

A photograph of the Earth as seen from space, showing the Western Hemisphere with North and South America. The planet is partially obscured by a blue, textured surface that appears to be a satellite or a large-scale architectural structure.

# ASHRAE: Building the HVAC&R Community



# Our Mission

Advancing HVAC&R

to serve humanity and promote a  
sustainable world



# Student Chapter Energy Champion 2013



# Drawing Challenge

The purpose of competition is to make the students become interested in energy efficiency and have a spirit to spread the message to other students via creative campaign media. The students are given a certain period to complete the drawing.

The students are allowed to make digital drawing, draw in canvas, or in sketch book. They could use any kind of painting tools: acrylic paints, poster paints, crayon/pastel, coloring pencils, etc.



# Jingle Challenge

Students are challenged to make an attractive jingle. The theme of the jingle is “Energy Efficiency is Good Investment”, while the duration was 30 seconds-3 minutes. They could compose jingle with their own music or change the lyrics of popular song. The students are allowed to work individually or in group to create the jingle. They could use their own language or English for the jingle.



# EE Puzzle and Word Search



School Energy Champion 2012 ran for 6 months

# ENERGY EFFICIENCY GAME



# Snake and Ladder Game

## HOME AND SCHOOL ENERGY CHAMPION SNAKES AND LADDERS GAME RULES

### Preparation

To play, place the board on the flat surface. Meanwhile, the question cards (Green and Red questions) should be placed face down outside of the board area after they have been shuffled. The game can be played by 3-5 players. Pick one person who is not playing to be the question reader. This person has to be neutral throughout the game. You can ask your teacher to be the reader.

Each player will get a traffic cone with a different color and place it on the "START" square. Then each player will throw the dice to see who will go first. The highest number will start, the second highest will go second, and so on. Players will roll the dice and move according to the amount of numbers indicated on the dice. The players will take turns and only have one chance to roll the dice, unless the dice did not land correctly in which case the player must throw again. More than one player can occupy a particular square.

### Game Philosophy

The goal of this game is to be the first player to reach the end by moving across the board from square 1 (START) to square 100 (FINISH). In order to reach finish line, the player has to answer questions, read facts related to Energy Efficiency, and also meet Bang Koser and the Energy Vampire. This Snake and Ladders style game will help you to learn more about Energy Efficiency.

### The Game

There are six different types of squares in this game: (1) Neutral Square; (2) Green Question Square; (3) Red Question Square; (4) Energy Vampire Square; (5) Bang Koser Square; and (6) Energy Efficiency Fact Square.

### Neutral Square and Energy Efficiency Fact

Landing on Neutral and Energy Efficiency Facts Square will have no effect on your position. The player stays on the square. If on an EE fact square, make sure you read the fact. It may also help you during the rest of the game.

### Green Question Square

If a player lands on the Green Question Square, he/she will pick a Green Card and give it to the reader with the text still faced down (or the reader can take the card). The reader will read the question and the player must try to answer without help from other players or students. If the player fails to answer correctly, his/her cone must go back one square. If they answer correctly, the reward is getting to stay on his/her square.

### Red Question Square

If a player lands in the Red Question Square, he/she will pick a Red Card on the top of the pile and give it to the reader with the text still faced down (once again, the reader can also take the card). The reader will read the question and the player must try to answer without help from other players or students.

**Ladder:** Only the player who answers the question correctly can climb the ladder to the square at the top of the ladder. The player stays on the original square if he/she fails to answer correctly.

**Snake:** As a reward for giving the right answer, the player can stay on the square. However if the player fails to answer correctly, his/her cone must slide down the snake to the square at the snake's head.

### Bang Koser Square

The player get to ride with Bang Koser's rocket and lands on the square at the top of the rocket.

### Energy Vampire Square

If a player lands on the Energy Vampire Square, his/her cone slides down to the square at the vampire snake's head.

### Team Option

It is also possible to play the game with teams. If using teams, it is best to use 2-4 teams. The game will work the same as with single players, except that players on each team can take turns moving the cone and can discuss the questions together before giving an answer.

The board consists of 100 squares arranged in a 10x10 grid. The squares are numbered 1 to 100. The board is color-coded as follows:

- Neutral Squares (Light Blue):** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.
- Green Question Squares:** 3, 13, 23, 33, 43, 53, 63, 73, 83, 93.
- Red Question Squares:** 4, 14, 24, 34, 44, 54, 64, 74, 84, 94.
- Energy Vampire Squares:** 10, 20, 30, 40, 50, 60, 70, 80, 90.
- Bang Koser Squares:** 22, 32, 42, 52, 62, 72, 82, 92.
- Energy Efficiency Fact Squares:** 41, 51, 61, 71, 81, 91.

The board features several snakes and ladders:

- Snakes:**
  - Snake 1: 100 to 98 (Red Question)
  - Snake 2: 92 to 89 (Green Question)
  - Snake 3: 87 to 84 (Red Question)
  - Snake 4: 74 to 71 (Red Question)
  - Snake 5: 68 to 65 (Green Question)
  - Snake 6: 53 to 50 (Red Question)
  - Snake 7: 48 to 45 (Red Question)
  - Snake 8: 34 to 31 (Red Question)
  - Snake 9: 28 to 25 (Red Question)
  - Snake 10: 14 to 11 (Red Question)
  - Snake 11: 10 to 7 (Red Question)
- Ladders:**
  - Ladder 1: 1 to 41 (Fact)
  - Ladder 2: 4 to 54 (Red Question)
  - Ladder 3: 9 to 99 (Red Question)
  - Ladder 4: 13 to 93 (Green Question)
  - Ladder 5: 17 to 77 (Green Question)
  - Ladder 6: 22 to 82 (Bang Koser)
  - Ladder 7: 26 to 86 (Bang Koser)
  - Ladder 8: 30 to 90 (Energy Vampire)
  - Ladder 9: 34 to 94 (Red Question)
  - Ladder 10: 38 to 98 (Red Question)
  - Ladder 11: 42 to 92 (Bang Koser)
  - Ladder 12: 46 to 96 (Green Question)
  - Ladder 13: 50 to 100 (Finish)





**ASHRAE Web-site**



**ASHRAE HEAD QUARTER**

**<http://www.ashrae.org>**

**ASHRAE INDONESIA CHAPTER**

**<http://www.ashrae.or.id>**