

*The transition of students with moder-*

deliver information. We focus on secondary settings because it is our experience that high school teachers tend to use this medium more frequently than elementary and middle school teachers. Teachers at any level can expand the impact of their work by incorporating principles of universal design from the beginning of their instructional planning.

### Organizing Student Information

In order for general education teachers to engage their students with moderate and severe intellectual disabilities in the instructional life of the classroom, they need to know about each stu-

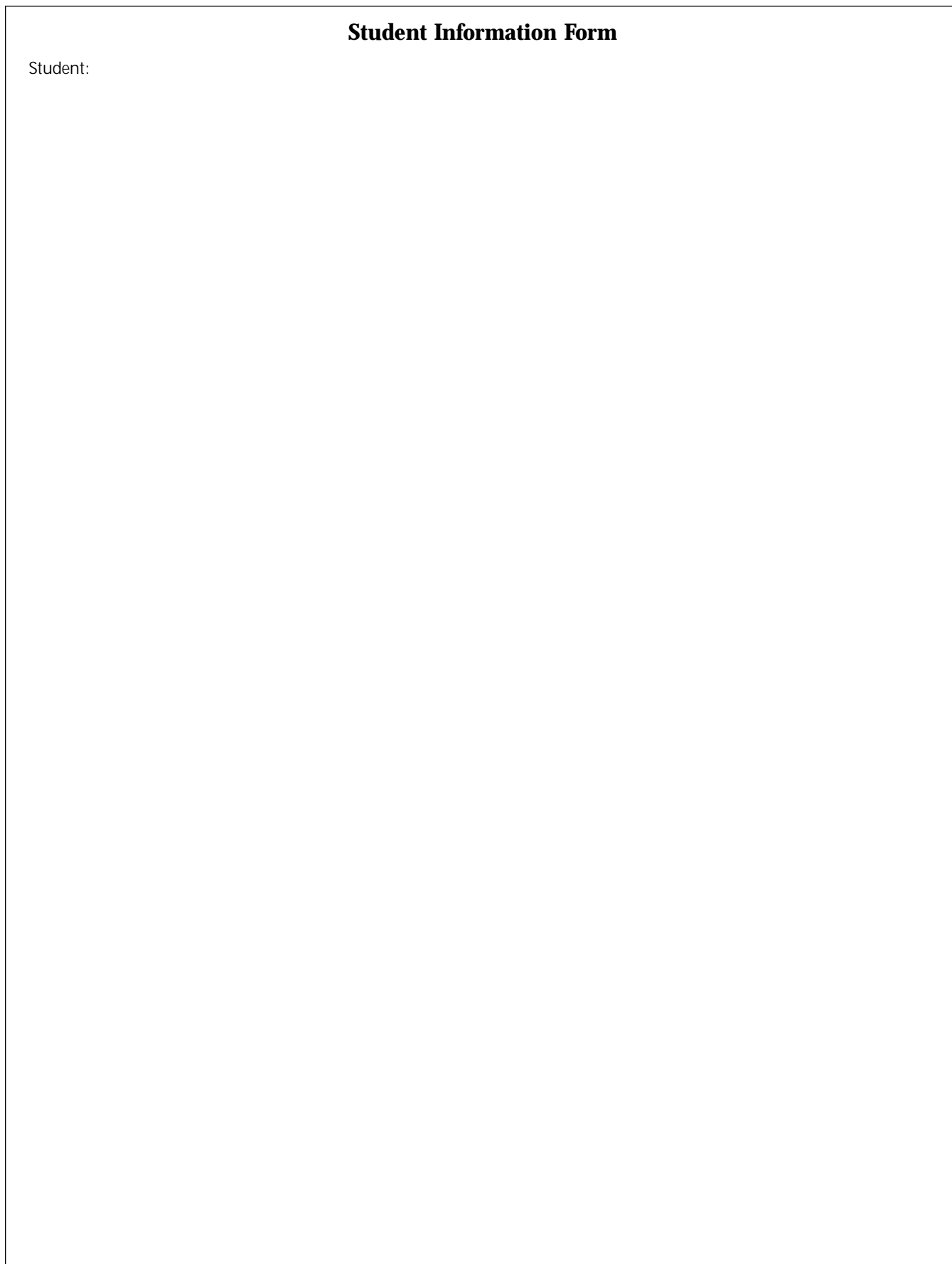
dent's instructional goals, instructional strategies that have been effective in the past, and necessary accommodations or adaptations. A Student Information Form (Figure 1) i

v.PgObPtObw.o.PeObv.PnObv.PeObv.cbPtObw.wreXHdPiObv.PvPoObv.PoObv.PmObv.P,QZfcv.UYYVeechUY

Figure 1. Student Information Form

**Student Information Form**

Student:



accessible by a wide range of students. *Universal design* refers to the materials and activities that make learning goals achievable by individuals with wide differences in their abilities to see, hear, speak, move, read, write, understand English, attend, organize, engage, and remember. *Universal design for learning* is achieved by means of flexible curricular materials and activities that provide a variety of instructional access points for students in heterogeneous classrooms. This includes students with differing abilities, interests, and background knowledge or experience with the subject matter. These alternatives are built into the initial instructional design and operating systems of educational materials, not added on after the fact.

Increasingly, teachers are incorporating these principles into the design of their classrooms, curricula, and instruction as a means of meeting the needs of an increasingly diverse student body (Rose, Meyer, & Hitchcock, 2005). Burgstahler (2008) suggests several principles to be used when designing instruction within the universal design framework (see box, "Principles of Universal Design").

However, for some high school teachers incorporating principles of universal design is a new experience—and others who are experienced with universal design may not have had opportunities to consider how to facilitate mastery of content-area knowledge for students with moderate or severe intellectual disabilities. The following strategies incorporate the principles of universal design to extend the use of presentation software to facilitate the inclusion of students with moderate and severe intellectual disabilities in the instructional life of the classroom.

**Use**

The various presentation software programs offer different printing options (i.e., full page, several slides per page, notes, slides with blank lines to the right of each slide, graphic organizers). General and special education teachers can work together to decide which option is the most beneficial for the student with moderate or severe intel-

lectual disabilities. The teacher can provide a hard copy of the slide show to other team members (e.g., special educator, family, peers, speech language pathologist) so that the content can be pretaught or reinforced. This strategy provides the student with moderate or severe intellectual disabilities a way to focus on the content of the instruction being offered, and offers opportunities for others to teach and reinforce aspects of the content. This support from other team members increases the likelihood of the student acquiring content knowledge.

The priority slides for "Sara," a student with Down syndrome and moderate

intellectual disabilities, are always designated with a specific symbol (i.e., a star). Although exposed to the entire PowerPoint® presentation during whole-class instruction, Sara focuses most intently on the slides with the symbol. This focus can be reinforced by the teacher.

at the slide. The student can be provided with a hard copy of the slides with the symbol.



vides a visual cue (see Figure 3). Offering only one word option per slide incorporates errorless learning; the student can only make a correct response, ensuring that she practices the correct information. This is particularly helpful for students with moderate or severe intellectual disabilities as they may learn at a slower rate than their peers; not encouraging the student to practice errors precludes additional delay in content mastery.

**Use** 

High school students with moderate or severe intellectual disabilities may be nonreaders or read at a significantly

below grade level. This is a significant barrier to learning. The following strategies can be used to help these students learn to read.

Figure 4. Electronic Flash Cards



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team members can provide instruction and practice with content-related vocabulary by linking the vocabulary from the slide show to an online flash card program.

Using an online flash card program (see box, “Additional Resources”) can help students acquire knowledge-level material. On one side of the virtual flash card, enter the vocabulary term and a picture from the slide show; on the other side type in the definition and picture (see Figure 4). You can find appropriate pictures to include on the flash cards from one of the many online picture dictionaries (see box,

“Additional Resources”). Online flash card programs also make it easy to build in repetition by duplicating cards (see Figure 4, slides 1 and 4). Generally speaking, online flash card programs link vocabulary terms with pictures and games very well. The student with moderate or severe intellectual

disabilities can be paired with classmates to play the games, thereby benefiting both students. Such pairings offer the student with disabilities the opportunity for additional practice with engaging in reciprocal interactions with peers, participation in shared experiences, and content review.

**Essential ideas and concepts are fodder for  
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Printing the flash cards makes