

Heat Charades

Ask pupils to act out objects that generate heat or release heat to their surroundings.

After pupils have guessed the object correctly, ask them to discuss whether the heat released is useful, wasted, or both.

Suggested answers are offered below, but many are up for discussion. Explore all answers.

Item	Useful Heat	Wasted Heat
Candle	No	Heat lost to surroundings
Kettle	To heat water	Water that's heated and not used, plus heat lost to the surroundings
Radiator	To keep people warm	If heating an empty room and heat lost to surroundings
Oven	To cook food	Remaining heat is wasted, unless it's used to heat the surroundings
Games console	No	Heat lost to surroundings
The Sun	It is needed for life on Earth to survive	Heat lost to space
Barbecue	To cook food	After food has been cooked
Firework	To launch and explode firework	Heat lost to surroundings
Cat	To keep the cat alive and healthy	Heat lost to surroundings
Toaster	To toast bread	Heat lost to surroundings
Washing machine	To wash clothes	Heat lost to surroundings, plus waste hot water after use
Tumble dryer	To dry clothes	Heat lost to surroundings
Mobile phone	No	Heat lost to surroundings





Item	Useful Heat	Wasted Heat
Hairdryer	To dry hair	Heat lost to surroundings
Straighteners	To straighten hair	Heat lost to surroundings
Television	No	Heat lost to surroundings
Engine	No	Heat lost to surroundings
Shower	To wash	Heat lost to surroundings
Drill	No	Heat is generated by friction and lost to surroundings
Car brakes	No	Heat is generated by friction and lost to surroundings
Hot water bottle	To keep people warm	Heat lost to surroundings
Lightbulb	No	Heat lost to surroundings
Boiler	To heat water	Heat lost to surroundings
Dishwasher	To wash dishes	Heat lost to surroundings, plus waste hot water after use
Fireplace	To keep people warm	If heating an empty room and heat lost to surroundings
Microwave	To heat food	Heat lost to surroundings
Iron	To remove creases from clothes	Heat lost to surroundings

