Substitution Reactions Involving Allylic and Benzylic Compounds

Reactions:

\[
\begin{align*}
\text{allyl chloride} & \quad \text{KCN / ethanol} \quad \rightarrow \quad \text{CN}
\end{align*}
\]

\[
\begin{align*}
\text{benzyl chloride} & \quad \text{KCN / ethanol} \quad \rightarrow \quad \text{CN}
\end{align*}
\]

In both of these instances the substitution reactions (S\text{N}2) occur with ease due to the overlap stabilization of the intermediate by the \(\pi\)-electrons of the nearby \(sp^2\)-hybridized carbon atoms (see depiction below).