

## RAINFALL

Name

**Causes** Rainfall is caused when air **R** , **Exp**  (due to lower air **Pr** ) and **C** .

Because colder air is able to hold **L**  water vapour than can warm air, the **relative humidity** of rising air **Inc** . When it falls sufficiently to a critical temperature (the **D**  point) then the water vapour begins to **C**  on **P**  in the air. These particles come from **V**  dust, **S**  from the sea, smoke and other forms of atmospheric **P** . Rainfall is **H**  in the west of Britain because the **Pre**  winds are from the south-west and air from over the **O**  is more **Hu**  than air from Europe. The height at which rising air reaches dew point temperature is called the **Co**  level. Air may be forced to rise in three ways:-

1

2

3

\* **Relief** When wind meets **H**  land, it is forced to rise, expand and **C** . This is especially true when the wind is blowing from the sea, making it more **H** . Most of the highest land in Britain is on the **W**  side of the country, where the **H**  prevailing **S** -west wind blows from. This results in **H**  rainfall in the **W**  of Britain than in the **E** . The east of Britain is driest, since easterly winds are **L**  humid, and westerly winds are tending to **S**  down the lee-side the hills by the time they reach the east (a rain **Shad** ).

\* **Convictional** When the ground surface is **H**  by the sun, air close to the ground is also **H**  by **C** . If the air is humid (from **Transp**  in forests, for example, especially the **Rai** ), then rising air will rapidly reach the **D**  point temperature at **C**  level. This can cause cumulo-**N**  clouds (storm clouds) and **Th**  storms especially in the humid **Tr**  and, in Britain, in **S** .

\* **Frontal** Occurs in association with **Dep** , where warm **H**  air from the tropics meets **C**  air from the pole. The **W**  air, being **L**  dense, is forced to rise above the colder **D**  air. The boundary between the air masses is called a **F**  and it is along the front that air is forced upwards most **R** . Depressions normally have **T**  fronts, there are usually two periods of clouds and **R** . Much of Britain's rainfall is **F** , especially in **W** . They come from the **A**  ocean, with the prevailing **S** -**W**  wind. The effect of such rainfall is increased in the west of Britain by the **R**  effect of the **H**  land.