Waterfalls
GENERALIZED LANDSCAPE REGIONS OF NEW YORK STATE

by Charles Burrows
Sediment transport by streams
Waterfalls

To discover how a waterfall is formed press ‘next’.
Meandering-stream processes
Flooding and levee development

Terraces

Floodplain
**Ox-bow Lake**

To discover how an Ox-bow Lake is formed press 'next'.
HORIZONTAL SORTING IN A STREAM

As a stream gradually slows down, it deposits the larger, rounder, denser particles first, upstream. Smaller sediments are carried farther downstream. The smallest particles are carried the farthest, eventually to the sea. This separation of sediment sizes from upstream to downstream is called horizontal sorting.

UPSTREAM
STEEP GRADIENT
HIGH VELOCITY

THE VELOCITY OF THE STREAM DECREASES WITH A DECREASE IN SLOPE

DOWNSTREAM
GENTLE GRADIENT
LOW VELOCITY

by Charles Burrows
RATES OF DEPOSITION
(high rate = low settling time)

SAME DENSITY, DIFFERENT SIZE
(play animation)

SAME DENSITY, DIFFERENT SHAPE
(play animation)

DIFFERENT DENSITY, SAME SHAPE AND SIZE
(play animation)

by Charles Burrows
Sediment-laden turbidity current flows beneath clear water
VERTICAL SORTING
RATES OF DEPOSITION
(high rate = low settling time)

SAME DENSITY, DIFFERENT SIZE
(play animation)

SAME DENSITY, DIFFERENT SHAPE
(play animation)

DIFFERENT DENSITY, SAME SHAPE AND SIZE
(play animation)

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THE GRADED STREAM

- Rapids
- Lake
- Falls
- Sea