Teacher Preparation Lesson Plan

Subject Area: Mathematics
Unit Title: Understanding Place Value in Multi-Digit Numbers for EL Students with Learning Differences
Grade Level: 3-5
Lesson Number: 1 of 10

Duration: 60 minutes
Date: March 10, 2023
Teacher: Ms. Johnson
Room: Room 101

Curriculum Standards Alignment

Content Standards:

- Understand the concept of place value in multi-digit numbers
- Apply place value to solve math problems
- Evaluate the importance of place value in real-life applications

Skills Standards:

- Analyze and interpret data
- Use mathematical models to solve problems
- Communicate mathematical ideas and solutions

Cross-Curricular Links:

- Language Arts: reading and writing math problems
- Science: measuring and calculating quantities
- Technology: using digital tools to solve math problems

Essential Questions & Big Ideas

Essential Questions:

- What is the concept of place value in multi-digit numbers?
- How can we apply place value to solve math problems?
- Why is place value important in real-life applications?

Enduring Understandings:

- Place value is a fundamental concept in mathematics
- Understanding place value is essential for solving math problems
- Place value has real-life applications in various fields

Student Context Analysis

Class Profile:

- Total Students: 25
- ELL Students: 5
- IEP/504 Plans: 3
- Gifted: 2

Learning Styles Distribution:

- Visual: 40%
- Auditory: 30%
- Kinesthetic: 30%

Pre-Lesson Preparation

Room Setup:

- Arrange desks in pairs
- Prepare whiteboard and markers
- Set up technology for presentation

Technology Needs:

- Computer and projector
- Internet access
- Math software

Materials Preparation:

- Printed copies of worksheets
- Math manipulatives (base-ten blocks, etc.)
- Whiteboard markers

Safety Considerations:

- Ensure students are seated safely
- Monitor student behavior during activities
- Have a first aid kit available

Detailed Lesson Flow

Introduction to Place Value (10 minutes)

- Introduce the concept of place value
- Use visual aids to explain the concept
- Provide opportunities for students to ask questions

Recognizing Multi-Digit Numbers (15 minutes)

- Provide students with flashcards or worksheets
- Ask students to identify the place value of each digit
- Use visual aids to support students with autism

Applying Place Value (15 minutes)

- Provide students with worksheets or activities
- Ask students to apply their understanding of place value
- Use real-life examples to illustrate the importance of place value

> **Engagement Strategies:**
>
> - Use visual aids to support student understanding
> - Provide opportunities for students to work in pairs
> - Offer frequent breaks and opportunities for movement

Guided Practice (15 minutes)

- Provide students with guided practice activities

- Circulate around the room to provide support
- Provide opportunities for students to ask questions

> **Checking for Understanding:**
>
> - Use formative assessment to monitor student progress
> - Provide feedback and encouragement to students
> - Adjust instruction as needed

Independent Practice (15 minutes)

- Provide students with independent practice activities
- Allow students to work at their own pace
- Provide support as needed

Closure (10 minutes)

- Review the key concepts of the lesson
- Provide opportunities for students to ask questions
- Provide feedback and encouragement to students

Differentiation & Support Strategies

For Struggling Learners:

- Provide extra support and scaffolding
- Use visual aids to support understanding
- Offer one-on-one support as needed

For Advanced Learners:

- Provide challenging activities and extensions
- Encourage students to create their own math problems
- Offer opportunities for students to work in pairs or small groups

ELL Support Strategies:

- Provide bilingual resources and support
- Use visual aids to support understanding
- Offer opportunities for students to work in pairs or small groups

Social-Emotional Learning Integration:

- Encourage students to work in pairs or small groups
- Provide opportunities for students to share their thoughts and ideas
- Use restorative circles to build community and promote social-emotional learning

Assessment & Feedback Plan

Formative Assessment Strategies:

- Use observations and quizzes to monitor student progress
- Provide feedback and encouragement to students
- Adjust instruction as needed

Success Criteria:

- Students can identify the place value of each digit
- Students can apply their understanding of place value to solve math problems
- Students can evaluate the importance of place value in real-life applications

Feedback Methods:

- Verbal feedback
- Written feedback
- Peer feedback

Homework & Extension Activities

Homework Assignment:

Complete the worksheet on place value and submit it to the teacher by the next class.

Extension Activities:

- Create a math problem using place value and solve it
- Research and present on a real-life application of place value
- Create a game or puzzle using place value

Parent/Guardian Connection:

Encourage parents/guardians to ask their child about the lesson and provide support at home.

Teacher Reflection Space

Pre-Lesson Reflection:

- What challenges do I anticipate?
- Which students might need extra support?
- What backup plans should I have ready?

Post-Lesson Reflection:

- What went well?
- What would I change?
- Next steps for instruction?

Introduction to Place Value

Introduction:

Introduce the concept of place value and its importance in mathematics.

Objectives:

- Students will understand the concept of place value
- Students will be able to identify the place value of each digit

Materials:

- Whiteboard and markers
- Printed copies of worksheets
- Math manipulatives (base-ten blocks, etc.)

Procedure

Step 1:

Introduce the concept of place value using visual aids.

Step 2:

Provide students with worksheets or activities to practice identifying the place value of each digit.

Step 3:

Use math manipulatives to support student understanding.

Recognizing Multi-Digit Numbers

Introduction:

Provide students with flashcards or worksheets with multi-digit numbers.

Objectives:

- Students will be able to identify the place value of each digit
- Students will be able to recognize multi-digit numbers

Materials:

- Flashcards or worksheets with multi-digit numbers
- Math manipulatives (base-ten blocks, etc.)

Procedure

Step 1:

Provide students with flashcards or worksheets with multi-digit numbers.

Step 2:

Ask students to identify the place value of each digit.

Step 3:

Use math manipulatives to support student understanding.

Applying Place Value

Introduction:

Provide students with worksheets or activities that require them to apply their understanding of place value.

Objectives:

- Students will be able to apply their understanding of place value to solve math problems
- Students will be able to evaluate the importance of place value in real-life applications

Materials:

- Worksheets or activities that require students to apply their understanding of place value
- Math manipulatives (base-ten blocks, etc.)

Procedure

Step 1:

Provide students with worksheets or activities that require them to apply their understanding of place value.

Step 2:

Ask students to solve math problems using place value.

Step 3:

Use real-life examples to illustrate the importance of place value.

Conclusion

Summary:

Understanding place value is a fundamental concept in mathematics that can be challenging for EL students with learning differences.

Reflection:

Reflect on the lesson and identify areas for improvement.

Next Steps:

Plan follow-up lessons to build on the learning progressions from this lesson.

Assessment

Formative Assessment:

Use observations and quizzes to monitor student progress.

Summative Assessment:

Use a written test, project-based assessment, or oral presentation to evaluate student understanding of place value.

Accommodations and Modifications

Accommodations:

- Provide frequent breaks and opportunities for movement for students with ADHD
- Use visual aids to support students with autism
- Provide bilingual resources and support for EL students

Modifications:

- Provide extra support and scaffolding for struggling learners
- Offer challenging activities and extensions for advanced learners
- Use assistive technology to support students with disabilities

Extension Activities

Extension Activities:

- Create a math problem using place value and solve it
- Research and present on a real-life application of place value
- Create a game or puzzle using place value

Teaching Tips

Teaching Tips:

- Use visual aids to support student understanding
- Provide opportunities for students to work in pairs or small groups
- Offer frequent breaks and opportunities for movement

Reflection Questions

Reflection Questions:

- How did the visual aids and real-life examples support student understanding of place value?
- What accommodations were made for students with ADHD and autism, and were they effective?
- How can the lesson be modified to better support EL students with learning differences in future lessons?

Next Steps

Next Steps:

- Plan follow-up lessons to build on the learning progressions from this lesson
- Provide opportunities for students to apply their understanding of place value to solve math problems
- Encourage students to use visual aids to support their understanding of place value

Conclusion

Conclusion:

Understanding place value is a fundamental concept in mathematics that can be challenging for EL students with learning differences.

Final Thoughts:

By incorporating tailored strategies and accommodations, teachers can support these students in developing a deep understanding of place value in multi-digit numbers.