

Home Schooling a Child with Down Syndrome:

Grade 1 Math

Suggestions & Resources

*Preschool level material would
be for Down Syndrome
children about ages 7+*

*Skill Sample
for this age group:*

Position

Ordinal numbers

Numbers to 100

*Addition and subtraction
facts*

Place value

*Tells time to the five minute
interval*

Calendar

Counting money

Measurement

Geometry-shapes

Identifying simple fractions

Adapting A Math Program

Just as in finding and adapting a reading and phonics curriculum, you will need to do the same for math on this level. You will want to find multi-sensory resources with *strategies*, *mnemonics*, and *systematic* teaching.

You may be able to use the same grade 1 curriculum as you did for your other children for a guide if it is a basic math program that teaches systematically. You may need to add some extra strategies and mnemonics. You may also need to add lots of fun games for repeated practice. The following list gives examples:

- ∞ Have your child count as he looks at a number chart instead of just rote counting so he can visualize the number he is saying.
- ∞ If your child cannot memorize the facts, you will need a mnemonic to help him succeed and teach calculator skills.
- ∞ You will need to stay in the concrete stage longer when working on concepts. Some children may never be able to understand abstract concepts unless shown with manipulatives.
- ∞ The hands on the clock may need color-coding to help him keep the hour and minute hands straight.
- ∞ Learn to count by tens and fives by using the one hundred chart as a visual.

Just like other subjects, your child may take three or more years to cover the same concepts that normally developing children cover in one year. This is God's timetable for your child. Math seems to be more challenging for some children. While reading is a visual skill and the words are there for him to see, math requires that your child be able to visualize concepts in

his head such as in remembering the answers to math facts. Mnemonics helps the child that cannot visualize and memorize his facts. Eventually, your child will probably use a calculator to add and subtract.

As you look at the resources below, you need to realize that with any curriculum that you will need to probably do the following:

- ∞ When the curriculum instructs you to have your child memorize the facts you may need to keep using manipulatives and/or teach your child a strategy to find the answers.
- ∞ You may not be able to use all the pages in the workbooks because there is not enough space to write, the page is too cluttered, or the print is too small,
- ∞ You may need to design some of your own pages using the workbook page as a guide to make more room to write, provide less clutter and fewer problems.
- ∞ Put workbook pages in a vinyl pocket and use a water-based pen to allow for repetition of the page.
- ∞ Some lessons may be too long and you need to divide them into two or more parts. For example when teaching your child time to the five-minute interval, your child may need one lesson to teach $_ :05$ and another to teach $_ :10$ and another to review $_ :05$ and $_ :10$ and so on.
- ∞ You may need to find extra workbooks that specialize in money activities and time for additional practice—or better yet make your own on a computer.
- ∞ Remember to apply what your child has learned to everyday life. After teaching halves and fourths, cut sandwiches into halves and fourths.

RESOURCES

Curriculums:

- ❖ **BJU Press Grade 1 Math (1-800-845-5731)** This multi-sensory curriculum uses lots of visuals and hands on manipulatives. It also has a fun clown theme.
- ❖ **The Three R's** by Ruth Beechick
CBD Home School (978) 977-5055
(See the *Kindergarten* pamphlet) Ruth's book is a guide of what to teach but you need to gather supplies for lessons.
- ❖ **Saxon Grade 1**
This is a plain black and white program. You may need to add lots of games and activities to make it interesting.
- ❖ **Math U See**
Some families do not use this curriculum as a whole, but the strategies and manipulatives can be helpful. One family found the strategy for teaching of time helpful. It is strong on place value and some of the ideas may be helpful when teaching this area. It is arranged very differently than other curriculums but it is very hands on and has some good ideas. The blocks used with the curriculum are helpful because they are color-coded. The workbook pages would be very difficult for many children with Down Syndrome to work in because of the small spaces. If you already use it with your other children, you can use some of the strategies. If you do not have it, you might want to borrow it from a friend in order to take a good look at it before purchasing. (*Note:* The author of this program has a son with Down Syndrome)

❖ **Mastering Mathematics**

This curriculum is very basic. It requires that your child already have the experience of a kindergarten program. The author teaches the basics of math without telling the "why." She does, however, have some previous experience teaching children with Down Syndrome. She suggests sticking to skills and concepts that they need to know for life. She suggests finger counting for facts that cannot be memorized. She talks about all of the skills she thinks is worth teaching at this level for children with Down Syndrome which is a good start, but I do not think that she gives enough of the "how" to teach these skills that some families may need. Most workbook pages are not busy, but some pages have too much. There also may not be enough space for some children to write. While she does have some games, they may not be as motivating for some children.

❖ **Touch Math (800) 888-9191MST**

This program is very high priced but they currently came out with a four book set called *One-2-One for Grade 1*. This is the best mnemonic that I have seen for learning math facts without having to use fingers if your child cannot memorize, but he can count to 20.

Extra Activities and Games

- ❖ **ETA Cuisenaire: Money Grades 1-2 (800) 445-5985**
This manual has lots of games and activities for money.

❖ **Judy/Instructo**

❖ **Frank Schaffer (800) 421-5565**

Or see your local teacher supply store
These companies have a variety of supplies that you might need as your teach math such as one hundred charts, calendars, fact flashcards, money and time activities.

In conclusion, it is difficult to find a curriculum for math. It is so important that math be fun and motivating. If you are not sure what to use the following guidelines may be helpful:

1. Use your current curriculum to make a list of what first graders need to know.
2. Use your current curriculum if it will be motivating to your child.
3. Use hands on activities more than paper and pencil, especially in the beginning.
4. Add additional strategies and mnemonics to help him learn the facts, counting to 100 by 1s, 5s, and 10s.
5. Look for and purchase additional materials when needed to give extra practice with a concept.
6. There are some things you will want to practice every day after the skills are introduced such as money, time, counting, and facts.
7. Apply what your child is learning to everyday life so he sees a reason for learning it.
8. Ask yourself how important it is for your child to know this concept 20 years from now?

This pamphlet was prepared by Diane Brown
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