

Bridges and Mudslides

Forests are the nurturers of our world. Trees give so much to us and ask very little in return. Their roots hold the Earth's soil in place. Their green leaves use the carbon dioxide we produce to make fresh, clean oxygen for us to breathe. Their limbs offer us shade from the sun and give us a place to hang our swings. Can you imagine a world without forest? We would not be able to live on the Earth without them. Our forests are a very important part of our world, and by making good decisions about the environment we can help keep the forests strong and alive. By building BRIDGES between the environment and the way we live, we can avoid the MUDSLIDES of degraded ecosystems. Let us avoid the mudslides caused by logging and clear cutting our forests. Knowledge is the first step to building your own bridges and making a difference in the world. Build your knowledge and sharpen your ecological wit by playing this fun and interactive game.

This game contains questions related to climate change. Climate change is an important issue and by learning about it we can learn what needs to be done to make our world a cleaner and healthier. In the future look for other Bridges and Mudslides game cards that you can use with this game board.

Game Contents:

- 1 die
- Game instructions
- Game questions
- Game board
- 5 playing pieces

Rules:

All players chose a play piece and place them on the 'Start' circle. Each player takes a turn rolling the dice. The player who rolls the highest number gets to go first. To leave the start square you simply roll the die. On your second turn and for every turn after that, you have to correctly answer a trivia question before rolling the dice! If the last square you land on is a bridge, you get to advance on the bridge, if it is a mudslide then ahhhhhhh.....you have to travel to the bottom of the slide! The first player to arrive at 'End' circle wins!! GOOD LUCK Climate Change Fighters!

Blurt Cards:

Be on the lookout for 'Blurt' cards. If a 'Blurt' question is being asked, anyone can answer. The first person to blurt out the correct response wins a free roll. The game then continues and it is the next persons turn.

Tree Squares:

If you land on a tree square, you get a free turn. You have to answer a second trivia question, roll the dice and advance.

Questions: (Orange questions are **Blurt!** questions)

1. The gases above the earth that trap heat from the sun are called what?
Green House Gases
2. Which Green House Gas is the biggest contributor to Climate Change?
Carbon Dioxide
3. Scientifically, carbon dioxide is represented by which of the following?
a) C_2O b) $2CO_2$ c) CO_2 d) $2OC$
4. Carbon Dioxide is generated by humans burning _____ .
Fossil fuels
5. The effect whereby heat is trapped in the Earths atmosphere is called what?
The Green House Effect
6. Green House Gases cause the Earths temperatures to:
a) increase b) decrease c) stay the same
7. The Kyoto Protocol was generated in what country?
Japan
8. Climate Change is causing what in the Arctic?
a) melting glaciers b) endangering polar bears

9. True or False : Climate change affects people all over the world.

True

10. True or False: Canada has signed the Kyoto protocol?

True

11. True or False: The United States had signed the Kyoto Protocol?

False

12. True or False: Our climate is changing.

True

13. True or False: It is more energy efficient to ride your bike to school rather than get a drive:

True

14. True or False: Some people would have to move to new places if the Earth if the average temperature was increased by 4-5°C.

True

15. Which of the following are happening as a result of Climate Change?

- a) melting glaciers b) extreme weather
c) rising sea levels d) all of the above

16. True or False: Green House Gases are naturally occurring.

True

17. True or False: Green House Gases are not increasing because of human activity.

False

18. True or False: Green House Gases trap heat.

True

19. True or False: Scientists predict that if humans continue to produce lots of Green House Gases the Earths temperatures could increase by as much as 9°C.

True

20. Which of the following is NOT a Green House Gas?

- a) carbon dioxide b) water vapour c) oxygen d) methane

21. A change in average weather over time is:

- a) green house gases b) climate change
c) emissions d) carbon dioxide

22. Green House Gases trap what?

- a) oxygen b) flies c) the cold d) heat

23. The One-Tonne Challenge was created by:

- a) Japan b) Kyoto c) Government of Canada d) US government

24. Renewable energy is something that:

- a) is used only once b) generates green house gases emissions
c) can be used over and over without generating green house gas emissions
d) is bad for the environment

25. On average, how many tonnes of Green House Gases does the average Canadian produce in a year?

- a)1 b)11 c)5 d)20

26. What are scientists warning might become increased concerns in Britain:

- a) scorpions b) sharks c) west-Nile virus d) all the above

27. True or False: Human CO2 emissions are small compared with natural CO2 exchange.

True

28. True or False: Cows are guilty of speeding up global warming.

True

29. Roughly how fast is the Arctic warming in comparison to the rest of the world?

- a) same b) half as fast c) twice as fast d) three times as fast

30. Which country has the highest CO₂ emissions per capita?

- a) Canada b) Kuwait c) US d) United Arab Emirates

31. In what year did a freezing rainstorm in Eastern Ontario and Montreal result in ice "as thick as a person's wrist" covering wires and trees?

- a) 2005 b) 2000 c) 1998 d) 1990

32. The Green House Effect is:

- a) something to do with growing vegetables b) a necessary thing for life on Earth c) the result of human activity
d) a threat to animal life on Earth

33. Which of the following is likely to occur as the climate changes?

- a) more droughts in some regions, more floods in others
b) ecosystems would change and shift to the North c) sea ice would be thinner which would benefit transportation in the Arctic, but threaten the polar bear population d) all of the above

34. Which of the following is the greatest contributor to climate change?
a) carbon dioxide b) ozone c) methane d) halocarbons
35. Where did Canada actually sign the Kyoto protocol?
a) Kyoto, Japan b) Bonn, Germany c) New York, USA d) Ottawa, Canada
36. Transportation accounts for approximately what share of Canada's greenhouse gas emissions?
a) 10% b) 20% c) 30% d) 40%
37. There are many things you can do at home to reduce your energy consumption. For example, by switching your incandescent bulbs to fluorescent, your lights become:
a) dimmer b) more efficient, using 4 times less energy c) less efficient using 2 times more energy d) useless, you can't buy fluorescent bulbs that work in regular sockets
38. Products made from recycled materials:
a) require up to 40% less energy to make b) are always more expensive
c) are not available at most shopping centres d) require up to 40% more energy to manufacture
39. The most efficient speed to drive your car at is:
a) 90 km/h b) 50km/h c) 110km/h d) 30km/h
40. True or False: it is best to keep your car running when waiting for someone.
False
41. True or False: taking unneeded stuff out of the trunk will make your car more efficient.
True
42. The most important natural and man-made greenhouse gas is _____.
Carbon Dioxide
43. A greenhouse gas that comes from rotting garbage is _____.
Methane
44. What word means "clearing trees and forests"?
a) reforestation b) deforestation c) woodlot d) agriculture
45. Which of the following are two fossil fuels.
a) coal and oil b) fossils and bones c) coal and dirt d) snow and rain
46. Which of the following DO NOT produce fossil fuels:
a) driving your car b) driving a snowmobile c) driving a motorboat d) driving your bike
47. Which of the following will happen if the world gets warmer:
a) people will be more comfortable b) the world will be cleaner c) sea levels will rise d) polar bears will be happy
48. What do we call the blanket of air that surrounds the Earth?
a) biosphere b) atmosphere c) space d) ozone layer
49. When there are too many greenhouse gases and the Earth starts to heat up, scientists call that trend ...
a) perma-summer b) great weather c) global warming d) increased ultra-violet ray effect
50. True or False: I cannot reduce my greenhouse gas emissions at school.
False
51. The greenhouse gases that you emit will affect:
a) only you b) Canada c) the Arctic d) the world
52. True or False: Canadians drive more per person than Americans.
True
53. Which country is the world leader in using wind power?
a) Canada b) the Netherlands c) China d) Germany
54. True or False: About 50% of your home's energy bill is spent on heating and cooling.
True
55. True or False: It does not help your energy consumption to fill in cracks around windows and door.
False
56. What greenhouse gas do cows emit when they fart?
a) carbon dioxide b) oxygen c) methane d) water vapour
57. Which commonly used fossil fuel releases the fewest greenhouse gas emissions?
a) oil b) natural gas c) gas d) coal
58. By changing 5 lightbulbs in your house to compact fluorescent bulbs, you will save:
a) 0.3 tonnes b) 0 tonnes c) 1 tonne d) 0.1 tonnes
59. If you keep the tires in your car fully inflated and keep your car tuned how many tonnes of GHG's will you save?
a) 0 tonnes b) 0.45 tonnes c) 1 tonne d) 0.2 tonnes
60. Not leaving your car idling could save you as much as :
a) \$1.00/year b) \$25.00/year c) \$10.00/year d) \$70.00/year
61. If you were to replace your regular shower head with a 'low-flow' shower head, how many tonnes of GHG's would you save?

62. If a person always drives at the posted speed limit, they would save _____ dollars/year.
a) 20 b) 100 c) 10 d) 25
63. Installing weather stripping and caulking around doors and windows can save you money and reduce your green house gas emissions by:
a) 0.10 tonnes b) 0.50 tonnes c) 1 tonne d) 0 tonnes
64. How many green house gas emissions could you potentially save by lowering your thermostat by 5°C at night?
a) \$15/year b) \$90/year c) \$45/year d) \$100/year
65. Two things that people tend to leave on when they don't need to are lights and computers. How many green house gas emissions would be saved if these two things were turned off when not needed?
a) 0.5 tonnes b) 0.8 tonnes c) 1 tonne d) 0.05 tonnes
66. You could save _____ dollars/year if you used cold water when doing laundry :
a) 5 b) 18 c) 85 d) 21
67. What percentage of all carbon dioxide emissions come from cars?
a) 100% b) 50% c) 25% d) 10%
68. What is the main way humans release green house gas emissions into the atmosphere?
a) burning fossil fuels b) breathing c) using computers d) making hydro-electricity
69. True or False: Reducing our energy use will reduce green house gas emissions and improve air quality.
True
70. Which of the following is NOT a green house gas?
a) carbon dioxide b) oxygen c) water vapour d) methane
71. Climate change will not only have an impact on humans, but will also have an impact on:
a) whales b) dolphins c) seals d) all of the above
72. True or False: Climate change will affect lobsters.
True
73. Of the last twelve centuries, which has been the warmest?
a) 17th b) 18th c) 19th d) 20th
74. How many km's above the Earth does our atmosphere go?
a) 100km b) 200km c) 1000km d) 800km
75. True or False: Climate change is NOT influenced by energy from the sun.
False
76. During the last ice age the Earth's average temperature was how much lower than it is today?
a) 30°C b) 1°C c) 50°C d) 5°C
77. Compared to pre-industrial times, the amount of carbon dioxide in the atmosphere is higher, lower or the same?
Higher!
78. True or False: A small increase in the Earth's average temperature can have a BIG effect on our climate?
True
79. True or False: The hole in the Ozone layer and Climate Change are the same thing?
False
80. True or False: Using wind energy could be a cleaner alternative to using coal?
True
81. True or False: A warmer climate would NOT affect our rainfall patterns.
False
82. True or False: Without the natural greenhouse effect, the Earth would be too cold for most things to live.
True
83. True or False: Climate Change will NOT have an effect on plants.
False
84. True or False: Climate Change and weather are the same thing.
False
85. What amount do scientists predict sea will rise over the next 100 years?
a) 10-15 cm b) 15-95cm c) 0-10cm d) 95-100cm
86. Scientists use a CCM to study Climate Change. What is CCM?
a) Climate Change Model b) Climate Change Mountain
c) Climate Change Marker d) Crazy Climate Mandate
87. True or False: Climate Change will cause sea levels to rise because rain drops will get bigger.
False
88. What year was hottest year ever recorded?
a) 2004 b) 2000 c) 1998 d) 1995
89. True or False: If it weren't for humans, the Earth's climate would always remain the same?

False

90. How much more carbon dioxide is in the atmosphere now compared with 1890?

a) 100% B) 50% c) 25% d) 15%

91. Climate is the average temperature in an area over several _____.

a) days b) weeks c) centuries d) years

92. True or False: Climate Change is only an issue for people living in developed countries?

False

93. True or False: Climate Change will be more severe for countries who produce the most GHG's?

False

94. True or False: Nobody really knows if climate change is going to happen, this is just some prediction made by hysterical environmentalists.

False

95. True or False: The global climate's only going to go up a couple of degrees over the next century; that's not such a big deal.

False

96. True or False: Small changes can make a big difference when it comes to climate change.

True

97. Climate Change will have an effect on human health because of:

a) increased disease b) a shortage of clean freshwater

c) smog (poor air quality) d) all the above

98. Which of the following is NOT something to do when trying to lower your green house gas emissions?

a) ride your bike b) get a drive to school c) turn off your computer when you are not using it d) take shorter showers

99. The green house gas that humans release every time they exhale is _____.

Carbon dioxide

100. True or False: Canadians are among the highest water users in the world.

True