

Figure 11.8 Illustration of the Time Division Multiplexing (TDM) concept with items from multiple sources sent over a shared medium.

## **11.9 Synchronous TDM**

Time division multiplexing is a broad concept that appears in many forms and is widely used throughout the Internet. Thus, the diagram in Figure 11.8 is merely a conceptual view, and the details may vary. For example, the figure shows items being sent in a *round-robin* fashion (i.e., an item from sender 1 followed by an item from sender 2, and so on). Although some TDM systems use round-robin order, others do not.

A second detail in Figure 11.8 — the slight time gap between items — does not apply to all types of TDM. Extending the terminology of Chapter 9, we say that a *synchronous TDM* system sends items one after another with no delay. Figure 11.9 illustrates how synchronous TDM works for a system of four senders.



Figure 11.9 Illustration of a synchronous TDM system with four senders.