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your new **Home** A step-by-step guide to buying a home

Buyer's Guide

Cost savings now and into the future
 Quality and future-proofed to last
 Healthy and comfortable living

YOUR HOME • YOUR FUTURE • YOUR LIFESTYLE

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PHOTO: LIGHT HOUSE ARCHITECTURE & SCIENCE

Your New Home Buyer's Guide

A step-by-step guide to buying a home

EDITED BY PAUL NAGLE FROM COMMONSENSE SUSTAINABILITY SOLUTIONS
DEVELOPED IN COLLABORATION WITH SEE-CHANGE

Buying a home is an exciting process. This extract from the guide discusses the key choices you'll need to make in relation to buying or building your home, taking you through the steps involved, explaining what to look for and the important questions to ask.

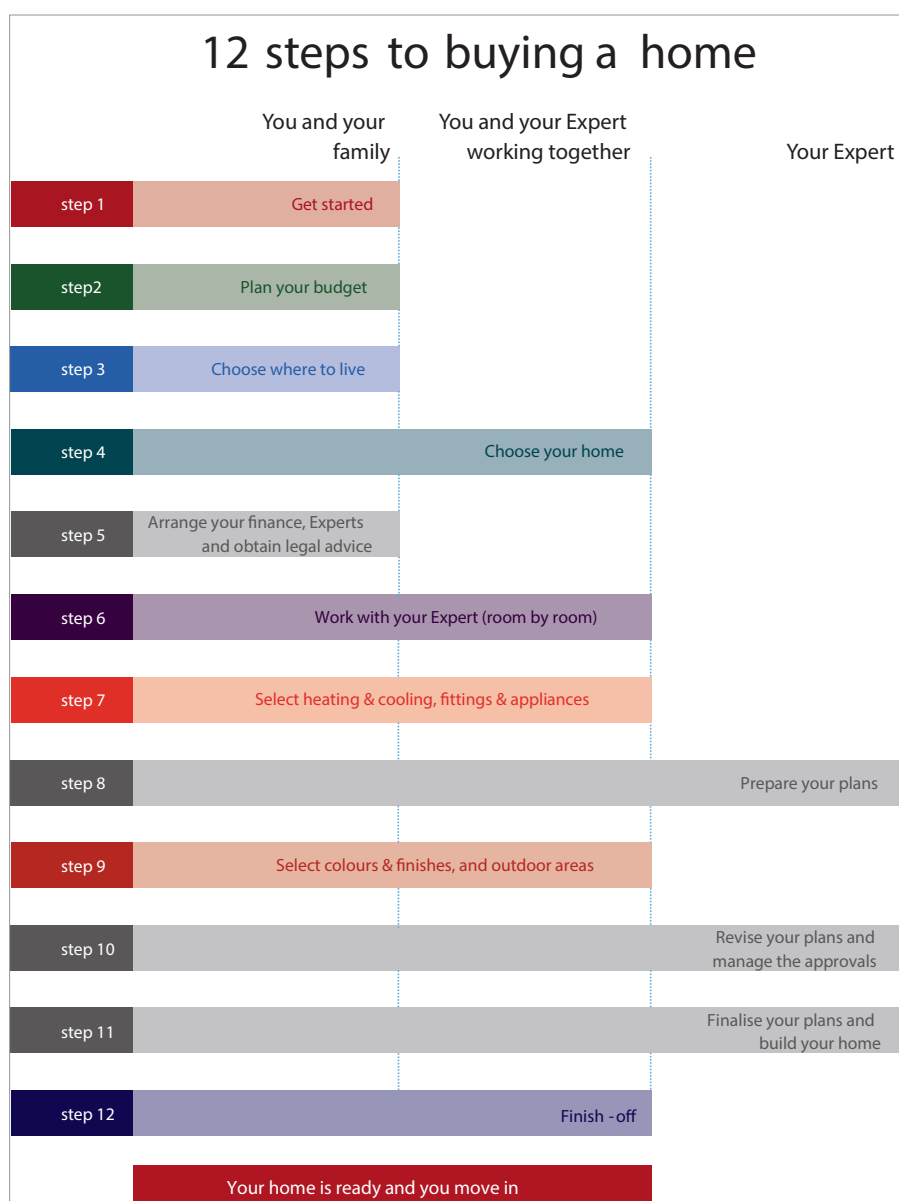
Step 1: Get started

START WITH A LIST

Write down your 'must haves' so you know what your priorities are. Buying a home is an emotional process and sometimes it's easy to fall in love with a particular house or house feature, forgetting about what you originally decided you needed to suit your lifestyle and budget. Your 'must haves' may include things like number of bedrooms, good natural light, separate play area for the kids and an outdoor living area. Consider too how these needs may change in 5, 10 or 20 years. For example, will grandparents be moving in or children moving out?

Next write down your 'wish list'. Your 'wish list' should include extras that would be of great value or use to you, like an alfresco dining area with shade in summer and good sunlight in winter, PV-powered electricity, heat pump hot water or a rainwater tank.

Your lists will also help you to prioritise what you really need, whilst staying within your budget. They will be extra handy when making decisions part way through your project.





Step 2: Plan your budget

FUTURE-PROOF YOUR HOME

Designing your home with future-proofing features will make sure it's resilient, efficient and able to cope with extreme weather events, increasing electricity and gas prices, and to always have power when you need it.

With the price of PV panels and batteries continuing to fall, it is a good idea to install a system when you build or make sure you have the wiring and enough unshaded roof space for panels to be installed in the future.

COOL ROOF, COOL HOUSE

As the climate warms, it's important to think about keeping your home cool. Whatever material you are using, select a light colour roof and cladding. Dark colours will heat your home and the area around your home, and will only help in winter if you have no insulation. By insulating the ceiling and walls, your home will be kept at a comfortable temperature and by using light colours, the areas around your home will be cooler. When choosing light colours, do be mindful of the possibility of glare to neighbouring properties.

Step 3: Choose where you live

TRUE NORTH

It is important to establish where 'true north' or 'solar north' is on your block. Most maps are drawn to magnetic north, which is what a compass shows. While

this is a good indicator, it needs to be adjusted to get the best orientation.

The adjustment figure for true north changes across the country. In Australia's eastern states, true north can be from 10-14 degrees west of magnetic north. In south west of Western Australia it is the opposite and can be 2-4 degrees to the east.

Finding true north is useful in all climates to capture or keep out the sun. Establish magnetic north and then find true north by adding or subtracting the 'magnetic variation' for your area, using the map in Your Home or data from Geoscience Australia.

Step 4: Choose your home

EAVES WORK WONDERS

A roof with eaves of at least 450mm or greater is a cheap and effective way to help keep your home cool in summer. The eaves help shade walls and windows from high-angle summer sun. Eaves of 600-900mm work particularly well on the north side with windows up to 2.1m high, providing effective summer shading and letting in winter sun without you having to do a thing. This happens because winter sun is at a lower angle than summer sun and comes in under the eaves.

Eaves can also help with waterproofing and can stop paint from cracking and fading in the sun.

INSULATION IS A WISE INVESTMENT

Although you don't see it, you'll feel the impact of good insulation every day. Your home will be quieter and more

comfortable to live in, plus you'll save money on energy bills. Talk to your Expert about increasing the amount of insulation in your home.

The right level of insulation for your home depends on the climate, but generally the more the better. Make sure you have reflective insulation under a tiled roof, or a combined foil/insulation product under a metal deck roof, as well as bulk insulation like batts above the ceiling, in the walls and if appropriate under the floor. The higher the 'R value' the better the insulation.

'We paid extra for insulation and removed downlights in the ceiling – it was worth every cent!'

GLASS HAS AN IMPACT ON BILLS

Many Australian homes have windows that are too large or simply have too many windows. Glass is the 'path of least resistance' for losing or letting in heat, so don't go overboard, as windows can have big impacts on your heating and cooling costs.

Up to 40% of a home's heating energy can be lost through windows and up to 87% of its heat can be gained. If you don't choose the right window size and type of glass, your home may feel like a sauna in summer and an igloo in winter.

The way the sun moves across the sky means some places are better for glass than others – glass facing north is ideal because you get lots of winter sun and all you need are eaves to shade it in summer. Glass facing east or west can overheat in summer and needs adjustable vertical external shading like shutters or louvres – deep shade pergolas can also work well in some cases. Glass facing south doesn't get



much sun and can make your home feel cold in winter.

If you live in a cold or temperate climate, consider high performing windows with a low U-value and high solar heat gain coefficient (SHGC), such as good quality double glazing. This will let the heat from the sun in while stopping the heat from inside the home from escaping, making your home more comfortable. Curtains and pelmets also help to keep warmth in. If you live in a warmer climate, consider reflective or tinted glass with a low SHGC – this will keep heat out.

Windows that open up wide make it easy to capture cooling breezes, while flyscreens, security screens and windows that lock when partly open allow you to let breezes in, keep out insects and keep the house secure.

Step 6: Work with your expert

THERMAL MASS

Concrete, bricks and tiles all have the ability to store energy and are called thermal mass. Combined with good solar passive design, these materials have the ability to moderate the internal temperature of a home.

If you have a concrete slab, north facing glass into living areas and appropriate eaves, then you are on your way to having a comfortable house in all seasons. Just remember that a burnished, polished or tiled slab will only be of benefit on the north if it is not covered by carpet or timber, which acts as an insulator and stops it soaking up heat

from the sun. If you want these coverings, use them on the south side of the house and choose rugs on the north side to make the most of the benefits of the thermal mass.

The bricks used on the outside of a house are also of no thermal mass benefit for internal room temperatures and only act as a rain barrier. Explore using reverse-brick veneer options, or replace some of the external walls with a light weight cladding and use these bricks instead for thermal mass inside the house – either as a feature wall between a living area and bedroom or just a feature wall in the main north facing living area.

Even homes using light weight floors on a sloping site can have at least one brick wall incorporated into their living area in a logical spot to create internal thermal mass.

Step 9: Select colours and finishes

FLOORING

Burnished or polished concrete can help keep indoor temperatures comfortable by storing heat from the sun – find out more about this in the Your Home Thermal Mass section. Tiled surfaces, and burnished or polished concrete, give a sleek modern look and work well in high-traffic areas. Make sure to choose slip-resistant surfaces in wet areas, such as bathrooms and laundries.

Timber, tiled or marmoleum surfaces are low maintenance and easy to clean. For allergy sufferers they're also a healthier alternative to carpet, which can trap dust and allergy-causing particles.

A wool, wool/bamboo blend or sisal carpet gives a warmth to south facing bedrooms and are best used in areas that are not getting direct sun.

If you use timber, make sure it comes from certified sustainably managed forests. You can get natural varnishes for timber floors, like tung oil or beeswax, that look great and don't give off low level toxic fumes like standard polyurethane finishes do.

HEALTHIER PAINTS

Regular paints give off low level toxic fumes that can cause breathing irritations and headaches. Painted surfaces can continue 'off gassing' fumes for months after painting. The good news is that many paint companies now offer healthier low emission products for the same cost. These are also known as 'low VOC' (volatile organic compounds) products.

If you want to avoid paint fumes altogether, look for paints that contain all-natural ingredients. These cost more, but are worth it if you have allergies or young children. ♦



Links & resources

◆ Your Home

Guide to environmentally sustainable housing, available free online.

www.yourhome.gov.au

◆ Your New Home Buyer's Guide

Full guide and a range of checklists.

www.see-change.org.au

www.commonsss.com.au