

## Be Green Series: Part 2 - Building Materials

### Lesson Plan for Elementary Level (Grades 1-5)

Prepared by Canadian Electrical Contractors' Association University of Toronto Student Chapter

#### Learning Objectives

From this lesson, students should be able to define the purpose of a house in controlling the movement of heat, water, and air; and be able to describe four different building materials (wood, brick, glass, and steel) in terms of their source, production, and uses for building a house. These concepts show the students that houses use energy right from the start when they are built and not just when they are used by people, which gets the students thinking about life cycle assessment of materials. These concepts will be conveyed through a short introductory video and interactive activities.

#### Required Material

To conduct this lesson plan, the following material is required:

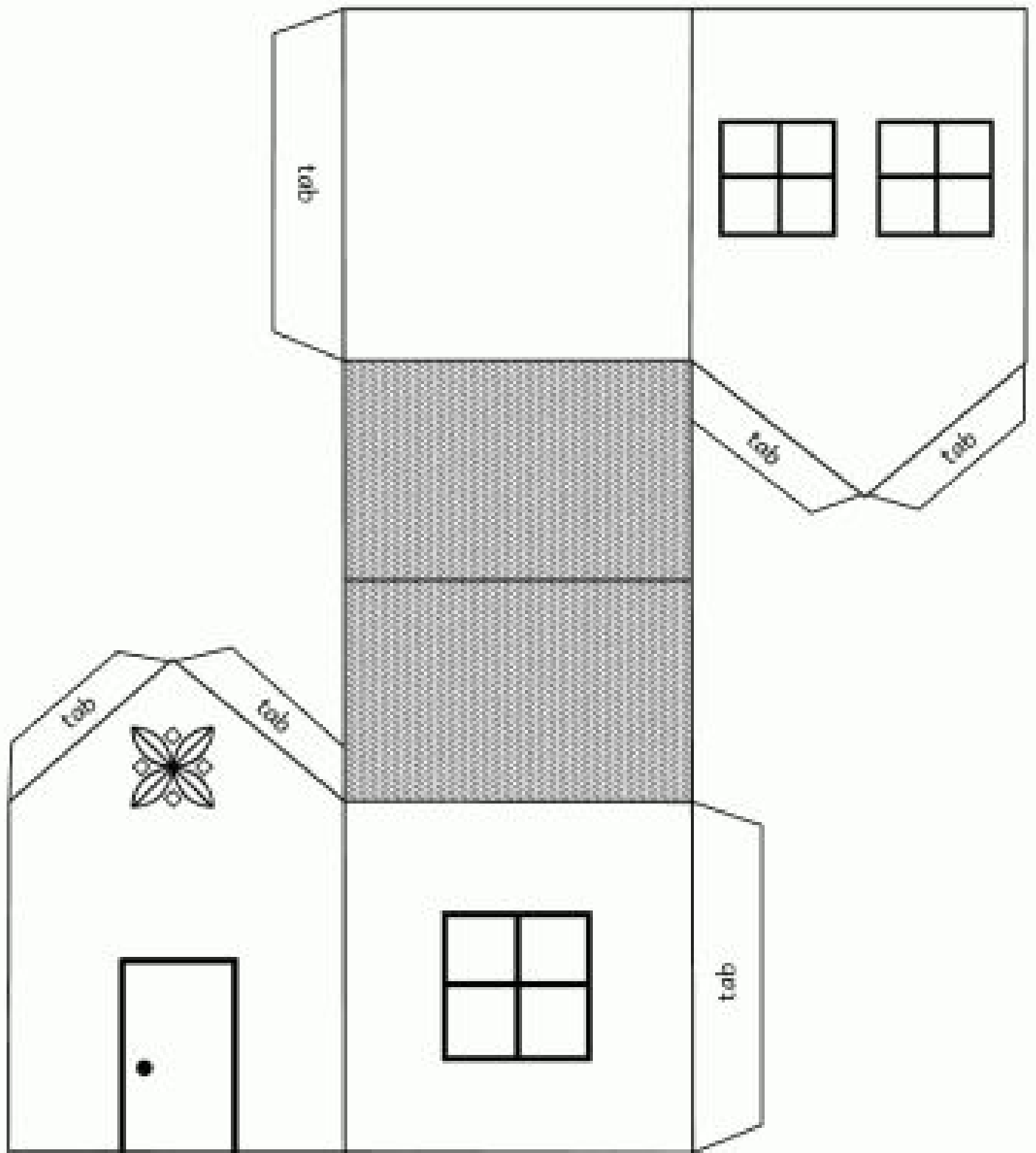
- Online access with audio and pdf editor (e.g. computer, tablet); printer is optional if students prefer hardcopy material
- Paper
- Writing utensils
- Additional crafts material as outlined for the "Make Your Own House" activity

#### Lesson Plan Instructions

1. Students should watch the introductory video titled Be Green Series: Part 2 - Building Materials, which can be found at <https://youtu.be/IWQ1dEQvXhw>. The video will provide a brief overview of the concepts from the "Learning Objectives".
2. Students can now begin to apply the building materials concepts from the introductory video by completing the "Make Your Own House" activity in either of the two ways described below. While doing either activity, the students should be able to identify from the video the parts of the house and their building materials.
  - a. Print out the house on Page 3 (Source: <https://tinyurl.com/ybnflbno>). This can be decorated in any way the students like. The students should then cut out the entire house with the tabs as one piece; fold along the solid lines; and connect the tabs to hold the edges together with glue or tape.
  - b. Instead, you can use materials found in your home for this and be as creative as you'd like! Some materials can include: popsicle sticks, toilet paper rolls, cardboard boxes, Lego pieces, plastic cups, and playdough. Feel free to check out this link for some inspiration: <https://www.pinterest.ca/pin/125045327132421907/>.
3. Older students can also complete the activity found on Page 4 (Source: <https://www.englishworksheets.com/houses-types-3.html>). First, students should match the type of house to their appropriate image, and then proceed to the word search. Parents can discuss with them the different building materials used for different types of dwellings.
4. Students can play the Building Materials Pictionary game with their families based on instructions below under the "Building Materials Pictionary Game" section.

## Building Materials Pictionary Game

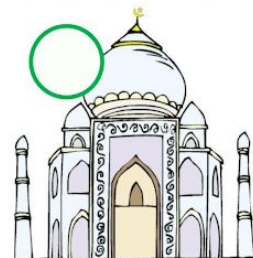
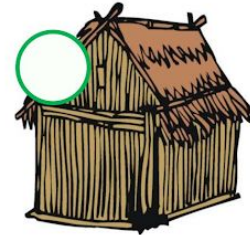
- *Material:* word cards (35), markers, drawing paper
- *Estimated game time:* 30-40 minutes
- *Number of players:* minimum of 4
- *List of words to guess:*
  - Glass, steel, wood, brick, factory, mine, pollution, heat, chemicals, fire, door, window, wall, roof, floor, house, water, sun, wind, tree, rain, rocks, sand, coal, clay, store, delivery, recycle, reuse, build, log, transport, melt, warm, cold
- *Time to draw/guess each word:* 40 seconds to 1 minute
- *Game Instructions:*
  - Create two teams, each with at least two players.
  - For each round, a player from one team picks a word card and draws a clue on the drawing paper to depict this word to their team member(s). Their team member(s) are to guess the word on the card based on the drawing. If the team member(s) guesses correctly, that team earns a point. Their round ends and the next team takes their turn in the same way.
  - Each team's round should last about 40 seconds to 1 minute.



# HOUSES/HOMES VOCABULARY WORD SEARCH PUZZLE

Find and circle the words in the word search puzzle and number the pictures

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



1. cottage
2. stilt house
3. igloo
4. farmhouse
5. hut
6. skyscraper
7. teepee
8. castle
9. palace
10. mansion
11. tent
12. cave
13. tree house
14. caravan
15. lighthouse
16. apartment building