BHARATHIDASAN UNIVERSITY CENTRE FOR DIFFERNTLY ABLED PERSONS Tiruchirappalli-620024 Tamil Nadu, India

Programme Name	Diploma in vocational training and development (DVTD)
Course Code	23DVTD1
Course title SEM Unit	Basic Academics I
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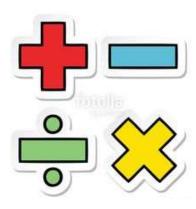
Basic Mathematics and Money Management

Understanding Arithmetic, Money Transactions, and Banking

Introduction

Basic mathematics and money management for students with intellectual disabilities focus on practical, real-life applications while building essential foundational math skills. Building a Strong Foundation in Basic Arithmetic

Focus Areas: Addition, Subtraction, Multiplication, and Division



- A. Number Recognition and Counting
- Goals:
 - Recognize numbers and count objects.
 - Understand one-to-one correspondence.
- Activities:
 - Counting Games: Count items like toys, snacks, or coins.
 - Number Matching: Match numbers to groups of objects.
 - Tracing Numbers: Use worksheets or sand trays to trace numbers.

Basic Addition and Subtraction

Goals:

 Perform simple addition and subtraction with visual aids.

- Use manipulatives like counters, blocks, or beads.
- Practice addition and subtraction with story problems (e.g., "If you have 3 apples and add 2 more, how many do you have?").
- Interactive Apps: Try apps like "Todo Math" for practice.

Shapes and Patterns

Goals:

- Recognize and classify shapes.
- Identify and complete patterns.

- Shape Hunt: Find shapes in the environment (e.g., circle = clock, rectangle = door).
- Use puzzles or cut-and-paste worksheets for patterns.
- Building Blocks: Create patterns with colored blocks.
- practice.

Measurement and Time

Goals:

- Understand basic units of measurement (length, weight, volume).
- Tell time on analog and digital clocks.

- Use rulers, scales, or measuring cups during practical activities (e.g., baking or crafting).
- Practice setting times on toy clocks or drawing clock hands.
- Use songs or rhymes to learn about hours and minutes.

Money Management Skills

- A. Identifying Money
- Goals:
 - Recognize coins and bills.
- Activities:
 - Use real or play money to identify and sort coins and bills.
 - Match coins/bills to printed templates.
 - Use flashcards with pictures of money for recognition.

Money Management Skills

- Counting and Comparing Money
- Goals:
 - Count small amounts of money.
 - Compare amounts (e.g., which is more or less).

- Practice combining coins to make small amounts (e.g., Rs 20 note = Rs 1 ,Rs.2 Rs.5 and Rs.10 coins).
- Use interactive money apps like "Counting Coins" by ABCya.
- Role-play scenarios, such as giving the right amount for a purchase.

Money Management Skills

Making Purchases

Goals:

- Use money to buy items.
- Understand giving and receiving change.

- Set up a pretend store with items priced under Rs
 5 and Rs.10 and have students "buy" them.
- Use real-life shopping trips to practice identifying items, counting money, and paying.
- Play money management games like "Monopoly Junior."

Budgeting

Goals:

Understand the concept of saving and spending.

- Introduce simple savings goals (e.g., saving coins for a toy).
- Use jars labeled "Save," "Spend," and "Donate" to allocate money.
- Practice budgeting with worksheets that show a small allowance and choices for spending.

Objectives:

- Learn fundamental math operations.
- Apply arithmetic to solve real-life problems.
- Build confidence in handling numbers.

Understanding Addition

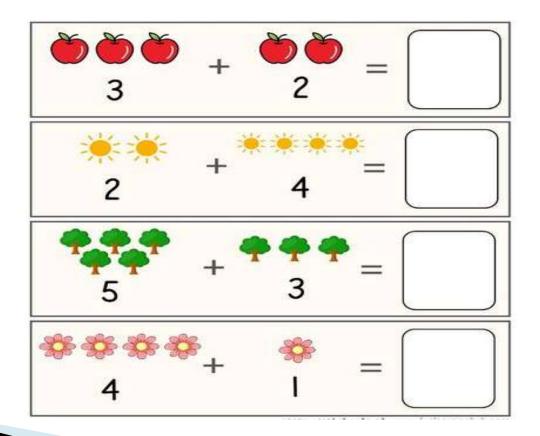
Combining two or more numbers to find the total.

Examples:

Real-life: Counting total fruits in a basket.

Numeric: 4 + 3 = 7

Activity:



Exploring Subtraction

Removing a part from a whole to find the remainder.

Examples:

Real-life: Giving away 2 candies from 5.

Numeric: 5 - 2 = 3

Activity:



Multiplication

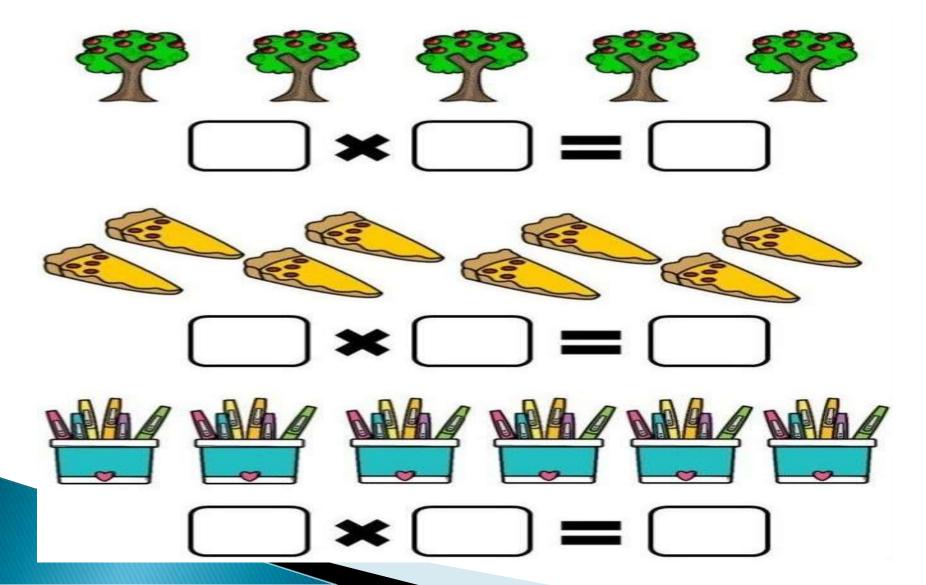
Repeated addition of the same number.

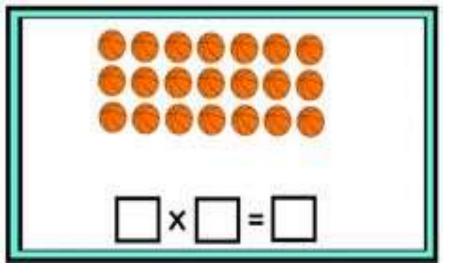
Examples:

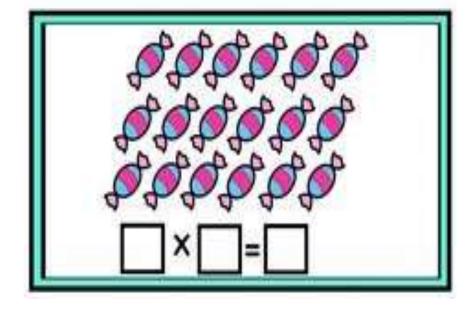
Real-life: 3 baskets with 4 apples each (4 + 4 + 4 = 12).

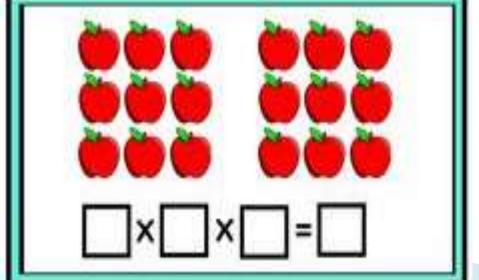
Numeric: $3 \times 4 = 12$

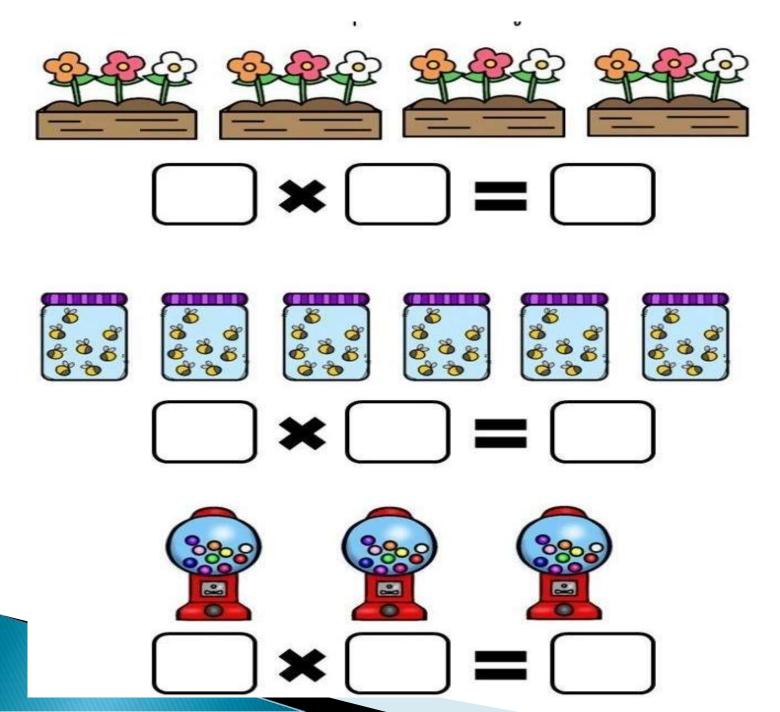
Activity: Group and multiply objects to find the total.











Division

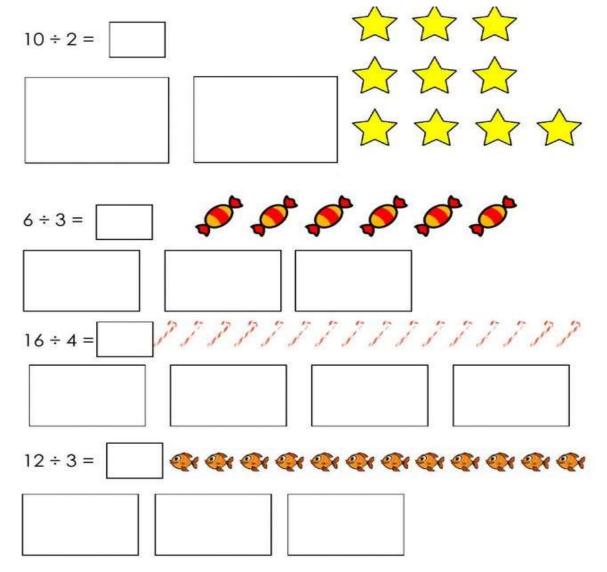
Concept: Splitting a number into equal parts.

Examples:

Real-life: Sharing 12 cookies among 4 friends.

Numeric: $12 \div 4 = 3$

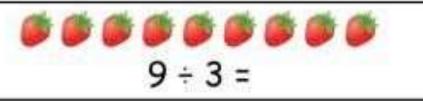
Activity: Divide objects into equal groups and count.

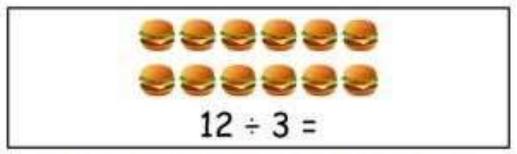


Divide by 3

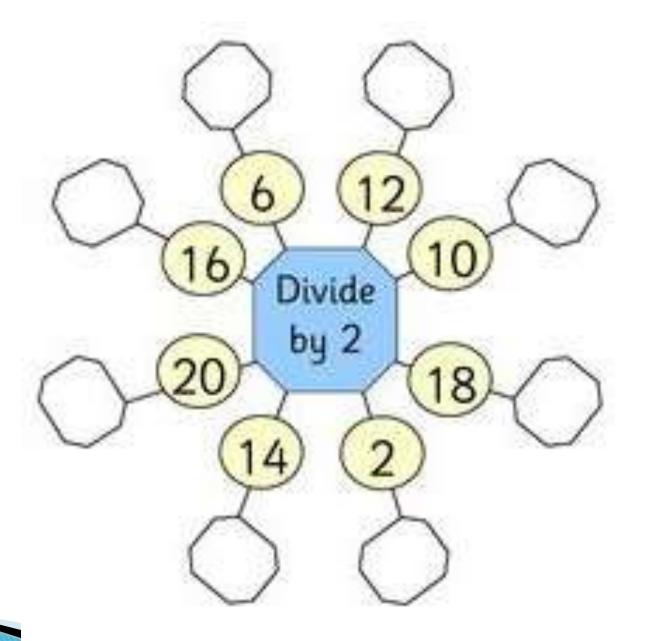












Using Arithmetic Symbols



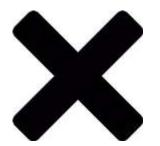
Key Symbols:

+ (Addition), - (Subtraction), × (Multiplication (Division)

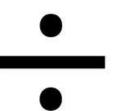
Tips:

Understand each symbol's function.

Practice reading and solving simple equations.



Interactive Exercise: Match symbols to operations.



Applying Arithmetic in Real Life

Scenarios:

Shopping: Add prices of items.

Cooking: Multiply ingredients for a recipe.

Sharing: Divide treats among friends.

Activity: Solve real-life problems using arithmetic.

Practice

Suggestions:

Solve worksheets with basic arithmetic problems. Use math games and apps for interactive learning. Practice daily with household examples.

Interactive Activity: Complete a set of problems in small groups.

Resources and Tools

- Printable Materials
- Coin Identification Worksheets:
 - WorksheetWorks
- Money Math Games:
 - Matching coins and solving small puzzles on <u>Twinkl</u>.
- Budgeting Worksheets:
 - Create simple "Allowance Budget" templates on <u>Education.com</u>.

Interactive Tools

Apps:

- "Todo Math" for basic math practice.
- "SplashLearn" for counting and simple operations.
- "Moneyville" or "Counting Coins" for money skills.

Websites:

- Starfall Math for interactive learning.
- ABCya Money Games.

Printable Resources and Worksheets

- Here are some links to specific printable resources that can be used to support the learning activities:
- Counting and Number Recognition:
 - Number Tracing Worksheets
 - Counting Objects Worksheets
- Addition and Subtraction:
 - Basic Addition Worksheets
 - Subtraction Worksheets
- Shapes and Patterns:
 - Shape Worksheets
 - Pattern Worksheets
- Money Management:
 - Money Worksheets
 - Transaction Worksheets

Thank You