

# Technology Card: Temperature Sensor



## What It Does:

**Records the temperature of solids, liquids, and gases.**



## Possible Uses:

**To measure hydrothermal activity and convection currents in Earth's mantle.**

**To measure exothermic chemical reactions (those that give off heat).**

**To record average land and sea temperatures.**

**To measure melting and boiling points.**



## Careers That Might Use this Sensor:

- Construction Professionals
- Ecologists
- Material Scientists
- Food Industry Professionals



# Technology Card: Conductivity Sensor



## What It Does:

**Measures the level of particles not from living things in a solution.**



## Possible Uses:

**To measure dissolved solids (ions) in run-off from erosion or from agriculture.**

**To determine the chemical composition of land or water.**

**To monitor water quality.**



## Careers That Might Use this Sensor:

- Water Technicians
- Ecologists
- Electrical Engineers
- Agricultural Professionals
- Hydrologists



# Technology Card: Light Sensor



## What It Does:

Measures the level of solar energy, UV light, and light intensity.



## Possible Uses:

To monitor seismic activity.

To map an area.

To measure the properties of rocks such as light absorption or reflection.



## Careers That Might Use this Sensor:

- Ecologists
- Geologists
- Material Scientists
- Meteorologists
- Agricultural Professionals



# Technology Card: Pressure Sensor



## What It Does:

Measures the pressure of gases and containers.



## Possible Uses:

To use pressure changes to predict earthquakes, volcanic eruptions, and sinkholes.

To understand how different rock types are formed.



## Careers That Might Use this Sensor:

- Meteorologists
- Chemists
- Medical Professionals
- Oceanographers
- Mining Professionals



# Technology Card: Voltage Sensor



## What It Does:

Measures the electrical energy generated by a battery or turbine.



## Possible Uses:

To measure the composition of rocks.

To record the amount of energy generated by the flow of wind or water.



## Careers That Might Use this Sensor:

- Electrical Engineers
- Renewable Energy Engineers
- Mechanics
- Physicists



# Technology Card: Current Sensor



## What It Does:

Measures the amount of electricity flowing in a system.



## Possible Uses:

To measure the composition of rocks.

To measure electrical currents within the Earth.



## Careers That Might Use this Sensor:

- Electrical Engineers
- Renewable Energy Engineers
- Mechanics
- Physicists



# Technology Card: Turbine Sensor



## What It Does:

Measures the amount of energy generated by wind or water.



## Possible Uses:

To measure the speed of air or water to predict the impact of erosion in an area.

To record the amount of energy generated by the flow of wind or water.



## Careers That Might Use this Sensor:

- Renewable Energy Engineers
- Meteorologists
- City Planners
- Ecologists



# Technology Card: CO<sub>2</sub> Sensor



## What It Does:

Measures the concentration of CO<sub>2</sub> in the atmosphere.



## Possible Uses:

To understand past climatic conditions.

To measure air quality and pollution levels.

To monitor the impact of volcanic eruptions.

To measure ecosystem productivity.



## Careers That Might Use this Sensor:

- Ecologists
- Renewable Energy Engineers
- Meteorologists
- Chemists



# Technology Card: Accelerometer



## What It Does:

Records acceleration (the change in an object's speed per second) in three dimensions (X,Y,Z).



## Possible Uses:

To measure the speed, force, and direction of seismic waves.

To record the force of gravity.

To test ground surface stability and movements.



## Careers That Might Use this Sensor:

- Geologists
- Physicists
- Engineers
- Mining Professionals

