

Lesson plan – Measuring with parts of my body

School name: Indigenous preschool “Josefa Ortiz de Domínguez”

Topic of the lesson: “Measuring with parts of my body”

ICH Element: Maya (indigenous language) and measurement system used in the context of the Mayan community

Main teaching language: Maya

Other languages used during the lesson: Spanish

1. Objectives

1.1 **Knowledge** What learning objectives do you want to achieve?

EXPECTED LEARNING:

- Estimates and performs perceptual comparisons on the measurable characteristics of subjects, objects and spaces. (taken from *Programa de Estudio 2011*¹)
- Uses arbitrary units of measure to measure objects (taken from *Didactic Strategies: A guide for teachers of indigenous Education*²)

1.2 **Skills** What skills or abilities do you want the student to acquire?

SKILLS TO BE DEVELOPED:

- Use unconventional units of measurement to solve problems that involve measuring

1.3 **Attitude** What attitude do you want the student to acquire?

STUDENT GOALS

To identify the parts of the body in the Mayan language and in Spanish

2. Preparation

2.1 Teacher

- Reading and familiarizing with the teaching resource from *Didactic Strategies: A guide for teachers of indigenous education*
- Research with community members unconventional units of measurement that are commonly used. three of them will be used for the lesson:
 - **kA'B**: The palm of the hand
 - **HUN OOK**: Foot length
 - **HUN ZAAP**: The distance from the tip of the fingers from one hand to the other, with arms fully extended to the side
- Cards with the names of the parts of our body were elaborated in Maya writing
- Two dolls with the traditional costume of the state of Quintana Roo (chiclero) were taken to the room to work the parts of the human body
- Prepared songs of the community in Maya.

¹ Mexico. Secretaría de Educación Pública. 2011. *Programa de Estudio 2011. Guía para la Educadora. Educación Básica Preescolar*. Mexico D.F.

² Mexico. UNESCO. 2008. *Estrategias didácticas: Guía para docentes de Educación Indígena*. [Didactic strategies: a guide for teachers of indigenous education] Mexico City, UNESCO. (In Spanish.)

2.2 Students

- Student participation
- Knowledge of the Mayan language
- Willingness to carry out the activities

3. Materials

- Cardboard dolls,
- Posters with names in Mayan language,
- Flipchart
- Markers
- String
- Drawings
- Books in Maya
- Songs in Maya
- Assessment chart

4. Methods

An effective method to carry out the planned activities for our lesson *MEASURING WITH PARTS OF MY BODY*, for Preschool students is in a playful way. The children are motivated through games and guided in their learning process. This way, a fun and participatory school day fulfils a pedagogical purpose.

5. Activity Plan

Activity name	Measuring with parts of my body
Training field	Mathematical thought
Aspect	Shape, space and measure
Skills	Use of unconventional units to solve problems that involve measurements
Expected learning	<ul style="list-style-type: none">• Estimates and performs perceptual comparisons on the measurable characteristics of subjects, objects and spaces. (taken from <i>Programa de Estudio 2011</i>³)• Uses arbitrary units of measure to measure objects (taken from <i>Didactic Strategies: A guide for teachers of indigenous Education</i>⁴)
INTRODUCTION	
<ul style="list-style-type: none">• Activity to start the day: CHAN BOOX K´EEK´EN song• Ask children in Maya and Spanish:<ul style="list-style-type: none">○ What is the human body?○ What are the parts of the body?○ List them on the board	
DEVELOPMENT OF ACTIVITY	
<ul style="list-style-type: none">• Naming the parts of our bodies in Spanish• Naming the parts of our body in Maya• Identifying the parts of our body on cardboards dolls, pointing them out with flashcards written in Maya• Ask students the following question:	

³ Mexico. Secretaría de Educación Pública. 2011. *Programa de Estudio 2011. Guía para la Educadora. Educación Básica Preescolar*. Mexico D.F.

⁴ Mexico. UNESCO. 2008. *Estrategias didácticas: Guía para docentes de Educación Indígena*. [Didactic strategies: a guide for teachers of indigenous education] Mexico City, UNESCO. (In Spanish.)

- What is measuring?
- What do we measure for?
- What do we measure with?
- What can be measured?
- Write the answers on the board.
- Teaching session that covers these questions.
- With the aid of flashcards, teach students three unconventional units of measurement that will be used during the activity.
 - kA´B:** the palm of the hand
 - HUN OOK:** length of the foot
 - HUN ZAAP:** The distance from the tip of the fingers from one hand to the other, with arms fully extended to the side
- Prepare students for the following activity that involves applying these measurements:
 - The children will be asked to measure their desks with their palms.
 - The children will be asked to measure the class theatre with their feet.
 - The children will measure the chalkboard with the arm measurement, using thread as an aid.
- Results will be written in a flipchart.
- Compare measurements and results.
- Encourage the students to measure with the palm of the hand and with thread parts of the body: arms, legs, waist, etc.
- Show the students the song selected about the parts of the body, written on the flipchart.
- Sing the song using ICTs.
- Paint a drawing while naming the parts of the body in Maya.

CLOSING

- Ask the students: Why do you think the results are different? Why are the measurements different when we use the pal of the hand, the arm measurement and the foot?
- Towards the end of the activity, ask the students: Which objects have the same measurements? What measures more? What measures less? Are your measurements the same as your classmates? Why do you think this happens?

ASSESSMENT

Assessment chart, observation

MATERIALS

Cardboard dolls, flipchart, markers, string, colouring utensils, drawings, recorder.

Assessment chart

FEATURE	EXCELLENT	GOOD	REGULAR
Sings the song about body parts in Maya			
Sings the song about body parts in Spanish			
Identify the body parts in the Maya			
Identify body parts in Spanish			
Participates with classmates measuring objects in the classroom with unconventional units of measurements			



yeetel in k'ab
 ku beeytin machkech
 ku k'abeetal teen
 ti'in lapk'a k'ab
 ka'apeel in wicho'ob
 ti'al in wilkech
 ka'apeel in xikno'ob
 ti'al in wuuykech
 Jumps'eeel in ni'
 ti'al in wuuts'benkech
 yeetel in chi' ti'al in jaanal
 beeyxan ti'in noolik
 jumps'eeel jach ki', ki' ch'ujuk.