

Subject: Materials and Insulation

Week: 10

Class: year 9

Teacher: L Dunkerley

Learning Outcomes:

To know materials have different uses.
To look at materials and insulating Houses
To look at materials and Light

Activities:

Please email me if you need the code for Showbie to get access on your iPad:
ldunkerley@newbridgegroup.org

Insulation in the home

Watch the clip and try to answer the questions below

<https://youtu.be/ZXPvaroR2AI>

Evaluation:



I can't do it yet



I can nearly do it



I can do it



Radiation and energy escape

1 Complete the following sentences. Use the words below to fill in the gaps.

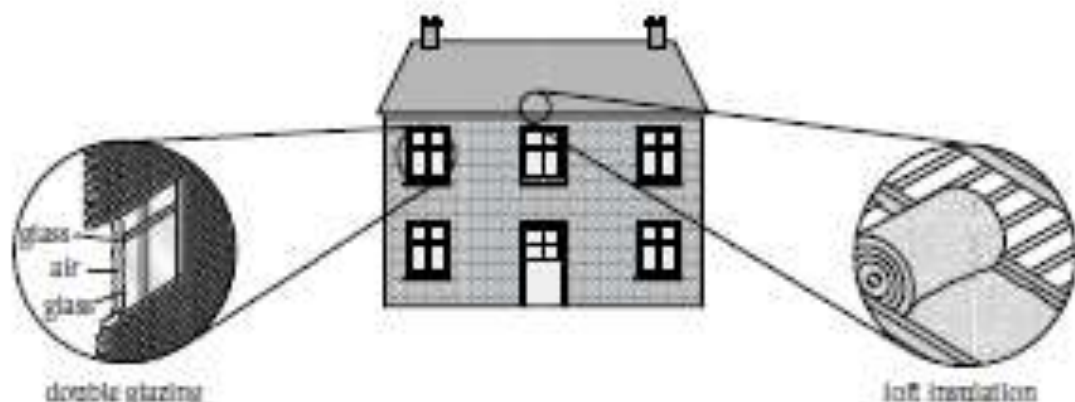
infrared radiation light medium vacuum

Heat travels through space from the Sun to the Earth. This is an example of heat travelling by _____.

This type of heat transfer requires no _____ – it can travel through a _____.

Another type of energy that travels like this is _____.

2



Complete the following sentences. Use the words below to fill in the gaps. You may use each word once or more than once.

air conductor convection insulator

Double glazing is designed to reduce heat loss from a house. The air between the sheets of glass is a poor _____, and the layer of air is too narrow for _____ currents to be set up.

Loft insulation works by trapping pockets of _____ between the fibres. The trapped air is a good _____ and because it is trapped it reduces heat loss by _____.

Materials and light

The word search contains 18 words used when describing the effect of light on materials. Look for the words listed below.

s	e	r	d	s	m	o	o	t	h	t	d	r	y	m
f	j	o	d	a	o	r	s	t	g	r	l	u	n	o
t	n	u	n	u	r	g	c	r	m	a	e	j	e	s
m	h	g	e	v	s	k	a	a	a	n	f	s	f	h
n	w	h	r	u	b	t	t	n	t	s	q	u	a	l
d	s	e	n	s	o	r	t	s	e	p	l	r	n	n
a	q	q	l	d	q	f	e	m	r	a	r	f	c	y
b	r	q	a	l	b	x	r	l	l	r	j	a	j	g
s	e	r	o	s	g	g	t	s	a	e	d	c	x	l
o	f	m	p	l	u	h	m	s	l	n	s	e	f	a
r	l	y	a	n	b	v	t	l	r	t	g	t	j	s
b	e	n	q	t	t	l	e	o	r	u	l	x	l	s
w	c	o	u	a	t	a	g	n	t	r	v	b	v	o
e	t	v	e	e	l	r	h	k	c	a	o	b	l	s
e	t	r	a	n	s	l	u	c	e	n	t	r	s	h

Here are the words:

absorb

light

mirror

rough

shiny

transmission

dark

material

opaque

scatter

smooth

translucent

glass

matt

reflect

sensor

surface

transparent