Subject: Part of whole as a percent. (2hours, sixth grade)		
Lesson plan:	Notes:	
T: Write down subject on your notebook./ Today's subject is: <i>Part of whole as a percent</i> .	Whole class activity.	
<i>T:</i> Today we're going to talk about percentage and how to change fractions into percentage or decimals into percentage or vice-versa. <i>T:</i> Do you know what I mean?/Do you understand?	If necessary, the teacher will translate.	
<i>T:</i> <i>Let's see what they look like:/ Look at the board:</i>	If you want to say something raise your hand / put up your hand.	
<ul> <li><sup>1</sup>/<sub>4</sub> It's a fraction.</li> <li>0.25 It's a decimal.</li> <li><b>T:</b></li> <li>How do we read fractions and decimals?</li> </ul>		
Some fractions have special names: $ \frac{1}{4} a \text{ quarter} $ $ \frac{1}{2} a \text{ half} $ $ \frac{3}{4} \text{ tree quarters} $ Other fractions follow some rules:		
$\frac{2}{5}$ "two over five" or "two fifths" Read this fractions: P: $\frac{1}{3}$ "one over three " or "one third" $\frac{1}{1}$ one first are second	Stop talking! Don't talk! Be quiet! Try speak English.	
$\frac{1}{2}$ one second $\frac{1}{4}$ one forth T: Look at the symbol %. What does % stand for? P: It stands for percent.		

Do you know where "percent" come from? P:	
The word comes from Latin – centum which means hundred.	
The word pro-cent means per hundred.	
<i>T</i> .	
Let's check the key words:	
numerated – What numerated in Polish?	
What dominator in Polish?	
What does fraction bar mean?	
What does extend mean?	
D.	
r: numonated lignik	
numeralea- licznik denominator – mianownik	
fraction har - kroska ulamkowa	
extend _ rozszerz	
T:	
<i>Please, change these fractions in to percentage:</i>	
$\frac{2}{7} = \frac{40}{100} = 40\%$	
5 100 What did you do?	
<b>P</b> •	
I've extend the fraction to the denominator hundred / I've	
changed the denominator into 100.	
We have to multiply number below fraction bar and above	
fraction bar by the same number.	
T:	
Read this decimals and change into percentage.	
0.125 "zero point one two fife" or "nought point one two	
fife"	
$5.1 = 5.1 \times 100\% = 510\%$	
$0,13=0,13 \times 100\% = 13\%$	
$\frac{1}{2} = \frac{1}{2} \times 100\% = \frac{100}{2}\%$	
3 3 3 <b>T</b> :	
What do we have to do when we would like change fraction	
or decimal into percentage?	
P:	
We should multiply by 100% or extend fraction, decimal	
into denominator hundred.	
T:	
Change the percent into fraction or decimal. Reduce, if it	
possible.	
Damamhari	
The word "percent" really just means "per hundred " So 25%	
The word percent really just means per number. $50, 25\%$	
means "25 per hundred" which is $\frac{100}{100}$ .	
15	
$15\% = \frac{10}{100} = 0.15$	

$0.3\% = \frac{0.3}{100} = \frac{3}{1000}$	
$\frac{1}{2}\% = \frac{\frac{1}{2}}{\frac{1}{2}} = \frac{1}{\frac{1}{2}}$	
2 100 200 T:	
What do we have to do when we would like change	
percentage into fraction or decimal?	
We have to divide fraction or decimal by 100.	
<b>T:</b>	
Now let's do exercise 1,2,3.	
the problems. Please, translate into Polish	
the problems. Trease, translate into Tonom.	
<b>T:</b>	
Please, take your phone and login in kahoot. The three the	
best persons will get proses for working on a lesson.	
Fraction, Decimal, and Percent Conversions	
T:	
Let's sum up!	
What do I must to do when I want to go from a desimal to	
percent?	
D.	
I must divide by 100.	
Τ.	
What do I must to do when I want to go from a percent to	
decimal or fraction?	
P:	
I must multiply by 100% or extend fraction to denominator	
hundred.	
<b>T:</b> I'll give you a handoute whitch you will fold up according	
direction.	
Step one: Cut out the outer square, along the dotted lines.	
Step two: Fold each triangle into the center, so that the words	
are facing the outside, as shown below. Step three: Cut on the dotted lines to divide the Fraction Decimal and Percent	
triangle "flaps."	
Step four: Write the conversion rules under the appropriate	
tlaps.	
These exercises: are your homework./ Look at these	
exercises you must do these at home.	
-	

## Exercises 1:

## Match the percents with the correct sentence clue:

	I am half of a half.	
25%	5 cubic inches of water filled in a 20 cubic inches bottle.	
	Lam loss than	
50%	$\frac{1}{100}$	
	25 out of 5,000 contestants won a prize.	
	The chance of birthing a boy or a girl.	
30%	A flip of a coin.	
	Lam less than a half but more than one-fourth	
1%	15 out of 50 play drums in a band	
170	15 out of 50 play aratins in a band.	
I am equal to 1.		
10%	35 questions out of 35 questions were answered correctly.	
	Lam more than 1.	
100%	Instead of the \$1,200 expected to be raised. \$3,600 was collected	
	for the school's fundraiser.	
	I am a tenth of a tenth.	
300%	One cent out of one dollar.	
$\frac{1}{06}$	I am less than a fourth but more than a hundredth.	
$\frac{1}{2}^{90}$	\$11 out of \$110 earned is saved in the bank.	

# Exercises 2:

Fill in the chart converting between fractions, decimals and percents. Show work in the space provided.

<u>Fraction</u>	<u>Decimal</u>	<u>Percent</u>
$\frac{1}{8}$		
	1,125	
		$\frac{2}{5}\%$

## **Exercises 3:**

## Write each number in the alternate from indicated:

1.	$\frac{20}{100}$ as a percent	
2.	$\frac{40}{100}$ as a percent	
3.	$\frac{80}{100}$ as a percent	
4.	$\frac{85}{100}$ as a percent	
5.	$\frac{95}{100}$ as a percent	
6.	$\frac{100}{100}$ as a percent	
7.	$\frac{10}{10}$ as a percent	
8.	$\frac{1}{1}$ as a percent	
9.	$\frac{1}{10}$ as a percent	
10.	$\frac{2}{10}$ as a percent	
11.	$\frac{4}{10}$ as a percent	
12.	75% as a decimal	
13.	25% as a decimal	
14.	15% as a decimal	
15.	10% as a decimal	

23.	$\frac{9}{10}$ as a percent	
24.	$\frac{9}{20}$ as a percent	
25.	$\frac{9}{25}$ as a percent	
26.	$\frac{9}{50}$ as a percent	
27.	$\frac{9}{75}$ as a percent	
28.	$\frac{18}{75}$ as a percent	
29.	$\frac{36}{75}$ as a percent	
30.	96% as a fraction	
31.	92% as a fraction	
32.	88% as a fraction	
33.	44% as a fraction	
34.	22% as a fraction	
35.	3% as a decimal	
36.	30% as a decimal	
37.	33% as a decimal	

Scenariusz lekcji matematyki przeprowadzonej w ramach projektu: "CLIL-owy nauczyciel XXI wieku". I Społeczna Szkoła Podstawowa im. Mikołaja Reja w Kielcach: www.spoleczna.edu.pl

16.	5% as a decimal	
17.	30% as a fraction	
18.	60% as a fraction	
19.	90% as a fraction	
20.	50% as a fraction	
21.	25% as a fraction	
22.	20% as a fraction	

38.	33,3% as a decimal	
39.	3,3% as a decimal	
40.	0,3% as a decimal	
41.	$\frac{1}{3}$ as a percent	
42.	$\frac{1}{9}$ as a percent	
43.	$\frac{2}{9}$ as a percent	
44.	$\frac{8}{9}$ as a percent	