FIGURE 4.11  The simple datapath for the MIPS architecture combines the elements required by different instruction classes. The components come from Figures 4.6, 4.9, and 4.10. This datapath can execute the basic instructions (load-store word, ALU operations, and branches) in a single clock cycle. An additional multiplexer is needed to integrate branches. The support for jumps will be added later. Copyright © 2009 Elsevier, Inc. All rights reserved.