BUILDING A PASSIVE SOLAR HOME may advance the following

ENERGY LITERACY PRINCIPLES AND CONCEPTS

1 Energy is a physical quantity that follows precise natural laws.

1.1 Energy is a quantity that is transferred from system to system.

1.2 The energy of a system or object that results in its temperature is called thermal energy.

2 Physical processes on Earth are the result of energy flow through the Earth system.

2.2 Sunlight, gravitational potential, decay of radioactive isotopes, and rotation of the Earth are the major sources of energy driving physical processes on Earth.

2.3 Earth's weather and climate are mostly driven by energy from the Sun.

3 Biological processes depend on energy flow through the Earth system.

3.1 The Sun is the major source of energy for organisms and the ecosystems of which they are a part.

3.6 Humans are part of Earth's ecosystems and influence energy flow through these systems.

4 Various sources of energy can be used to power human activities, and often this energy must be transferred from source to destination.

4.1 Humans transfer and transform energy from the environment into forms useful for human endeavors.

4.2 Human use of energy is subject to limits and constraints.

4.6 Humans intentionally store energy for later use in a number of different ways.

5 Energy decisions are influenced by economic, political, environmental, and social factors.

5.1 Decisions concerning the use of energy resources are made at many levels.

5.2 Energy infrastructure has inertia.

5.4 Energy decisions are influenced by economic factors.

5.6 Energy decisions are influenced by environmental factors.

5.7 Energy decisions are influenced by social factors.

6 The amount of energy used by human society depends on many factors.

6.1 Conservation of energy has two very different meanings.

6.2 One way to manage energy resources is through conservation.

6.4 Earth has limited energy resources.

6.5 Social and technological innovation affects the amount of energy used by human society.

6.6 Behavior and design affect the amount of energy used by human society.

6.7 Products and services carry with them embedded energy.

6.8 Amount of energy used can be calculated and monitored.

7 The quality of life of individuals and societies is affected by energy choices.

7.3 Environmental quality is impacted by energy choices.

7.4 Increasing demand for and limited supplies of fossil fuels affects quality of life.

7.5 Access to energy resources affects quality of life.

7.6 Some populations are more vulnerable to impacts of energy choices than others.