# Earth Systems and Resources

AP Environmental Science · Vocabulary in context

| Word | Example |
|---|---|
| **lithosphere** | The **lithosphere** is the Earth's solid outer layer. |
| **plates** /pleɪts/ | The Earth's surface is broken into large **plates**. |
| **plate tectonics** /pleɪt tek'tɒnɪks/ | **Plate tectonics** explains why the plates move. |
| **plate boundaries** | Earthquakes happen at **plate boundaries**. |
| **divergent** /daɪ'vɜːdʒənt/ | At a **divergent** boundary, plates move apart. |
| **convergent** /kən'vɜːdʒənt/ | At a **convergent** boundary, plates move together. |
| **transform** /træns'fɔːm/ | At a **transform** boundary, plates slide past each other. |
| **subduction** | In **subduction**, one plate sinks under another. |
| **fault** | A **fault** is a crack where rocks move. |
| **hot spots** | Hawaii formed over one of the Earth's **hot spots**. |
| **soil** /sɔɪl/ | Plant roots grow in **soil**. |
| **parent material** | Soil forms from the **parent material** below it. |
| **weathering** /'weðərɪŋ/ | **Weathering** breaks rock into small pieces. |
| **humus** /'hjuːməs/ | **Humus** is dark material made from rotting plants. |
| **horizons** /hə'raɪznz/ | Soil has layers called **horizons**. |



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| **erosion** /ɪˈrəʊʒn/ | Bare hillside soil is easily lost through **erosion**. |
| **overgrazing** /ˌəʊvəˈgreɪzɪŋ/ | **Overgrazing** removes plant cover and exposes soil. |
| **turbidity** /tɜːˈbɪdɪti/ | Mud raises the **turbidity** of river water. |
| **texture** /ˈtekstʃə/ | Sand gives soil a rough **texture**. |
| **porosity** /pɔːˈrɒsɪti/ | Soil with high **porosity** has lots of space between its grains. |
| **permeability** /ˌpɜːməˈbɪlɪti/ | Sandy soil has high **permeability**: water flows through quickly. |
| **water holding capacity** | Clay has a high **water holding capacity**. |
| **loam** /ləʊm/ | **Loam** mixes sand, silt and clay. |
| **soil texture triangle** | The **soil texture triangle** names soils by their sand, silt and clay. |
| **atmosphere** /ˈætməsfɪə/ | The **atmosphere** is the layer of gases around Earth. |
| **troposphere** /ˈtrɒpəsfɪə/ | Most weather occurs in the **troposphere**. |
| **stratosphere** /ˈstrætəsfɪə/ | The **stratosphere** contains the protective ozone layer. |
| **ozone layer** /ˈəʊzəʊn ˈleɪə/ | The **ozone layer** absorbs much harmful ultraviolet radiation. |
| **mesosphere** | The **mesosphere** is above the stratosphere. |
| **thermosphere** | The **thermosphere** is very hot but has very little air. |



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| **exosphere** | The **exosphere** is the outermost layer of the atmosphere. |
| **global wind patterns** /ˈgləʊbl wɪnd ˈpætnz/ | **Global wind patterns** move heat from the equator to the poles. |
| **convection cell** | Warm air rises and cool air sinks in a **convection cell**. |
| **Coriolis effect** /ˌkɒrɪˈəʊlɪz ɪˈfekt/ | The **Coriolis effect** makes winds curve as the Earth spins. |
| **prevailing winds** | **Prevailing winds** blow mostly from one direction. |
| **trade winds** | The **trade winds** blow toward the equator. |
| **westerlies** | The **westerlies** blow from west to east. |
| **watershed** /ˈwɔːtəʃed/ | A **watershed** is all the land that drains into one river. |
| **divide** /dɪˈvaɪd/ | A **divide** is high ground that separates two watersheds. |
| **runoff** /ˈrʌnɒf/ | **Runoff** is rain that flows over the ground into rivers. |
| **floodplain** | A **floodplain** is flat land beside a river. |
| **insolation** | **Insolation** is the sunlight that reaches the Earth. |
| **seasons** /ˈsiːznz/ | The **seasons** are caused by the Earth's tilt. |
| **tilt of the Earth's axis** | The **tilt of the Earth's axis** gives us summer and winter. |



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| Word | Example |
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| **climate** /ˈklaɪmət/ | The desert has a hot, dry **climate**. |
| **rain shadow** /reɪn ˈʃædəʊ/ | A **rain shadow** is the dry side of a mountain. |
| **windward** | The **windward** side of a mountain gets lots of rain. |
| **leeward** | The **leeward** side of a mountain is dry. |
| **El Niño** /el ˈniːnjəʊ/ | **El Niño** can weaken upwelling near Peru. |
| **La Niña** /læ ˈniːnjə/ | During **La Niña**, the eastern Pacific becomes cooler than normal. |
| **upwelling** /ˈʌpwəlɪŋ/ | **Upwelling** brings cold water full of nutrients up to the surface. |



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