

Early Base Ten Assessment

revised February#2, 2005

Directions: Present the following story problems verbally to the child. Record the answer and solution strategy used. The strategy used will expose what stage of base ten development the child is at. The three levels typically witnessed are direct modeling, counting on or counting to (calculating levels), flexible strategies and abstract number strategies (automatic levels). Below is a chart to create a profile of the child based upon the responses to each problem. If a child responds at the automatic abstract number level, there are suggested follow up questions presented. If numbers or the context need to be adjusted, the object is to use these problem types with number choices that draw attention to the explicit base ten relations that exist in composing and decomposing a multidigit number. If the child does not respond to the problem, explicitly direct the child to using cubes or pictures to solve the problem. The assessment administrator should follow the lead of the child to see how far and to what number range his or her base ten understanding might extend before a calculating strategy needs to be utilized.

Name of Child: _____				Grade: _____				Date: _____			
Join, Result Unknown <i>You have 20 cookies on a plate. I give you three more cookies to put on the plate. How many cookies do you have on your plate now?</i>			Separate, Result Unknown <i>There are 17 cookies on the plate. Seven of the cookies get eaten. How many cookies are still on the plate?</i>			Join, Change Unknown <i>You have 30 cookies already made for a party with friends. How many more cookies do you need to make to have 37 cookies for the party?</i>			Compare, Difference Unknown <i>You have 14 cookies on your plate. I have 24 cookies on my plate. How many more cookies do I have than you?</i>		
Objective: To assess if the child understands how a number is composed in terms of its place value components. To assess a child's intuitive or explicit understanding of $0 + a = a$.			Objective: To assess if the child understands how a number can be decomposed into its place value components. To assess a child's intuitive or explicit understanding of $a - a = 0$.			Objective: Similar to the Join Result Unknown question but from a different structure.			Objective: To assess if a child can compare two numbers with the ones place fixed and tens place is unequal.		
Notes:			Notes:			Notes:			Notes:		
If the child responds at the <i>automatic level</i> , verbally ask, "What if you had 60 cookies and I gave you 8 more?" "What if you had 130 and I gave you 4 more?" "What if it was 105 cookies and I gave you 20 more?"			If the child responds at the <i>automatic level</i> , ask "What if it were 74 and 4 were eaten? 124 and 20 were eaten?"			If the child responds at the <i>automatic level</i> , ask "What if you had 90 cookies, how many more to have 98 cookies? What if 54 cookies, how many to have 64 cookies?"			If the child does not have an easy time with solving these numbers, try asking the problem with 24 and 34. The teen numbers can be harder for some children. If at the <i>automatic level</i> , ask using the numbers 23 & 43 (spreading the distance by greater increments of ten); 136, 236		

Materials: The intent is to get a verbal response with, at most, fingers being used. However, if needed, have paper, marking pen, and cubes for a child to access.

Brickwedde, February#2- 2005

Individual Student Profile - Early Base Ten Assessment

Student Name & Date:	JRU (20, 3)	SRU (17,7)	JCU (30,37)	CDU (14,24)
	Adjusted numbers if used at all	Adjusted numbers if used at all	Adjusted numbers if used at all	Adjusted numbers if used at all
Direct Modeling (Calculating Level)				
Counting Strategies (Calculating Level)				
Flexible, Derived or Abstract Strategies (Automatic Level)				

- Notes:**
- The cells are split in order to differentiate the level of number choices presented to the student.
 - It is suggested that this sheet is photocopied back-to-back with the interview script so that the interview and profile are together on one sheet.
 - Please make special note if the child used a correct strategy even though a computational error was made leading to an inaccurate answer.

Group Summary - Early Base Ten Assessment

Student Name & Date:	JRU (20, 3)	SRU (17,7)	JCU (30,37)	CDU (14,24)
	Adjusted numbers if used at all	Adjusted numbers if used at all	Adjusted numbers if used at all	Adjusted numbers if used at all
Direct Modeling (Calculating Level)				
Counting Strategies (Calculating Level)				
Flexible, Derived or Abstract Strategies (Automatic Level)				

Date compiled: _____

Teacher compiling data: _____ **E-mail address:** _____

Site Location: _____ **Location Setting** (Urban, Suburban, Rural)

Number of students in interview sample: _____ **Gender:** _____ **Male** _____ **Female**

Grade level of students interviewed: _____

(Note: If you have a multi aged classroom, or interviewed students from multiple grade levels, please use a separate summary sheet for each grade level.