Explain why the Average Total Cost Curve is downward sloping for small quantity of output produced and upward sloping for large quantity of output produced.

Let’s remember Increasing output has two contrasting effects on ATC, which are the so-called “spreading effect” and the “diminishing returns effect”.

The former states “the larger the output, the more output over which fixed cost is spread, leading to lower average fixed cost”; this means the costs of production of a certain amount of output will be less and less as the production increases (since profit will increase as well).   
The latter, instead, affirms that “*:* The larger the output, the more variable input required to produce additional units, which leads to higher average variable cost”, namely costs will be always higher as production increase.  
From these two effects derives that the average total cost for the production of a small quantity of output will be less expensive than the cost for the production of a large quantity of output. This is why the ATC curve is downward sloping for small quantity of output produced and upward sloping for large quantity of output produced.