1. Types of energy

**Fossil fuels**- a fuel such as coal or oil that is obtained from under the ground;

**Generate power**-  produce energy, usually electricity, that is used to provide light, heat, etc;

**Wind power**- electricity ​produced using wind ​turbines;

**Wind farm**- a ​group of ​wind ​turbines (= ​tall ​structures with ​blades that are ​blown by the ​wind) that are used for ​producing ​electricity;

**Nuclear power station**- a place where the production of the energy is released when the nucleus (= central part) of an atom is divided;

**Alternative form of energy**- one of two or more things that you can choose between types of energy;

**Wind turbine**- a machine with long parts at the top that are turned by the wind, used to make electricity;

**Unoccupied sites**- places have no one in it;

**Monitor wind direction** - control the way that wind is going or facing;

**Solar energy**- energy that uses the power of the sun;

**Hydropower**- ​hydroelectric ​power (= the ​production of ​electricity by the ​force of ​fast ​moving ​water).

**Examples:**

*China could ​meet a significant ​portion of its electricity ​needs through****wind ​power****.*

*In Europe people choose****solar energy****.*

*This company is going to place some****wind turbines****.*

Environment

**Pollution -** damage caused to water, air, etc by harmful substances or waste;

**Environment**- the air, land, and water where people, animals, and plants live;

**Defence**- protection, or something that provides protection against attack or criticism;

**Protect -** to keep someone or something safe from something dangerous or bad;

**Atmospheric**- relating to the air or to the atmosphere;

**Influence**- the power to affect how someone thinks or behaves, or how something develops;

**Plant**- **1.** a living thing that grows in the soil or water and has leaves and roots, especially one that is smaller than a tree;

**2.** a large factory where an industrial process happens;

**Earthquake**- a sudden movement of the Earth's surface, often causing severe damage;

**Forecast -** a report saying what is likely to happen in the future;

**Wastes**- things that are not wanted, especially what remains after you have used something;

**Enterprise**- a business or organization.

**Examples:**

*The new road may cause damage to the****environment.***

*A powerful****earthquake****struck eastern Turkey last night.*

*There are so many****plants****on this territory.*

Ecological problems

**Ecology**- the relationship between living things and the environment, or the scientific study of this;

**Concern**- to involve someone or be important to them;

**Air pollution**- damage caused to air by harmful substances or waste;

**Water pollution**-  damage caused to water by harmful substances or waste;

**Natural resources**- things such as ​minerals, ​forests, ​coal, etc. that ​exist in a ​place and can be used by ​people;

**Harmful**- causing or likely to cause harm;

**Technological -** relating to, or involving technology;

**Chemical**- relating to chemistry or chemicals;

**Litter**- pieces of paper and other waste that are left in public places;

**Plastic**- a light, artificial substance that can be made into different shapes when it is soft and is used in a lot of different ways;

**Glass**- a hard, transparent substance that objects such as windows and bottles are made of

acid rain;

**Species**- a group of plants or animals which share similar characteristics;

**Recycle**- to put used paper, glass, plastic, etc through a process so that it can be used again.

**Examples:**

*Environmental issues****concern****us all.*

*Some ​****natural ​resources****, such as ​natural ​gas and ​fossil ​fuel, cannot be ​replaced.*

*Many toys are made of****plastic****.*

*We****recycle****all our newspapers and bottles.*

Nature warning

**Industrial waste**- wastes from factories, plants;

**Famine**- when people living in a particular area do not have enough food for a long time causing suffering and death;

**Deforestation**- when all the trees in a large area are cut down;

**Overfishing**- ​catching too many ​fish in an ​area of the ​sea, so that there are not many ​fish ​left there;

**Flood**- when a place becomes covered in water;

**Volcanic eruption**- when a mountain with a large hole at the top explodes and produces hot, melted rock and smoke;

**Rising water levels**- increase the height of water;

**Hole in the ozone layer**- a hollow space in the layer of ozone high above the Earth's surface that prevents the sun from harming the Earth;

**Noise pollution**- noise, often from traffic, which upsets people where they live or work;

**Land pollution**- damage caused to land by harmful substances or waste;

**Oil spills**- when oil has come out of a ship and caused pollution;

**Ultraviolet radiation**- energy from the sun you cannot see, but it can be harmful.

**Examples:**

*We can see ​low ​fish ​stocks ​caused by****overfishing****.*

*The book shows simple things you can do to reduce****land pollution****.*

*People are concerned about****ultraviolet radiation****.*

Environmental problems

**Extinction of animals**- when types of animal no longer exist;

**Soil erosion**- destruction of the top layer of earth that plants grow in;

**Ozone depletion**- reduction of the amount of ozone;

**Loss of biodiversity**- when we do not have enough ​types of ​plants and ​animals that ​exist in a ​particular ​area or in the ​world ​generally, or the ​problem of ​protecting this;

**Depletion of natural resources** - reduction of natural resources;

**Global warming**- when the air around the world becomes warmer because of pollution;

**Greenhouse effect**- the gradual warming of the Earth's surface caused by an increase in pollution and gases in the air;

**Radioactive contamination**- pollution containing harmful radiation.

**Examples:**

*We are afraid of****radioactive contamination****.*

*People try to do something to avoid****ozone depletion****.*

*Have you ever heard about****loss of biodiversity****?*

Packaging

**Green packaging**- the paper, box, etc that something is inside so that it can be sold or sent somewhere but eco-friendly;

**Dispose of**- to get rid of something, especially by throwing it away;

**Carton**- a container for food and drink that is made from strong, stiff paper or plastic;

**Wrapper**- a piece of paper or plastic that covers something that you buy, especially food;

**Waste disposal -** an ​electrical ​machine, ​connected to a ​kitchen ​sink, that ​cuts up ​food ​waste so that it will ​flow ​easily through the ​pipes;

**Environmentally-friendly**- not damaging the environment;

**Recyclable**- able to be recycled;

**Biodegradable**- when substances decay naturally without damaging the environment;

**Decompose**- decay and gradually destroy;

**Landfill site**- a place where waste material is buried under the earth;

**Effluent**- ​liquid ​waste that is ​sent out from ​factories or ​places where ​sewage is ​dealt with, usually ​flowing into ​rivers, ​lakes, or the ​sea;

**Disaster**- something that causes a lot of harm or damage.

**Examples.**

*Glass is****recyclable****.*

*90 ​percent of American ​rubbish is ​dumped in****landfill ​sites****.*

***Effluents****from ​local ​factories are ​finding ​their way into the ​river*.

The problems of rare species

**Inflict on**- to make someone suffer by doing something unpleasant to them;

**Wipe out**- to destroy something completely;

**Evolution**- the way in which living things gradually change and develop over millions of years;

**Survive**-  to continue to live after almost dying because of an accident, illness, etc;

**Endangered**- animals or plants which may soon not exist because there are very few now alive;

**On the brink of extinction**- on the point close to the situation when animals or plants will not exist;

**Ivory**- a hard, white substance from the tusks (= long teeth) of some animals, such as elephants (= large, grey animals);

**Pesticide**- a chemical that is used to kill insects which damage plants;

**Toxic**- poisonous;

**Habitat**- the natural environment of an animal or plant;

**Ecosystem**- all the living things in an area and the way they affect each other and the environment;

**Reverse**- to change a situation or change the order of things so that it becomes the opposite;

**Wildlife**- animals, birds, and plants living in their natural environment;

**Deleterious**- harmful.

**Examples:**

*Tourism is damaging the fragile****ecosystem****of the reef.*

*Many species are****on the brink of extinction****.*

*Elephants were being hunted for their****ivory.***

Climatic problems

**Climatology**- the ​scientific ​study of ​general ​weather ​conditions;

**Climate**- the weather conditions that an area usually has;

**Ice age**- a ​time in the past when the ​temperature was very ​cold and ​glaciers (= ​large ​masses of ​ice) ​covered ​large ​parts of the ​earth;

**Glacial period**- a ​time in the past when the ​temperature was very ​cold and ​glaciers ​covered ​large ​parts of the ​earth;

**Climatic**- relating to the weather conditions that an area usually has;

**Implication**- a result or effect that seems likely in the future;

**Unprecedented**- never having happened before;

**Drought**- a long period when there is no rain and people do not have enough water;

**Greenhouse gas**- a gas which causes the greenhouse effect, especially carbon dioxide (= a gas produced when carbon is burned) summit;

**Industrialized**- having a lof of industry;

**Scaremongering** - full of fear;

**Emission**- when gas, heat, light, etc is sent out into the air, or an amount of gas, heat, light, etc that is sent out.

**Examples:**

*A severe****drought****ruined the crops.*

*This unusual warming of the Earth has been caused by****greenhouse gases****.*

*Carbon dioxide****emissions****will be reduced by 20%.*