

Volume Unit

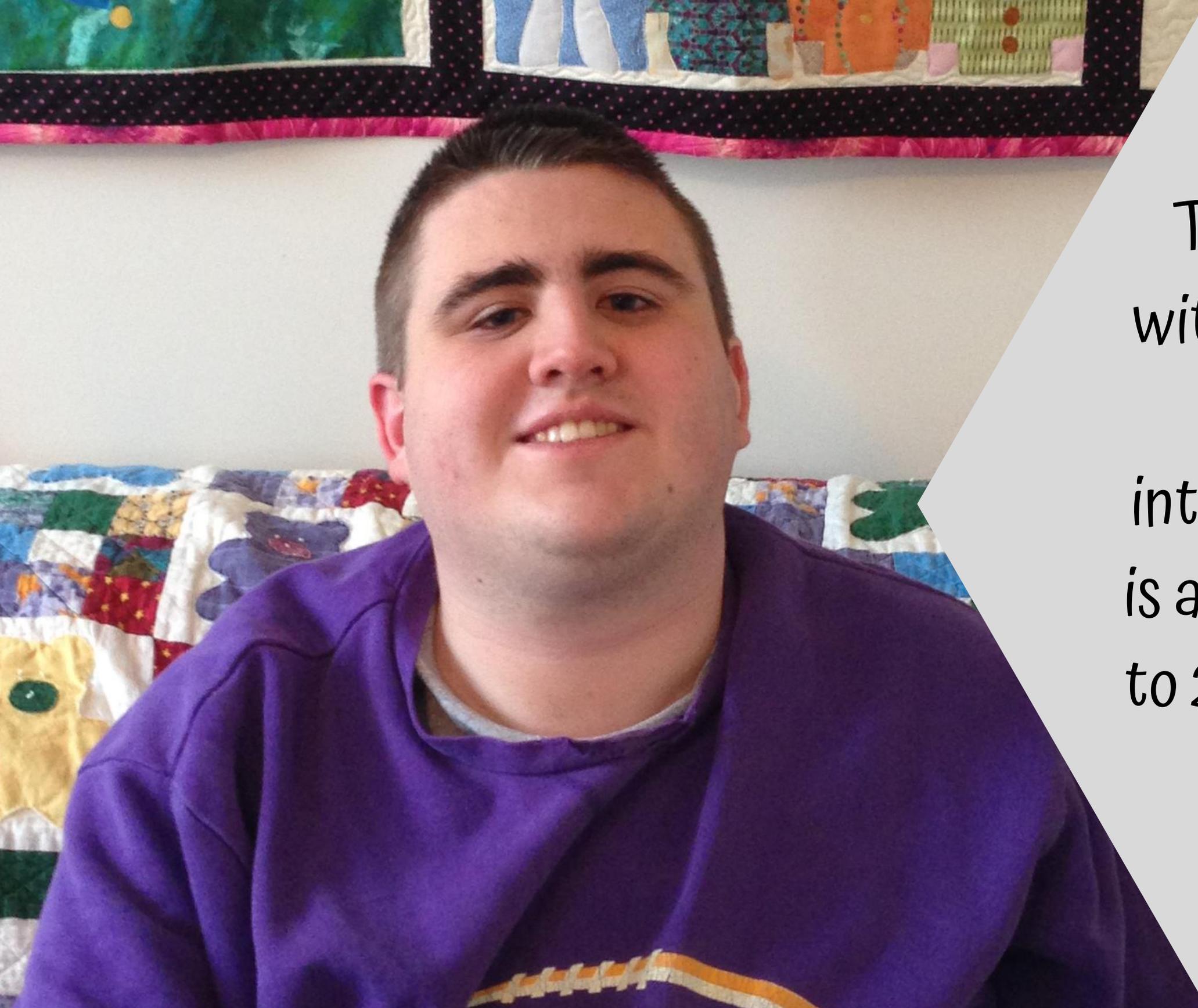
Standard units

With Digital Activities

**For
Special
Ed**

Special Needs for Special Kids





This unit was created with this guy in mind. He has autism and an intellectual disability. He is a non-reader, can count to 25 AND he is able to do this unit. He is my tester!!

Table of Contents

Pages	Activity
4-37	About how much does it hold (book 1)
38-54	Calculating volume (book 2)
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153-154	Terms of Use

This unit contains over 150 pages of material. There is a lot of repetition to give students lots of practice with these concepts.

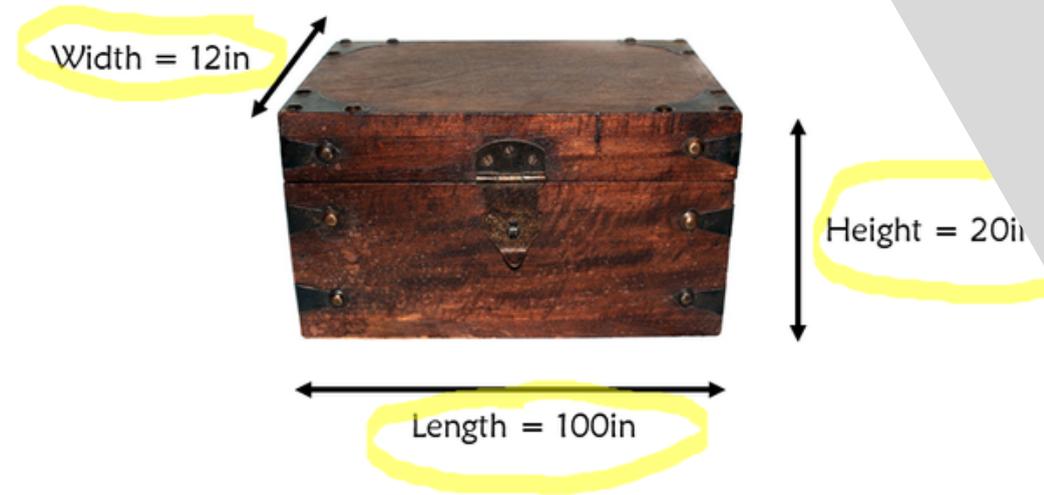
Everything highlighted in yellow comes with a digital version of the activity.

But, whether large or small, we can measure how much liquid there is in the container.



This unit contains 2 books. One is talking about the units used to estimate volume. The other book talks about how to calculate volume.

Here is the first container:



Volume = 100in x 12in x 20in

It comes in a pdf and a voice recorded version so you don't have to print it out.

The next liquid measurement is a **cup**. There is about a cup of liquid in a juice box.



Play (k)

2:05 / 5:54

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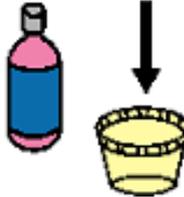
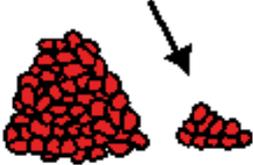


There is an mp4 version of both books which you can play in google or assign for students to watch and listen to in google classroom.

This unit comes with a vocabulary board.

Vocabulary boards are great for ALL students to assist with participation and engagement in group discussions.

Tips on how to use in the unit!!

 volume	 capacity	 liquid	 fluid ounce	fl. oz.
 cup	 pint	pt.	 quart	qt.
 gallon	gal.	 more	 less	= same
 repeat that	 I like that	 I don't like that	 I don't know	 I need a break

Also in black and white

cup

About the amount of liquid in a juice box. Equals 8 fluid ounces.



pint

About the amount of liquid in a small ice cream container. Equals 2 cups.



pt.

Abbreviation for pint.

quart

About the amount of liquid in a container of orange juice. Equals 2 pints. Equals 4 cups.

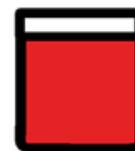


pt.

capacity

The maximum amount a container can hold.

takes up in a container.



fluid ounce

How much liquid fits in a medicine cup.



fl. oz.

Abbreviation for fluid ounce.

fl oz

Also in black and white

This unit comes with also comes with 11 vocabulary cards.

These will be helpful with the group activities and daily review.

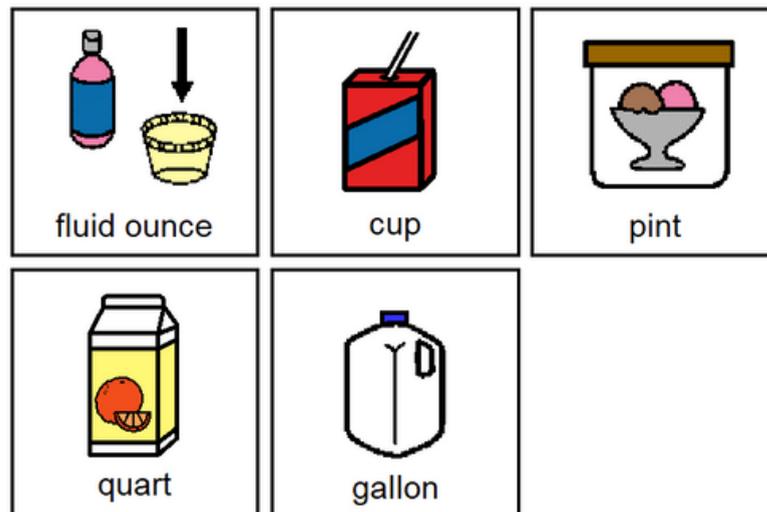
For more group activities with vocabulary cards, [CLICK HERE.](#)

Group Activities



- Activity 1
 - Make a set of volume flash cards for each student in the group
 - Show students a picture of an object and have them hold up the measurement card they would use
- Activity 2
 - Make as many copies of the recording sheet as you need
 - You will need measuring cups with milliliters listed on the side
 - Have students choose various liquids to measure
 - It is important for them to estimate the volume first to build a better conceptual understanding of how much volume relative liquids take up
- Activity 3
 - Students will need measuring tapes or rulers and a calculator
 - Gather a variety of containers
 - Have students first estimate the volume
 - Measure the length, width, and height
 - Use a calculator to figure out the volume
 - Check answer against the actual volume to see how better the more they do

Flashcards: Print a set (either as a strip or cut apart) for each student on cardstock. Laminate for longer durability.



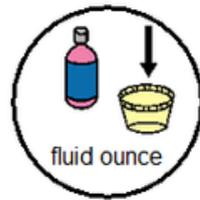
Name: _____

$$V = l \times w \times h$$

Item	Estimate Volume	length	width	height	Actual Volume

There are group activities included. There are directions, flash cards, and a recording sheet.

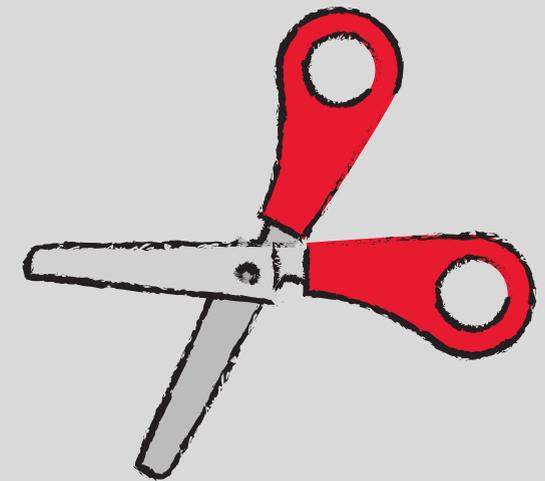
wrong answers
mixed in



errorless



There are 5 circle maps included. Each has a version that is errorless and one that has wrong answers mixed in that students will set aside.



differentiated

VOLUME CIRCLE MAP
Place the images below in the circle map that relate to quarts.

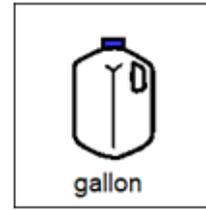
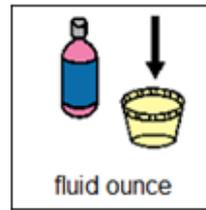
quart

syrup 4 cups juice 2 pints

dish washing soap pitcher thermos oil

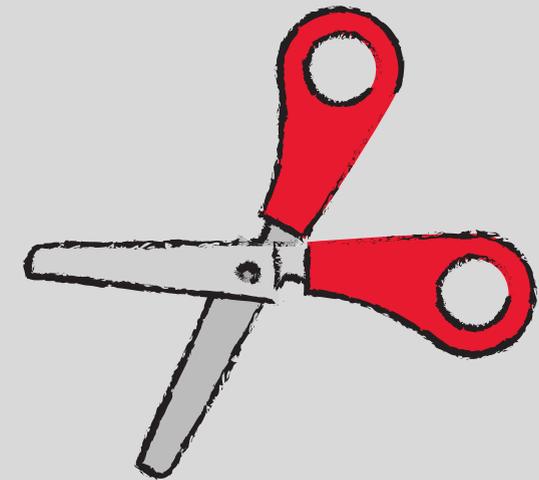
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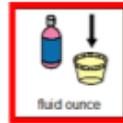
There are drag and drop versions of all of the circle maps in this unit. The differentiated version contains only correct answers.



fl oz	gasoline	nail polish	eye drops	keg
paint	soda	milk	gal	Kool-Aid
bucket of water	lotion	perfume	soy sauce	laundry soap
pool	medicine	mouth wash	pitcher of lemonade	vanilla

There are 2 sorting activities included. You can easily add color coding if needed to quickly differentiate these. This is done in the digital version.





fluid ounce



gallon

SORTING VOLUME

Move the pictures to be under the most likely unit for measuring volume. differentiated

4 quarts	mouth wash	paint	medicine	gas
lotion	gas	soda	barrel	gas
eye drops	laundry soap	perfume	gas	gas
pool	milk	fl. oz.	Kool-Aid	soda

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Each of the sorting activities are included as a digital activity. Each one come in a differentiated form using color coding.

Name: _____

Circle the **best unit** to determine the volume following containers or objects.

		
fluid ounce quart gallon	fluid ounce pint quart	cup quart gallon
		
cup quart gallon	fluid ounce quart gallon	fluid ounce pint gallon
		
fluid ounce quart gallon	fluid ounce pint gallon	fluid ounce pint quart

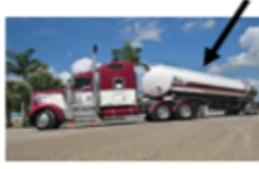


Name: _____

Circle the **best unit** to determine the volume following containers or objects.

		
fluid ounce cup gallon	fluid ounce quart gallon	fluid ounce pint gallon
		
fluid ounce quart gallon	fluid ounce cup quart	fluid ounce quart gallon
		
fluid ounce quart gallon	fluid ounce pint gallon	cup quart gallon

There is a worksheet set where students look at pictures and circle the best unit to measure the volume of that particular item. There are 2 worksheets and they come in color and in black and white.

		
<input type="checkbox"/> fluid ounce <input type="checkbox"/> quart <input type="checkbox"/> gallon	<input type="checkbox"/> fluid ounce <input type="checkbox"/> pint <input type="checkbox"/> quart	<input type="checkbox"/> cup <input type="checkbox"/> quart <input type="checkbox"/> gallon
		
<input type="checkbox"/> cup <input type="checkbox"/> quart <input type="checkbox"/> gallon	<input type="checkbox"/> fluid ounce <input type="checkbox"/> quart <input type="checkbox"/> gallon	<input type="checkbox"/> fluid ounce <input type="checkbox"/> pint <input type="checkbox"/> gallon
		
<input type="checkbox"/> fluid ounce <input type="checkbox"/> quart <input type="checkbox"/> gallon	<input type="checkbox"/> fluid ounce <input type="checkbox"/> pint <input type="checkbox"/> gallon	<input type="checkbox"/> fluid ounce <input type="checkbox"/> pint <input type="checkbox"/> quart

VOLUME WORKSHEET 1

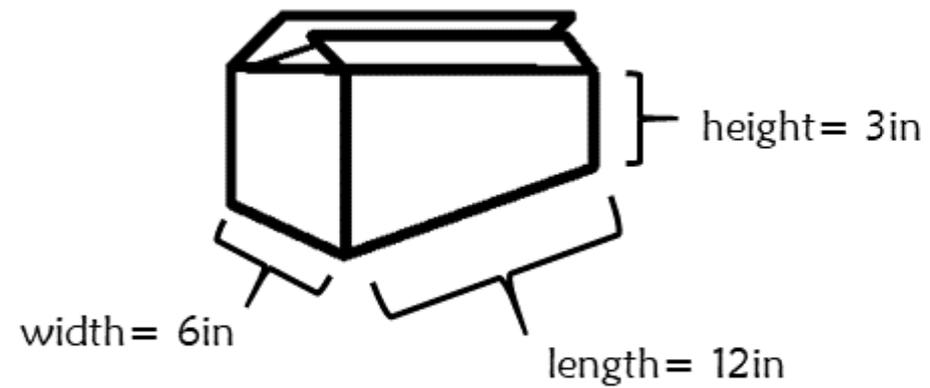
Circle the **best unit** to determine the volume following containers or objects.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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These also come in digital versions. The differentiated set has circle with dashed lines to guide students to circle the correct answers.

Calculate the volume by filling in the missing information.



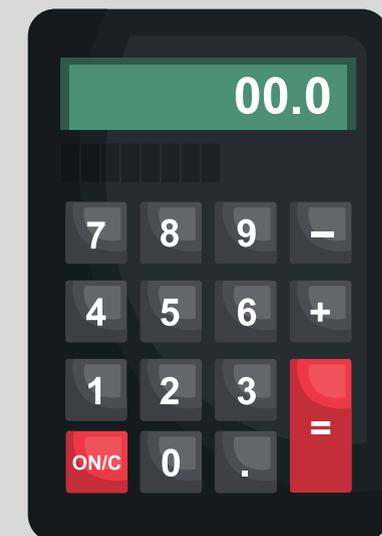
$$\text{volume} = \text{length} \times \text{width} \times \text{height}$$

$$\text{volume} = \boxed{} \times \boxed{} \times \boxed{}$$

$$\text{volume} = \boxed{} \times \boxed{} \times \boxed{}$$

$$\text{volume} = \boxed{} \text{ in}^3$$

There are 2 sets of worksheets for students to practice calculating volume using a calculator. The first set walks them through step by step.

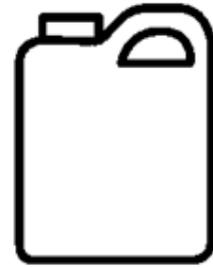


Using a calculator, determine the volume for each of the containers below. Remember $\text{in} \times \text{in} \times \text{in} = \text{in}^3$



Length = 10in
Width = 10in
Height = 30in

Volume =



Length = 15in
Width = 10in
Height = 40in

Volume =



Length = 4in
Width = 4in
Height = 8in

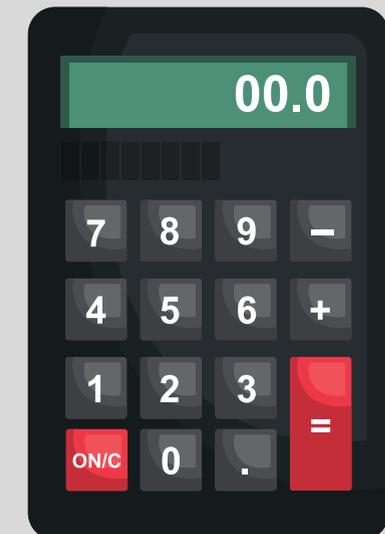
Volume =

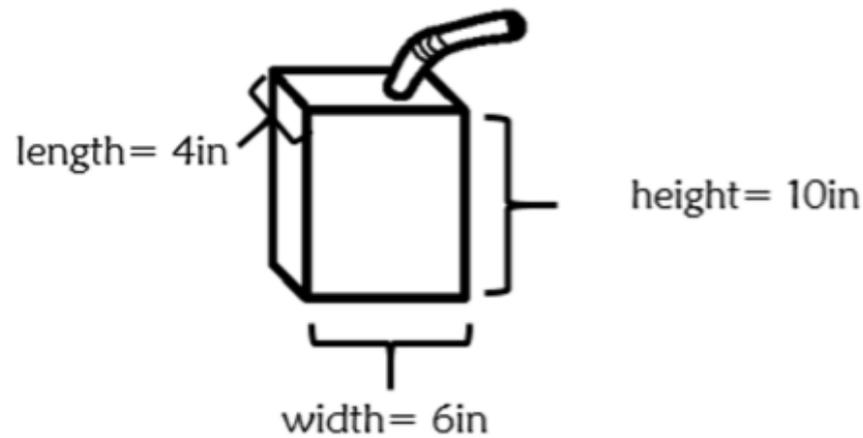


Length = 10in
Width = 10in
Height = 20in

Volume =

The second set is for more practice once they understand the steps of calculating volume.





volume = length x width x height

volume = x x

volume = in³

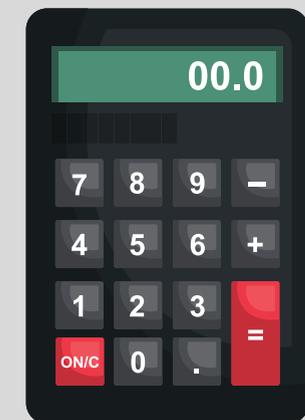
VOLUME WORKSHEET 2

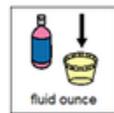
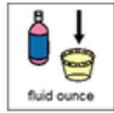
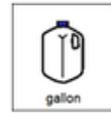
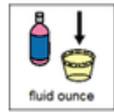
Calculate the volume by filling in the missing information.

1	2	3	240
4	5	6	460
7	8	9	100
10	11	12	600

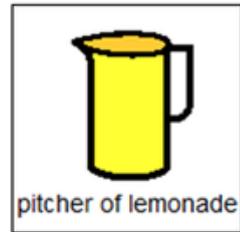
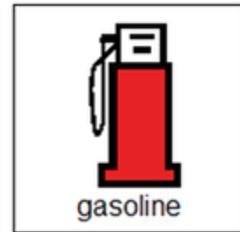
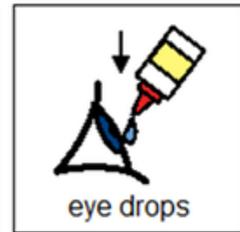
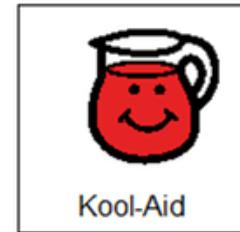
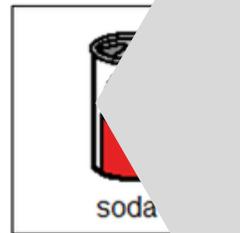
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The first of these sets comes in a digital format as well. Students will slide over the correct numbers into the boxes rather than typing them in. They will still use a calculator.





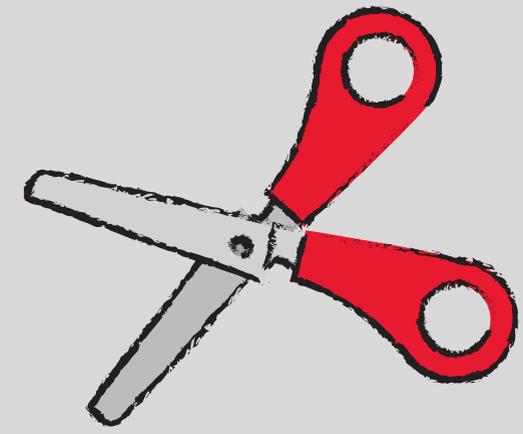
Ordering pictures for series of 3.

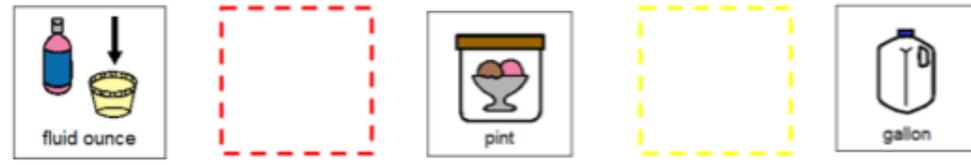


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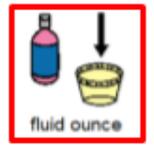
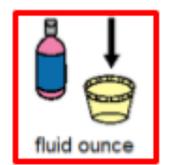
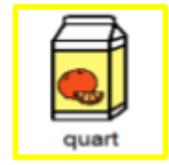
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There are 3 worksheets where students order items from smallest to largest volume.





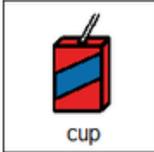
ORDERING VOLUME, SERIES OF 5 differentiated
Move the objects on the right into the boxes on the left, in order of increasing volumes.



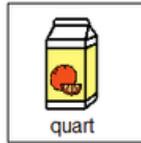
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The differentiated versions use color coding for more visual structure.

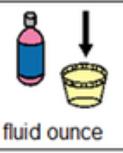
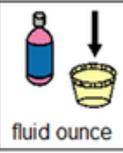
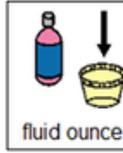
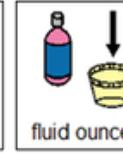
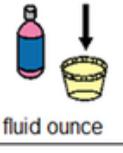
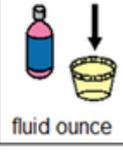
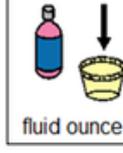
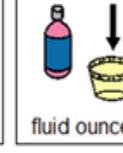
Look at each unit of measurement below and fill in the boxes.

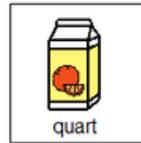
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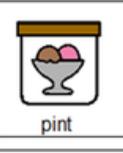
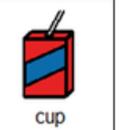
Look at each unit of measurement below and fill in the boxes.

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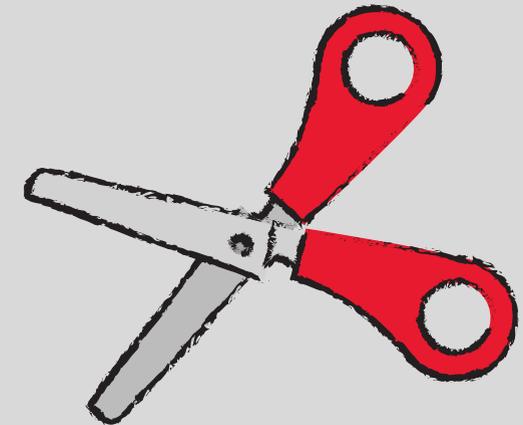
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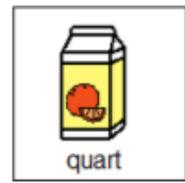
 fluid ounce	 fluid ounce	 fluid ounce	 fluid ounce
 fluid ounce	 fluid ounce	 fluid ounce	 fluid ounce

 =

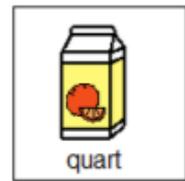
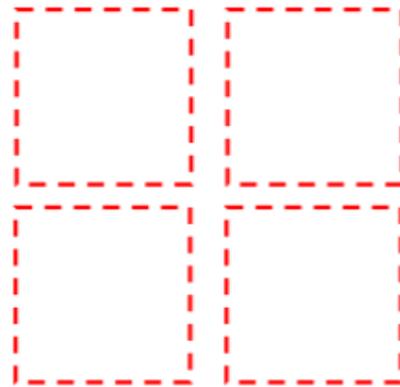
 pint	 pint		
 cup	 cup	 cup	 cup

There are 6 worksheets where students will practice matching equivalent volumes.





=



=



VOLUME EQUATIONS

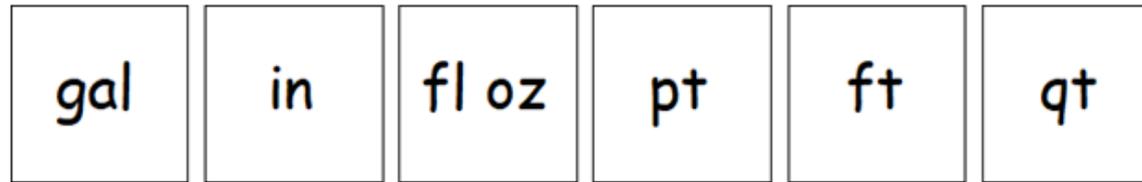
Place enough cups and pints in the squares to make up a quart.



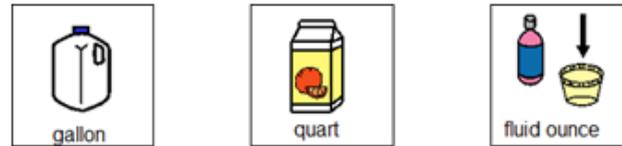
differentiated

These also come in as digital activities. The differentiated versions use color coding for more visual structure.

1. Circle the all the measurements used for volume:



2. When measuring **small** amounts use:



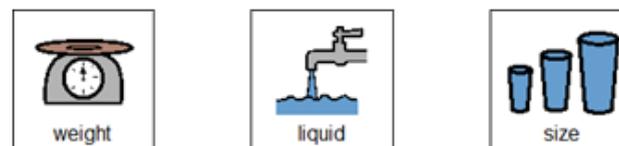
3. When measuring **larger** amounts use:



4. How many pints are in one quart?



5. Volume is a way to measure the amount of:

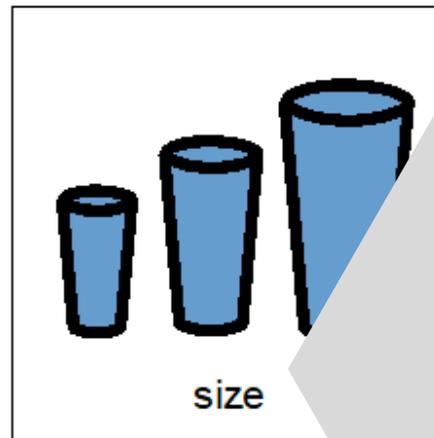
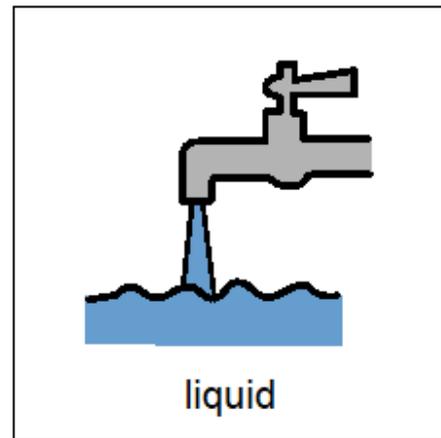
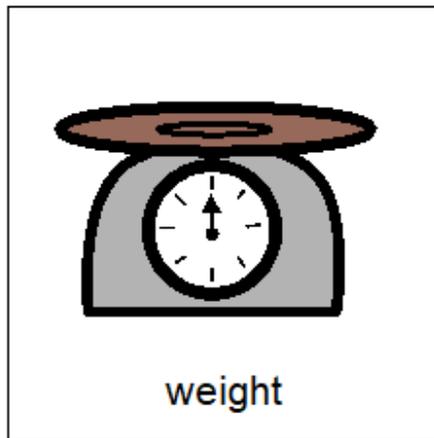


FINALLY the assessment!! There are 3 versions. This version has 10 questions with 3 picture choices for each question.

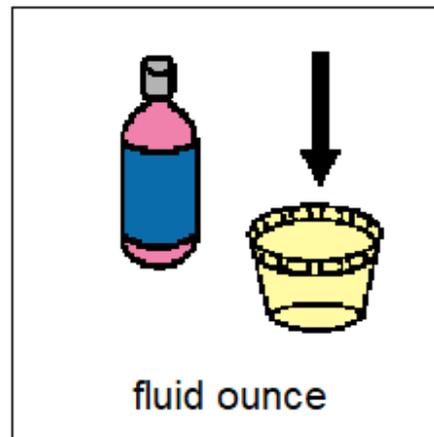
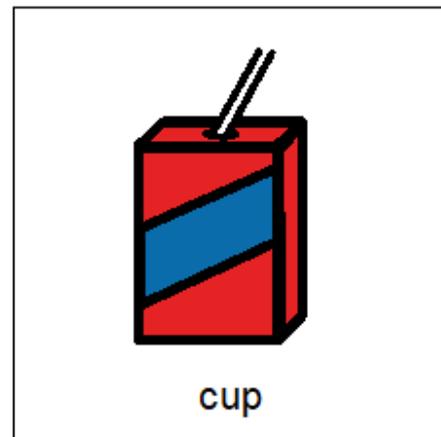
Answer key included.

Print onto cardstock or mount on index cards. Cut pictures apart and show student answer choices for each question.

Q 5



Q 6



With this version, you cut out the answer choices and glue them on index cards. Ask the student the question, and they point to the correct answer.

1. Circle the all the measurements used for volume:

gal	in	fl oz	pt	ft	qt
-----	----	-------	----	----	----

2. When measuring **small** amounts use:

 gallon	 quart	 fluid ounce
---	--	--

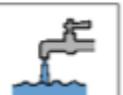
3. When measuring **larger** amounts use:

 cup	 gallon	 fluid ounce
--	---	--

4. How many pints are in one quart?

2	10	12
---	----	----

5. Volume is a way to measure the amount of:

 weight	 liquid	 size
---	---	---

VOLUME ASSESSMENT

Move the circles over the correct answers.

<input type="radio"/>		<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Christa Joy, Special Needs for Special Kids
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The digital version of the assessment looks like this. There is a differentiated version where the correct answers are already circled with a dashed line.



I realize there will be some students out there unable to do cutting activities. I have a blog post with ways to complete activities without a pair of scissors!!

[Click Here to read more!!](#)