

<p>單元八：空氣，水，與土地的互動</p>	<p>Unit 8: Interactions of Air, Water, and Land</p>
<p>主要觀念:</p> <p>8.1: 觀察，探討，及紀錄物理風化及化學風化的例子</p> <p>8.2: 描述侵蝕的過程（例如，地心引力，風，和水的活動）如何改變地球表面</p> <p>8.3: 探討及觀察地球物質的沉積</p> <p>8.4: 描述水在地球上的循環（如，地下水，水流）</p> <p>8.5: 研究天災對生物的正面及負面的影響：地震，火山，颶風，龍捲風，水災，火災</p>	<p>Key Ideas:</p> <p>8.1: Observe, investigate, and record examples of physical and chemical weathering</p> <p>8.2: Describe how erosional processes (e.g., action of gravity, wind, and water) cause surface changes to the land</p> <p>8.3: Investigate, measure, and observe the deposition of earth materials</p> <p>8.4: Describe and illustrate the natural processes by which water is recycled on earth (e.g., ground water, runoff).</p> <p>8.5: Investigate the negative and positive impact of extreme natural events on living things: earthquakes, volcanoes, hurricanes, tornadoes, floods, fires</p>
<p>單元大綱</p>	<p>Unit Overview</p>
<p>什麼叫做風化？風化對地球有什麼影響？有多少種不同的風化？</p> <p>石頭被風化以後侵蝕就產生了。什麼叫做侵蝕？侵蝕的原因是什麼？</p> <p>地球上到處都有河流。河一邊流動，一邊把泥土和石頭夾帶著，沉積因此就產生了。河流的沉積導致地形的產生，如三角洲。</p> <p>雨水落在地上的時候，有些被土壤吸收，有些流到地底深處直到岩石層就不能再流了，因此就積在那裏。不久之後就形成了地下</p>	<p>What is weathering? What will weathering do to the earth? How many different types of weathering are there?</p> <p>What happens after weathering breaks down rock into sediment? Erosion takes over. What is erosion? What causes erosion?</p> <p>Rivers are found all over earth. As rivers flow, they carry soil and rock. As a river moves, deposition occurs. In deposition, rivers drop bits of rock and soil along the way. River deposition builds landforms such as deltas.</p> <p>When rain falls on land, some of it soaks into the soil and then moves deeper into the ground. It moves down until it gets to solid</p>

<p>水。沒有被土壤吸收的水成爲逕流，逕流流到小溪，然後流到河裏。</p>	<p>rock. Because the water cannot move through the rock, it begins to collect there. After a while, a lot of collected water forms a body of groundwater. Rain that is not soaked up by the soil becomes runoff. The runoff flows into creeks and streams, which flow into rivers.</p>
<p>天災通常給生物帶來負面的影響，但是有時也帶來正面的影響。</p>	<p>Extreme natural events usually have negative impacts on living things but sometimes they have positive impacts.</p>

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主要觀念 8.1：觀察，探討，及紀錄物理風化及化學風化的例子	Key Idea 8.1: Observe, investigate, and record examples of physical and chemical weathering.
科學名詞：1. 風化（把石頭分解成小塊）2. 礦物質（構成石頭的物質）	Scientific Terms: 1. weathering (The breaking of rock into smaller pieces.) 2. minerals (Materials of which rocks are made.)
<p>內容：</p> <p>風化就是大自然把石頭及山丘分解成小塊的過程。風化改變了地球表面的形狀。水滴在石頭的縫裏，水結冰了以後就膨脹，石頭因此裂開為多塊，這種風化叫做物理風化。石頭變為許多小塊以後只有大小及形狀改變，構成石頭的物質仍是一樣，沒有改變。</p> <p>你看過人行道上的石頭被樹根撐裂嗎？植物也會造成物理風化。植物的根鑽過石頭裏的小裂縫，根長大就把石頭裂成小塊。</p> <p>化學風化不但把石頭解體而且把石頭裏的礦物質改變，增加或減少。含有鐵的石頭會變成紅色是因為鐵會生鏽，鐵跟水碰在一起就會生鏽。</p> <p>另外一種化學風化是由二氧化碳而來。二氧化碳是空氣裏的一種氣體。它跟雨水混在一起落在石頭上。二氧化碳混了水就形成一種微酸。這種微酸慢慢把石頭溶掉，也改變了構成石頭的物質。</p>	<p>Content:</p> <p>Nature's way of breaking up rocks and mountains is called weathering. Weathering helps to change the surface of the earth. Water drips into cracks in a rock. When the water freezes, it expands. The rock cracks and splits even more. This kind of weathering is called physical weathering. As the rock breaks into small pieces, only its size and shape change. The minerals that the rock is made of do not change.</p> <p>Have you seen a sidewalk cracked by the roots of a tree? Plants also cause physical weathering. Plant roots work their way through small cracks in a rock. As the roots grow, they break the rock into smaller pieces.</p> <p>Chemical weathering not only breaks down rocks but also changes the minerals in the rock. It changes, adds to, or removes a rock's minerals. Rocks that contain iron can turn red. This is because the iron rusts. Rusting occurs when iron and water come in contact with each other.</p> <p>Another kind of chemical weathering is done by carbon dioxide. Carbon dioxide is a gas in the air. It mixes with rain and falls on rocks. The mixture of carbon dioxide and water makes a weak acid. The rocks are slowly worn away by this acid. The</p>

	acid changes the minerals that the rock is made of.
複習： 1. 物理風化與化學風化的不同在哪裏？ 2. 空氣裏的氣體如何把石頭分解成小塊？ 3. 在石頭裏的水結冰以後石頭會如何改變？	Review: 1. What is the difference between physical weathering and chemical weathering? 2. How do gases from the air help break down rocks? 3. How do rocks change when the water in them freezes?

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主要觀念 8.2：描述侵蝕的過程（例如，地心引力，風，和水的活動）如何改變地球表面	Key Idea 8.2: Describe how erosional processes (e.g., action of gravity, wind, and water) cause surface changes to the land.
科學名詞：1. 侵蝕 2. 內陸 3. 沙洲 4. 障壁島	Scientific Terms: 1. erosion 2. inland 3. bars 4. barrier islands
<p>內容： 侵蝕是地球表面的物質，如石頭和土壤，被風和水移動及分解。</p> <p>水和風在移動的過程中接觸到地面的物質，漸漸改變了地的形狀。地心引力使石頭掉落的時候也導致地面的侵蝕。</p> <p>風可以改變地球表面的外貌。在乾燥的地方及沿海的沙岸，土壤非常的乾燥及鬆動，也沒有什麼植物。風就把它們吹起來帶走。</p> <p>風把沙吹到多石的表面，沙就把石頭的表面吹得坑坑洞洞。風也把沙帶到沙丘上。</p> <p>海浪也沖擊岩岸的石頭。當岸上的石頭被沖倒以後岩岸就移往內陸，被海浪沖出的石頭拱門及石柱就被留下。海往內陸移動，這些拱門及石柱就留在岸邊。</p> <p>海浪也把沙岸的形狀改變。它們把沙從一個地方沖到另一個地方，這個沙的侵蝕及沉澱就造成了海灘，沙洲以及沿岸的障壁島。</p> <p>河水往下流，在流的時候就帶著泥土及石</p>	<p>Content: Erosion is the moving and breakdown of earth materials, such as rocks and soil by wind and water.</p> <p>Water and wind move earth materials around and change the shape of the land they touch. Even gravity causes erosion of land and earth materials when earth and rocks fall.</p> <p>Wind can affect the way Earth's surface looks. In dry areas and along sandy coast, soil is dry and loose. There aren't many plants. Wind lifts particles and carries them.</p> <p>Wind carries sand into rocky surfaces. The wind-blown sand makes pits and grooves in rock. Wind also carries sand and deposits it in dunes.</p> <p>Waves break down rocky cliffs. As the cliffs crumble, they move farther inland. Structures such as stone arches and pillars are left behind. As the sea moves inland, the structures are left offshore.</p> <p>Waves also change the shape of sandy coastlines. They remove sand from some areas and deposit it in other places. This erosion and deposition of sand creates beaches, and bars, and barrier islands along the shore.</p> <p>Rivers flow downhill. They carry along soil</p>

<p>塊。這些石塊打鬆了河流兩旁的石頭。河流因此侵蝕了土地。經過長時間，河流就深深的切入石頭裏。科羅拉多河流經大峽谷就形成了峽谷。</p>	<p>and pieces of rock. These pieces of rock hit and loosen other rocks along the sides of the rivers. Rivers erode the land. After a long time, rivers can cut very deeply into rock. The Colorado River flows through the Grand Canyon and forms the canyon.</p>
<p>複習：</p> <ol style="list-style-type: none">1. 什麼叫做侵蝕？2. 海灘如何形成？3. 大峽谷的形成是因為地心引力，或是風，或是水的活動所造成的？	<p>Review:</p> <ol style="list-style-type: none">1. What is erosion?2. How are beaches created?3. What action formed the Grand Canyon? The gravity? Or the wind? Or water?

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主要觀念 8.3：探討及觀察地球物質的沉積	Key Idea 8.3: Investigate, measure, and observe the deposition of earth materials.
科學名詞：1. 沉積（地球物質的沉下或留下）2. 淤泥	Scientific Terms: 1. Deposition (the dropping or settling of earth materials) 2. silt
<p>內容：</p> <p>下雨天的時候你會看到在人行道上的一灘灘的水。通常這些都是泥水。雨水把土帶到水灘裏。等到雨停了，水蒸發以後，土就留了下來。沉積就是空氣，水，與土的相互影響的結果。</p> <p>流得很快水流從山坡上流下來，有時還會把大塊石頭夾帶下來。這些大塊石頭被激流沖擊就互相碰撞，因此造成許多小塊破片。時間一久，水就把石頭磨成沙子。沙子再漸漸磨成淤泥。土壤就是由沙子，淤泥及其它地裏的小碎片組成的。有些在土壤裏的東西是由生物的遺體分解而成的。</p> <p>水流和風慢下來以後，它們所攜帶的沙子，淤泥，和泥土就被留下來，這就是沉積。沉積以後，這些小塊的東西就形成了土壤，遠遠離開了它們原來的地方。</p> <p>土壤形成以後，它們可能又會被侵蝕，然後沉澱在別的地方。石頭與沙子被激流挾帶，沖刮地面。急流把細的土壤從山上沖到河裏。同時，風也把乾的土壤從地上吹起來帶到遠處。</p>	<p>Content:</p> <p>During rain, you may have watched runoff water collect in puddles on the sidewalk. Often the water in puddles is muddy. The rainwater picks up soil and carries it to the puddle. After the rain stops, the water evaporates, but the dirt carried into it is left behind. This is what happens during deposition. Deposition results from the interaction among air, water, and land.</p> <p>Runoff water moving downhill flows fast. Fast-flowing rivers may move even large rocks. Driven by rushing water, rocks bash into each other. Small chips of rock break off. Over time, water grinds rocks into sand. Sand wears into tiny pieces called silt. Soil is made up of sand, silt, and other broken-down pieces of earth material. Some material in soil was broken down from the bodies of living things.</p> <p>When moving water and wind slow down, they drop the pieces of sand, silt, and earth that they are carrying. After this deposition, these tiny pieces of earth form soil miles from where they were picked up or broken down.</p> <p>After forming, soil can erode and be deposited elsewhere. Carried by a fast-flowing river, rocks and sand scrape and batter the land. Rushing water washes the finest soil from mountains into rivers. Meanwhile, wind picks up dry soil from the land and carried it for miles.</p>

<p>複習:</p> <ol style="list-style-type: none">1. 什麼是沉積?2. 土壤是由什麼組成的?	<p>Review:</p> <ol style="list-style-type: none">1. What happens during deposition?2. What is soil made of?
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<p>主要觀念 8.4：描述水在地球上的循環（如，地下水，水流）</p>	<p>Key Idea 8.4: Describe and illustrate the natural processes by which water is recycled on earth (e.g., ground water, runoff).</p>
<p>科學名詞：1. 降雨（量）（從大氣層降下來的水以雨，雪，或冰雹的形式出現）2. 蒸氣（在水蒸發的時候所形成的一種無色，無味的氣體）</p>	<p>Scientific Terms: 1. precipitation (Water that falls from the atmosphere in the form of rain, snow, hail, or sleet.) 2. vapor (A colorless, odorless gas that forms when water evaporates.)</p>
<p>內容： 水被太陽曬熱以後就變成一種看不見的氣體叫做水蒸氣。水蒸氣比空氣輕，所以就升到空中。這個過程叫做蒸發。</p> <p>蒸發：從液體轉變為氣體的過程。</p> <p>當熱的蒸氣升到空中，冷卻下來，集成小水點或雪片，然後形成了雲。這個過程叫做冷凝。</p> <p>冷凝：從氣體轉變成固體或液體的過程。</p> <p>越來越多的小水點集中在雲裏，雲就越來越重。很快地在雲裏的水就成為雨點落下。在很冷的地方，雨冰凍起來，成為雪，雨雪，或冰雹。</p> <p>地底下的水集中在山洞裏，其中一大部分繼續往下滲透，直到被一層堅硬的固體擋住。這水就留在沙粒的空隙或石頭的裂縫裏，形成了一層地底下的水叫做地下水。</p> <p>地下水：在地底下被水泡透的沙及石頭，是</p>	<p>Content: When water is heated by the sun, it slowly turns into an invisible gas called water vapor. The vapor is lighter than air, so it rises high up into the sky. This process is called evaporation.</p> <p>Evaporation: The process of changing from a liquid into a gas (or vapor).</p> <p>As the heated vapor rises into the sky, it cools, collects into tiny droplets or snowflakes, and forms clouds. This is called condensation.</p> <p>Condensation: The process of changing from a gas (or vapor) into a solid or liquid.</p> <p>As more droplets join the clouds, the clouds get heavier and heavier. Soon, the water begins to fall from the clouds as raindrops. In very cold places, the rain freezes and turns to snow, sleet, or hail.</p> <p>Underground water can collect in caverns, but most of it seeps down until it reaches a layer of solid material it can't go through. The water then fills the spaces between grains of sand and cracks in rocks, forming an underground layer of water called an aquifer.</p> <p>Aquifer: The underground layer of water-</p>

<p>井的源頭。</p> <p>留在地面的水會往湖裏，小溪裏及河川裏流。最後，大部分在地面上的水及地底下的水都會流回海洋。</p> <p>我們可以從地下水或湖泊及河流裏取得所需要的水。</p> <p>一個供給給鄉鎮或城市所需的水的湖叫做水庫。水庫貯藏水。</p> <p>水被使用過以後就流到下水道。在下水道的水接著就流到廢水處理廠用化學物質處理並清潔，這種水叫做處理過的廢水。處理過的廢水再被送回河流，湖泊及海洋，重新再一次被蒸發，冷凝，降雨的過程。</p> <p>水的循環：一個連續不斷的過程。在這個過程裏，水從地面被蒸發，在空氣中被冷凝，再以雨，雪，冰雹的形式回到地面。</p>	<p>soaked sand and rock that acts as a water source for a well.</p> <p>A lot of the water that stays on the surface runs off into lakes, streams, and rivers. Eventually, most of the water that falls to earth makes its way to the oceans. Even the water that goes underground finds its way to the oceans.</p> <p>One place we get our water from is the aquifer – underground water. The other place is from lakes and rivers.</p> <p>A lake that supplies water to a town or city is called a reservoir. A reservoir is where water is stored until it is needed.</p> <p>After we use the water, it goes down the drain into the sewer. The sewage water then goes to a treatment plant where it is cleaned and treated with chemicals. This is called reclaimed wastewater. Most of the reclaimed wastewater is sent back into rivers, lakes and oceans, where it can go through the whole water-cycle process of evaporation, condensation, and precipitation all over again.</p> <p>Water cycle: A continuous process during which water evaporates from the earth, condenses in the air, returns to earth in the form of precipitation, evaporates again, and so on.</p>
<p>複習：</p> <ol style="list-style-type: none"> 1. 什麼叫做蒸發？ 2. 什麼叫做冷凝？ 3. 井水是從哪裏來的？ 4. 處理過的廢水被送去哪裏？ 	<p>Review:</p> <ol style="list-style-type: none"> 1. What is evaporation? 2. What is condensation? 3. Where does well water come from? 4. Where does reclaimed wastewater go?

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科學名詞：1. 地殼 2. 岩漿	Scientific Terms: 1. earth's crust 2. lava
<p>內容：</p> <p>地震是一個突然而強烈的地殼移動。</p> <p>火山是地殼的開口，地底下的蒸氣，灰燼，氣體，熔岩從開口處噴出來。</p> <p>颶風是一個帶有強風的熱帶暴風。</p> <p>龍捲風是一個漏斗狀會旋轉的雲。</p> <p>水災是大量無法控制的水流。</p> <p>地底下的移動會造成地震。劇烈的震動使建築物及橋梁都倒下。滾燙的岩漿，蒸氣，及灰燼都從火山噴出來。岩漿及灰燼可以把在火山附近的生物燒毀或掩埋。但是世上有一些最美麗的山及島嶼都是火山爆發以後才產生的。還有，岩漿形成的土壤很肥沃，可以種植農作物。</p> <p>颶風可以吹過幾百幾千哩。它的風沒有龍捲風那樣強烈，但是颶風可以有幾百哩寬，可以吹好幾天。狂風把樹連根拔起，把建築物夷平。暴雨可能把整個社區沖走。許多生物都會被毀滅。</p>	<p>Content:</p> <p>An earthquake is a sudden, strong movement of earth's crust.</p> <p>A volcano is an opening in earth's crust from which underground steam, ash, gas, and hot liquid rock escape.</p> <p>A hurricane is a tropical storm with strong winds.</p> <p>A tornado is a cloud shaped like a funnel that spins.</p> <p>A flood is an overflowing body of water.</p> <p>Underground movements can result in earthquakes. Violent shaking topples buildings and bridges. Hot lava, steam, and ash from underground can erupt from volcanoes. The lava and ash can burn or bury living things near the volcano. Yet some of earth's most beautiful mountains and islands have been created by erupting volcanoes. The soil formed from lava is rich in nutrients and good for crops.</p> <p>Hurricanes can travel hundreds or thousands of miles. Their winds are less violent than those of tornadoes, but hurricanes may be hundreds of miles wide and may last for several days. Terrific winds uproot trees and level buildings. Heavy rainfall may wash whole neighborhoods away. Many living things are destroyed.</p>

<p>龍捲風從夾有雷電的烏雲裏呈漏斗狀延伸出來。強風在一個圓圈裏快速地旋轉。當一個龍捲風吹過一個城鎮，它所接觸到的一切都可能被毀。</p> <p>大自然不停的運轉。有時大自然的變化強烈，對生物可能有非常大的影響。在有些情形之下太多的好東西反而造成天災。例如說，所有的生命都需要雨水，但是太多的雨水就造成水災。水災會淹死生物，摧毀房屋，把土壤沖走。太多的雨水會把地上的物質從山上滑下，把房屋及生物毀滅。但是水災有時也帶來好處。有的時候農夫要靠河水淹過河岸及周圍的山谷來灌溉，也靠河裏沉積的土來種植。</p>	<p>The tornado's whirling funnel of air extends down from the thundercloud. Winds spin in a tight circle at terrific speeds. When a tornado whirls through a town, it may destroy everything it touches.</p> <p>Natural processes take place all the time on earth. Sometimes natural events may be extreme with major impacts on living things. In some cases, extreme natural events are caused by too much of a good thing. For example, all life depends on rain, but too much rain can cause a flood. Floods can drown living things, destroy their homes, and wash away soil. Too much rain can bring tons of earth material sliding down a hill, crushing homes and living things beneath it. Yet floods can be helpful at times too. Along some rivers, farmers count on the rivers to flood their banks and the surrounding valley. The floods water the land and deposit silt for farming.</p>
<p>複習：</p> <ol style="list-style-type: none"> 1. 颶風為什麼危險？ 2. 水災的正面影響是什麼？ 3. 火山的正面及負面影響是什麼？ 	<p>Review:</p> <ol style="list-style-type: none"> 1. What makes a hurricane dangerous? 2. What is the positive impact of a flood? 3. What are the negative and positive impacts of a volcano?

答案:	Answer Key
單元八	Unit 8
8.1	8.1
<ol style="list-style-type: none"> 1. 風化就是大自然把石頭及山丘分解成小塊的過程。水滴在石頭的縫裏，水結冰了以後就膨脹，石頭因此裂開為多塊，這種風化叫做物理風化。石頭變為許多小塊以後只有大小及形狀改變，構成石頭的物質仍是一樣，沒有改變。化學風化不但把石頭解體而且把石頭裏的礦物質改變，增加或減少。含有鐵的石頭會變成紅色是因為鐵會生鏽，鐵跟水碰在一起就會生鏽。 2. 二氧化碳是空氣裏的一種氣體。它跟雨水混在一起落在石頭上。二氧化碳混了水就形成一種微酸。這種微酸慢慢把石頭溶掉，也改變了構成石頭的物質。 3. 水滴在石頭的縫裏，水結冰了以後就膨脹，石頭因此裂開為多塊。 	<ol style="list-style-type: none"> 1. Nature's way of breaking up rocks and mountains is called weathering. Water drips into cracks in a rock. When the water freezes, it expands. The rock cracks and splits even more. This kind of weathering is called physical weathering. As the rock breaks into small pieces, only its size and shape change. The minerals that the rock is made of do not change. Chemical weathering not only breaks down rocks but also changes the minerals in the rock. It changes, adds to, or removes a rock's minerals. Rocks that contain iron can turn red. This is because the iron rusts. 2. Carbon dioxide is a gas in the air. It mixes with rain and falls on rocks. The mixture of carbon dioxide and water makes a weak acid. The rocks are slowly worn away by this acid. The acid changes the minerals that the rock is made of. 3. Water drips into cracks in a rock. When the water freezes, it expands. The rock cracks and splits even more.
8.2	8.2
<ol style="list-style-type: none"> 1. 侵蝕是地球表面的物質，如石頭和土壤，被風和水移動及分解。 2. 海浪把沙從一個地方沖到另一個地方，這個沙的侵蝕及沉澱就造成了海灘。 3. 水，因為河水往下流，在流的時候就帶著泥土及石塊。這些石塊打鬆了河流兩旁的石頭。河流因此侵蝕了土地。經過長時間，河流就深深的切入石頭裏。科羅拉多河流經大峽谷就形成了峽谷。 	<ol style="list-style-type: none"> 1. Erosion is the moving and breakdown of earth materials, such as rocks and soil by wind and water. 2. Waves remove sand from some areas and deposit it in other places. This erosion and deposition of sand creates beaches. 3. Water, because rivers flow downhill, they carry along soil and pieces of rock. These pieces of rock hit and loosen other rocks along the sides of

<p>8.3</p> <ol style="list-style-type: none">1. 沉積就是空氣，水，與土的相互影響的結果。下雨天的時候在人行道上有一灘灘的水。通常這些都是泥水。雨水把土帶到水灘裏。等到雨停了，水蒸發以後，土就留了下來。2. 水流和風慢下來以後，它們所攜帶的沙子，淤泥，和泥土就被留下來，這就是沉積。沉積以後，這些小塊的東西就形成了土壤，土壤就是由沙子，淤泥及其它地裏的小碎片組成的。 <p>8.4</p> <ol style="list-style-type: none">1. 蒸發就是從液體轉變為氣體的過程。水被太陽曬熱以後就變成一種看不見的氣體叫做水蒸氣。水蒸氣比空氣輕，所以就升到空中。這個過程叫做蒸發。2. 冷凝就是從氣體轉變為固體或液體的過程。當熱的蒸氣升到空中，冷卻下來，集成小水點或雪片，然後形成了雲。這個過程叫做冷凝。3. 地底下的水集中在山洞裏，其中一大部分繼續往下滲透，直到被一層堅硬的固體擋住。這水就留在沙粒的空隙或石頭的裂縫裏，形成了一層地底下的水。在地底下被水泡透的沙及石頭，是井的源頭。4. 處理過的廢水再被送回河流，湖泊及	<p>the rivers. Rivers erode the land. After a long time, rivers can cut very deeply into rock. The Colorado River flows through the Grand Canyon and forms the canyon.</p> <p>8.3</p> <ol style="list-style-type: none">1. Deposition results from the interaction among air, water, and land. During rain, runoff water collects in puddles on the sidewalk. Often the water in puddles is muddy. The rainwater picks up soil and carried it to the puddle. After the rain stops, the water evaporates, but the dirt carried into it is left behind. This is what happens during deposition.2. When moving water and wind slow down, they drop the pieces of sand, silt, and earth they are carrying. After this deposition, these tiny pieces of earth form soil. Soil is made up of sand, silt, and other broken-down pieces of earth material. <p>8.4</p> <ol style="list-style-type: none">1. The process of changing from a liquid into a gas (or vapor). When water is heated by the sun, it slowly turns into an invisible gas called water vapor. The vapor is lighter than air, so it rises high up into the sky. This process is called evaporation.2. The process of changing from a gas (or vapor) into a solid or liquid. As the heated vapor rises into the sky, it cools, collects into tiny droplets or snowflakes, and forms clouds. This is called condensation.3. Underground water can collect in caverns, but most of it seeps down until it reaches a layer of solid material it can't to through. The water then fills the spaces between
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海洋，重新再一次被蒸發，冷凝，降雨的過程。

8.5

1. 颶風可以吹過幾百幾千哩。它的風沒有龍捲風那樣強烈，但是颶風可以有幾百哩寬，可以吹好幾天。狂風把樹連根拔起，把建築物夷平。暴雨可能把整個社區沖走。許多生物都會被毀滅。
2. 水災有時也帶來好處。有的時候農夫要靠河水淹過河岸及周圍的山谷來灌溉，也靠河裏沉積的土來種植。
3. 地底下的移動會造成地震。劇烈的震動使建築物及橋梁都倒下。滾燙的岩漿，蒸氣，及灰燼都從火山噴出來。岩漿及灰燼可以把在火山附近的生物燒毀或掩埋。但是世上有一些最美麗的山及島嶼都是火山爆發以後才產生的。還有，岩漿形成的土壤很肥沃，可以種植農作物。

the grains of sand and cracks in rocks forming an underground layer of water called an aquifer. The underground layer of water-soaked sand and rock acts as a water source for a well.

4. Most of the reclaimed wastewater is sent back into rivers, lakes and oceans where it can go through the whole water-cycle process of evaporation, condensation, and precipitation all over again.

8.5

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2. Floods can be helpful. Along some rivers, farmers count on the rivers to flood their banks and the surrounding valley. The floods water the land and deposit silt for farming.
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