$$
\left(Z^{0}\right) \rightarrow \mu^{+} \boldsymbol{\mu}^{-}
$$




Complete the circles for ECAL and HCAL. One muon travels through the detector slice. Draw the other muon, roughly opposite from the vertex.
$\left(Z^{0}\right) \rightarrow \mathrm{e}^{+} \mathrm{e}^{-}$


One electron travels through the tracker and deposits in ECAL. Draw the other electron.

Sketch the tracks in ATLAS.
$\left(\mathrm{H}^{0}\right) \rightarrow\left(\mathrm{Z}^{0} \mathrm{Z}^{0}\right) \rightarrow 4$ leptons


Each $Z$ promptly decays into 2 muons or 2 electrons. Draw a combination of muons and/or electrons that results.
$\left(\mathrm{H}^{0}\right) \rightarrow \gamma \mathrm{Y}$


Each photon $(\gamma)$ is undetected by the tracker but leaves a deposit in ECAL. Draw them.

