# What is the secret to eco-friendly homes?

### Explanatory video transcript

*(0:08)* What's the secret to eco-friendly homes?

*(0:12)* One way to help stop the sea level from getting higher is to reduce our carbon footprint.

*(0:19)* Every time we do something that uses energy, like when we switch on a light, heater, or air conditioner, we create a carbon footprint.

*(0:29)* But we can try to make our carbon footprint smaller by using less energy.

*(0:35)* One way to reduce our carbon footprint is to use less energy to maintain a good temperature in our homes.

*(0:43)* But how can we build better?

*(0:47)* What materials can we use to maintain the temperature of a house? Shall we investigate?

*(0:54)* We can use nature and the characteristics of some animals that live in extreme temperatures to get ideas about how best to insulate a house.

*(1:06)* The camel in the desert can support high temperatures during the day and low temperatures at night.

*(1:12)* The fine woolly coat insulates the body reducing it fluctuations.

*(1:20)* When we are cold, what do we use?

*(1:23)* For example, a very warm woollen jumper. A wool jumper has a lot of air between the fibres.

*(1:30)* We can think of insulators that also have plenty of air, such as straw, paper, cotton and, wool.

*(1:43)* Let's look at the results of our experiment. The longer it takes the ice to melt, the better the insulating material is.

*(1:52)* From all the materials studied wool was the one that best prevented energy transfers, being the best insulator tested.

*(2:03)* Buildings use large amounts of energy to heat and cool. We can use less energy by using good insulators to help regulate the temperature inside.

*(2:15)* After we build our house, we can paint it. What colour are we going to paint it?

*(2:24)* This could be the next investigation.

*(2:29)* Don't forget, it's important for all of us to take care of our planet.