## Flow Diagram of Eutrophication

Include increase in nitrates and phosphates leading to rapid growth of algae, accumulation of dead organic matter, high rate of decomposition and lack of oxygen. The role of positive feedback should be noted in these processes.

Eutrophication can have a devastating effect on rivers and streams. Normally nutrients such as N and K limit plant growth. Human inputs of N and K into water systems cause rapid plant growth follwed by death and subsequent loss of dissolved oxygen in the water

There are six MAJOR stages:

THE STAGES ARE ALL MIXED UP BELOW. CUT AND PASTE THE STAGES IN THE CORRECT ORDER TO CREATE A FLOW DIAGRAM. MUST ADD PICTURES!

Oxygen is used up quickly by the huge numbers of microbes as they respire.

There is an increase in the BOD and a decrease in Dissolved oxygen.

Fertilizers containing Nitrogen used by farmers are leached from the soil into lakes and rivers.

Domestic inputs such as sewage containg phospahtes empty into lakes and rivers

Fish and other aquatic animals are suffocated due to lack of oxygen in the water.

When the fertilizers and domestic waste enter lakes and rivers, algal utilize these extra nutrients, growing rapidly. There is an increase in primary productivity

Microbes feed on the dead plant material, resulting in them rapidly increasing in number.

These “algal blooms” block out sunlight for plants below them causing the death of these plants.

Answer Key:

