**Insulation** Keeping Heat Energy In

**Concept Overview**

About the overview

The diagram below shows the science concepts outlined in this book and the level 1-2 companion book, *Keeping Warm*. The arrows show the links between the concepts and how they might build in sequence. A "big idea" shows how a fully developed understanding of the concepts might look. Such an understanding might not be achieved until level 7 or 8. The big ideas are included to help you build appropriate concepts with your children, whatever their age.

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**Big Idea**

- **In order to get heat energy, we need to burn other types of energy.**
- **Heat energy flows from where it’s hot to where it’s not.**
- **What insulating materials are made of and where they are located influence the rate at which heat energy flows.**

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**Science Concepts**

- **Mammals and birds get their energy and warmth by eating food.**
- **People survive in cold environments by taking in heat energy from other sources.**
- **A heating device needs a source of energy that it can burn in order to release heat energy, for mammals and birds, this source of energy is food.**

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