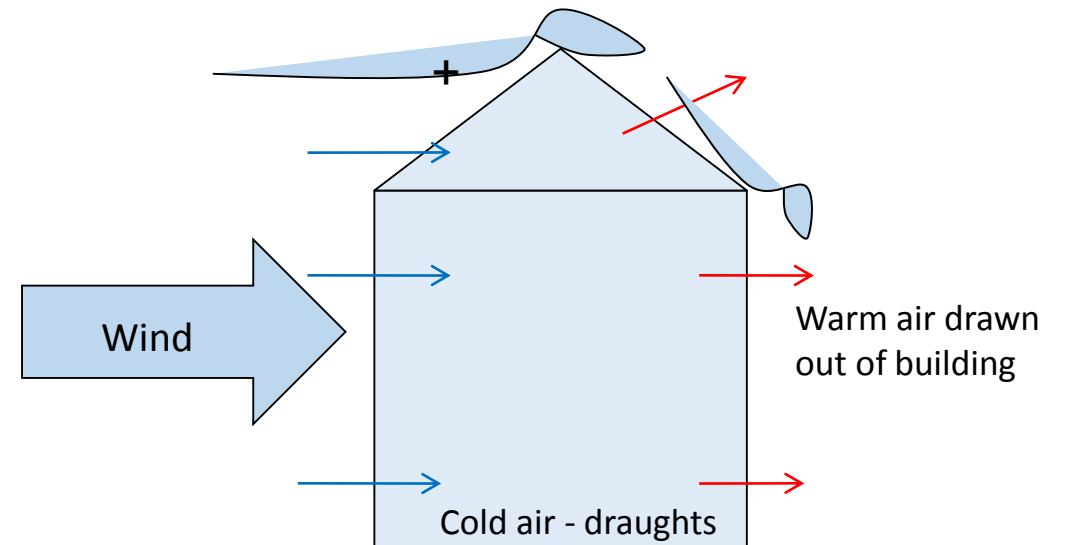
- The learning outcomes of this training module are to summarise:
 - The difference between the need for controlled ventilation and impacts of uncontrolled draughts
 - The typical air leakage paths in a home where draughts occur
 - The approach for sealing leakage paths
 - The materials used to seal leakage paths and the locations they are used
 - The costs and benefits of draught-proofing



Ventilation vs Draughts

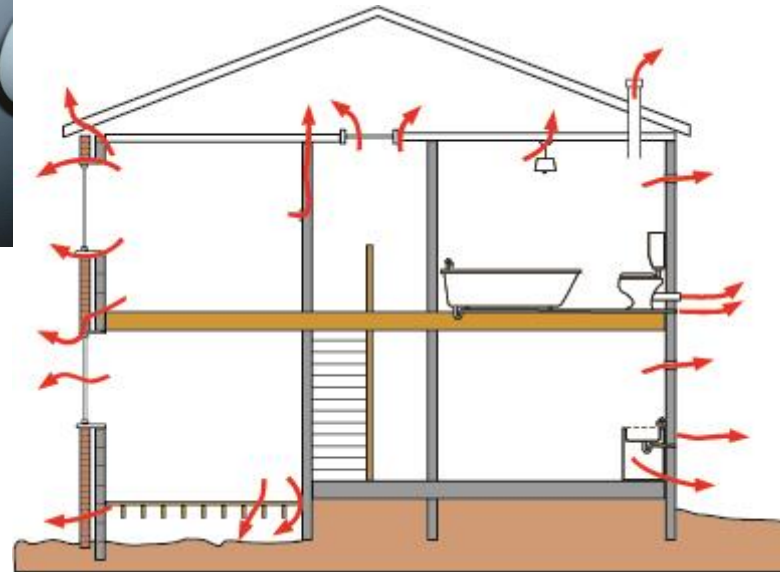
- Homes need controlled ventilation to:
 - Reduce condensation and damp
 - Disperse indoor pollutants
 - Provide adequate air supply for boilers etc.

- **But**, uncontrolled draughts:
 - waste heat and money as warm air is lost and cold air coming in is heated up
 - can make home feel cold and uncomfortable



Air leakage paths

- These can be found all around house where gaps in construction or uncovered openings, e.g.
 - Windows and doors
 - Letter boxes
 - Service pipes
 - Floorboards
 - Loft hatches
 - Light fittings etc.



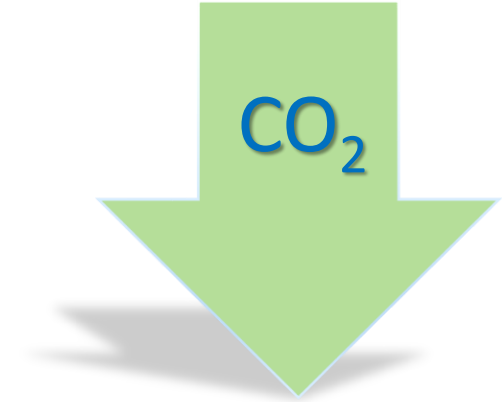
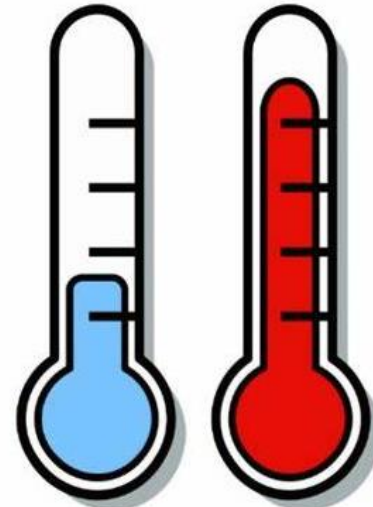
Sealing leakage paths - Approach

- Draught-proofing involves sealing gaps and openings using appropriate materials
- Can be done by householders competent in DIY but professional installers available
- Address damp or condensation issues in room first, e.g.
 - reduce incidence of drying clothes
 - extend use of extract fans
 - ensure window trickle ventilators are open etc.
- Do **not** block or close purpose-built ventilation openings such as air bricks, wall vents and window trickle ventilators
- Installing double glazing focuses on heat loss through glass – for further details see module ***Replacement windows***



Draught-proofing – Costs and benefits

- **Costs:**
 - Professional draught-proofing costs around **£200**
 - DIY cost is just materials which are readily available
- **Benefits:**
 - Save about **£20 per year**
 - Improved thermal comfort
 - Reduced carbon dioxide emissions



Draught-proofing – Further information

- Further information on draught-proofing can be found on the Energy Saving Trust (EST) website at: <https://energysavingtrust.org.uk/home-insulation/draught-proofing>
- The Simple Energy Advice (SEA) website has:
 - Draught-proofing video: <https://www.simpleenergyadvice.org.uk/pages/draught-proofing-your-home>
 - Register of draught-proofing installers to search: <https://www.simpleenergyadvice.org.uk/installer-search/D>