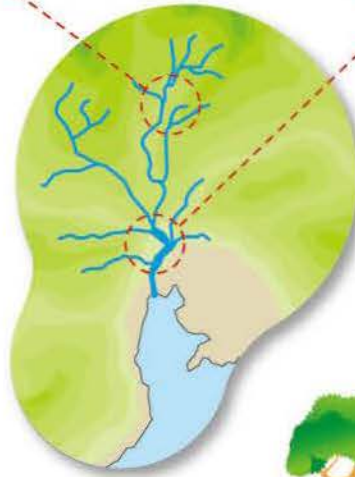


Freshwater stream - Physical environment

15.1.1 Physical changes of a stream (Upland stream vs Lowland stream)

The pictures show the physical features of Hill stream and Lowland stream.





Can you point out the differences between Upland (Hill) Stream and Lowland Stream?

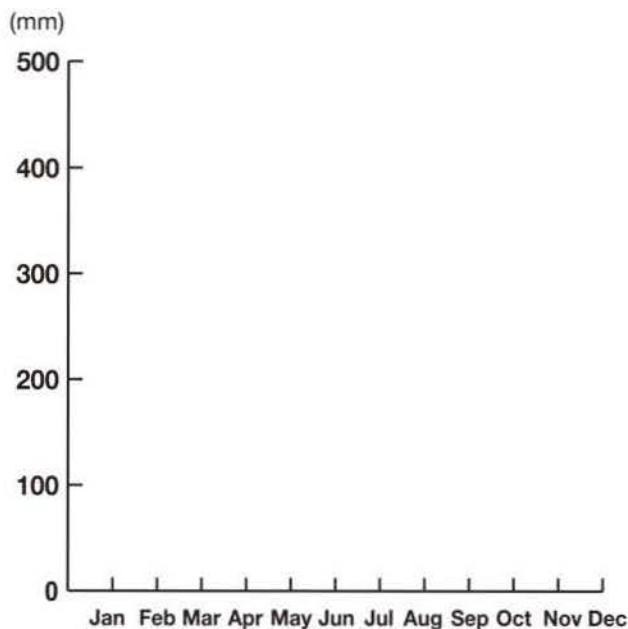
	Hill Stream	Lowland Stream
1. Width of channel		
2. Discharge volume		
3. Water flow rate		
4. Slope		
5. Substrate of streambed		

15.1.2 Seasonal changes of freshwater stream in Hong Kong

Based on the data below, sketch a chart to show changes in the mean monthly rainfall and answer the following questions.

Mean Annual Rainfall (1971-2000)	
Month	Rainfall (mm)
1	24.9
2	52.3
3	71.4
4	188.5
5	329.5
6	388.1
7	374.4
8	444.6
9	287.5
10	151.9
11	35.1
12	34.5
Total	2382.7

Source of information:
Hong Kong Observatory



A. According to the mean rainfall data, the stream will have highest discharge volume in:

_____ , _____ , _____

B. According to the mean rainfall data, the stream will have lowest discharge volume in:

_____ , _____ , _____

C. Apart from the heavy rains in wet season, what other factors increase the chances of flooding?

15.1.3 Natural Stream and Channalized Stream

With reference to the following photos, answer the following questions:



Channelized Stream - Lam Tsuen River



Natural Stream - Tai Ho River





A. Please indicate how a channelized stream different from a natural stream in respect to the shape, streambed materials and vegetations near the banks.

Channel shape: _____

Channel materials: _____

Channel vegetation: _____

B. What are the ecological impacts of channelization?

C. What remedial measures had been taken by the Drainage Services Department?

