**Water Cycle**

Water constantly moves among the oceans, the atmosphere, the solid Earth, and the biosphere. This unending circulation of Earth’s water supply is
the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

**Processes involved in the cycle are:**

\*Precipitation

\*Evaporation

\*\_\_\_\_\_\_\_\_\_\_\_—the movement of surface water into rock or soil through cracks and pore spaces

\*Runoff

\* **\_\_\_\_\_\_\_\_\_\_\_**-the release of water into the atmosphere from plants through the ground

 **Earth’s Water Balance**

Balance in the water cycle means the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ over Earth equals the amount of water that evaporates.

\_\_\_\_\_\_\_\_% Ocean Water (Salt)

\_\_\_\_\_\_\_\_% Freshwater

**Streamflow**

The ability of a stream to erode and transport materials

 depends largely on its velocity.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the slope or steepness of a

 stream channel.

**Channel Characteristics:**

--The **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is the course the water in a stream follows.

--Shape, size, and roughness

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of a stream is the volume of water flowing past a certain point in a given unit of time

**Changes from Upstream to Downstream**

While gradient decreases between a stream’s headwaters and mouth, discharge \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Profile:**

• Cross-sectional view of a stream

• From head (source) to mouth

- Profile is a smooth curve

- Gradient\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from the head to the mouth

A\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a stream that empties into another stream

**3 Factors that increase downstream**

1. Velocity
2. Discharge
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Factors that decrease downstream include:

* Gradient, or Slope
* Channel \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Base Level- lowest point to which a stream can erode

Two General Types: 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_- Sea Level 2.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_- or Local

A stream in a broad, flat-bottomed valley that is near its base level often develops a course with many bends called \_\_\_\_\_\_\_\_

**Erosion:**

Streams generally\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ their channels, lifting loose particles by abrasion, grinding, and by dissolving soluble material.

**Deposition:**

* A stream’s **\_\_\_\_\_\_\_\_\_\_\_\_\_** is solid material too large to carry in suspension.
* The **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of a stream is the maximum load it can carry.
* Deposition occurs as streamflow drops below the critical settling velocity of a certain particle size. The deposits are called **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** are an accumulation of sediment formed where a stream enters a lake or ocean
* A **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** parallels a stream and helps to contain its waters, except during flood stage

**Narrow Stream Valleys**

A narrow \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ valley shows that the stream’s primary work has been down cutting toward base level.

Two Features often include: 1. Rapids 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Wide Stream Valleys-**Stream is near base level.

* Downward erosion is less dominant.
* Stream energy is directed from side to side

The **\_\_\_\_\_\_\_\_\_\_\_\_** is the flat, low-lying portion of a stream valley subject to periodic flooding.

**Wide Valleys**

Features often include: Meanders, \_\_\_\_\_\_\_\_\_\_\_\_\_ and Oxbow Lakes

**Floods and Flood Control**

A **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** occurs when the discharge of a stream becomes so great that it exceeds the capacity of its channel and overflows its banks.

Measures to control flooding include artificial levees, flood control dams, and placing limits on\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Drainage Basins** A **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** is the land area that contributes water to a stream.

A\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is an imaginary line that separates the drainage basins of one stream from another.