



**Figure 3. RNA-mediated Silencing Pathways in Plants**

Although there are some overlaps and shared components, three major pathways can be distinguished by the source of dsRNA, class of small RNA, nature of the target sequence, and the mode of silencing evoked. Silencing effector complexes containing an Argonaute protein are shown as light gray spheres. Yellow boxes mark processes known to occur within the nucleus. See text for details and Table 2 for the names of regulatory components. Plant-specific proteins are labeled in green. (PTGS) Posttranscriptional gene silencing, (VIGS) virus-induced gene silencing, (TGS) transcriptional gene silencing, (RdDM) RNA-directed DNA methylation, (IR) inverted repeats, (AS) antisense, (vRdRP) virally encoded RNA-dependent RNA polymerase, (aRNA) aberrant RNA, (siRNA) short interfering RNA, (RISC) RNA-induced silencing complex. (Modified from Meiners et al. 2005.)