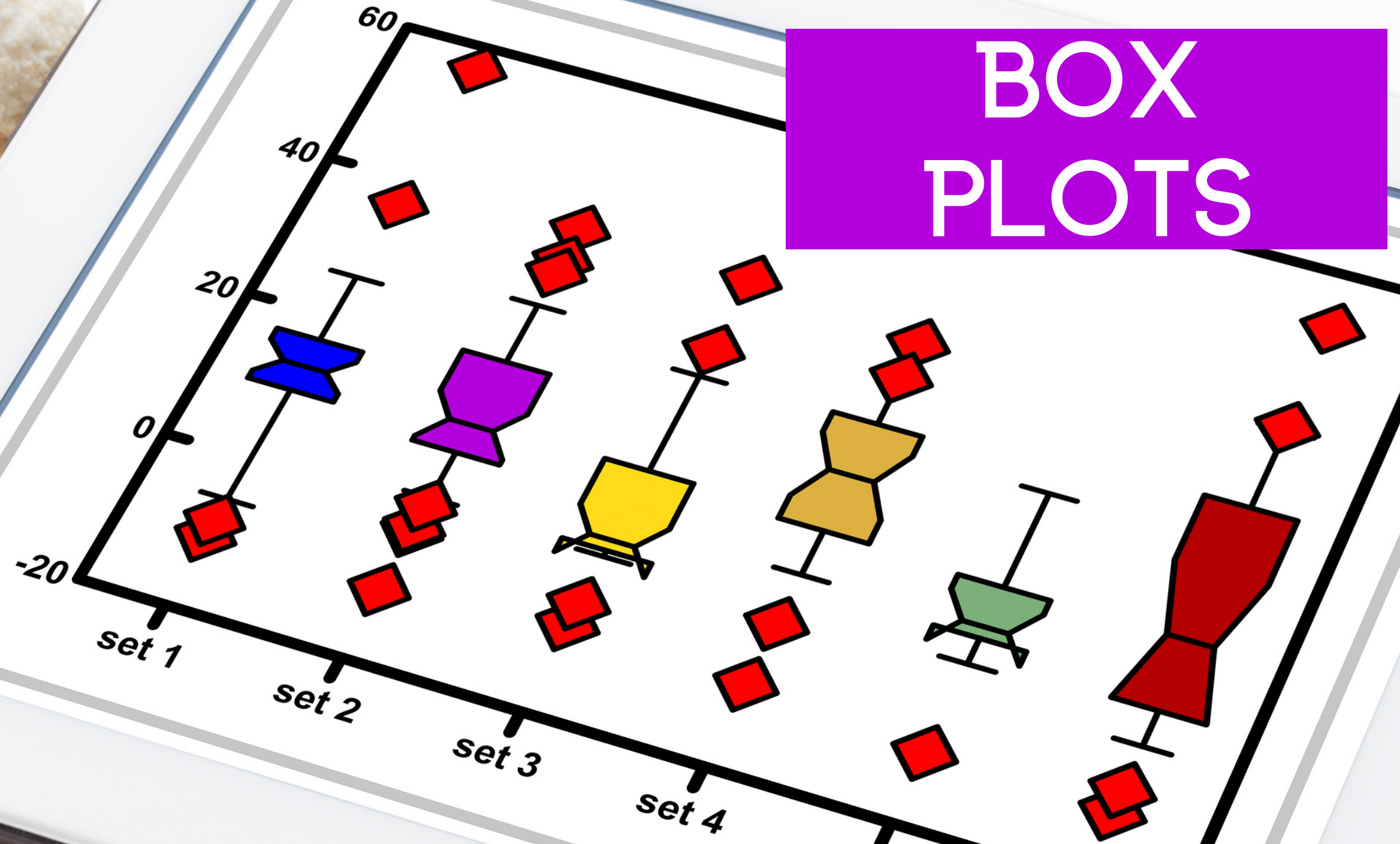


SPECIAL ED

BOX PLOTS



ALSO INCLUDES GOOGLE SLIDES

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, and loves the sound of piano keys. With some support he is able to do this unit, and enjoys the challenge. He is my tester!!

Table of Contents

Pages	Activity
4-29	Box Plots
30-32	Vocabulary board
33-37	Vocabulary cards
38-47	Vocabulary cards cut and paste
48-52	Labeling box plots
53-65	Reading box plots
66-78	Sudoku puzzles
79-84	Close worksheets
85-98	Quiz
99-100	Terms of Use

This unit contains over 100 pages of material. I have included a detailed lesson plan to help you make the most of everything in this unit including how to add some group activities.

Box Plots Lesson Plan

Preparation

- Print out a vocabulary board for each student to use throughout unit
 - Laminate or place in page protector
- Book
 - Print out, laminate, and bind
 - OR your students can listen to the pre-recorded version
- Vocabulary cards
 - Print out a set of cards onto cardstock and laminate
 - Make one set for each student and also one for the teacher to use in I Spy games

Preassessment (do day 1 before starting lesson)

- Choose the form of the assessment that best fits the learning level of your students
- Give the assessment to assess what your students may already know
- I cannot emphasize enough how important this step is. If you want to see growth, this preassessment is so important!!

Teaching Tips

1. *Color Coding:* this is a really easy way to add more structure to a matching activity. Outline or color in an empty box or sorting label. Outline or color in the corresponding picture symbols the same colors. Becomes a color matching task.
 - a. For more info, read more here:
<https://specialneedsforspecialkids.org/2015/09/05/using-color-coding-for-differentiation/>
 - b. I also have a blog post on differentiating one activity 3 ways:
<https://specialneedsforspecialkids.org/2018/10/22/differentiating-1-activity-3-ways-easily-and-effectively/>
2. *Make you own copies of the activities:* Every day I review the activity we did yesterday. For that reason:
 - a. I often complete the activity myself and often laminated it for easy review that I could use year after year.
 - b. My copies were also helpful as either a model for students who needed more support or as a way for more advanced students to self-check their work.

The lesson plans contain:

Overall tips for teaching
students with significant
needs

Quick Look

Day	Activity	Day	Activity
1	<ul style="list-style-type: none">• Book• Vocabulary activity• Labeling box plots	5	<ul style="list-style-type: none">• Book• Vocabulary activity• Reading box plots
2	<ul style="list-style-type: none">• Book• Vocabulary activity• Labeling box plots	6	<ul style="list-style-type: none">• Book• Vocabulary cut and paste• Sudoku puzzle
3	<ul style="list-style-type: none">• Book• Vocabulary activity• Reading box plots	7	<ul style="list-style-type: none">• Book• Vocabulary cut and paste• Close worksheets
4	<ul style="list-style-type: none">• Book• Vocabulary activity• Reading box plots	8	<ul style="list-style-type: none">• Review if needed• Assessment

The lesson plans contain:

A quick look at what you will do each day

Day 3

Activity	Notes	Materials
Read or listen to a recording of the book (10 minutes)	<ul style="list-style-type: none">• Read through the story, asking lots of questions• Continue to make connections between book and vocabulary board	<ul style="list-style-type: none">• Book• Vocabulary board
Vocabulary cards Scavenger Hunt (10 minutes)	<ul style="list-style-type: none">• Place one set of the vocabulary cards around the room before lesson<ul style="list-style-type: none">○ Students walk around and find them, bring them back and matching them to their own set of cards○ You can do this same activity with the vocabulary board. Just cut the individual symbols apart and place around the room.	<ul style="list-style-type: none">• Vocabulary cards (extra sets)•
Labeling worksheet review (5 minutes)	<ul style="list-style-type: none">• Review the worksheet completed yesterday	<ul style="list-style-type: none">• worksheet from yesterday
Reading box plots (10 minutes)	<ul style="list-style-type: none">• Do 1-2 of the worksheets where student read values from a box plot.• Choose the best version for your students.• One has color coding.• These worksheets get more difficult as you go along. There are 6 in total, so I would recommend doing 2 a day.	<ul style="list-style-type: none">• Worksheet
Sharing (10 minutes)	<ul style="list-style-type: none">• Each student shares one of their finished worksheets with the group using the communication method of their choice	<ul style="list-style-type: none">• Completed worksheets• Communication devices

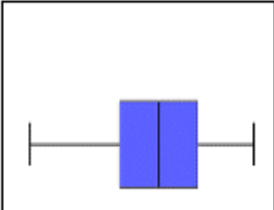
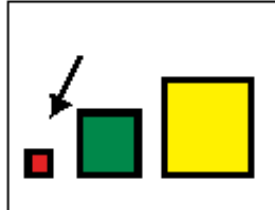
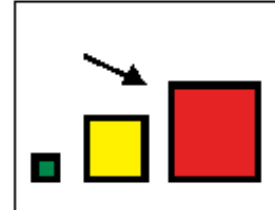
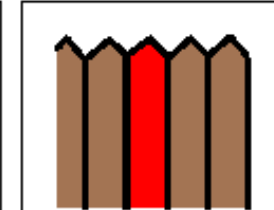

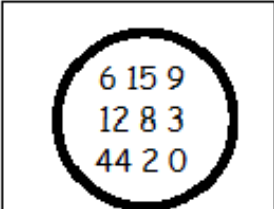
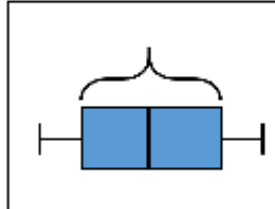
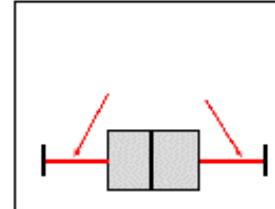
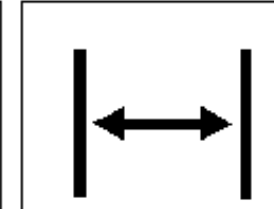



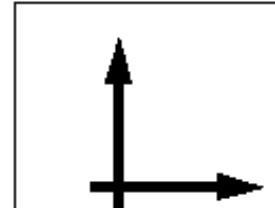




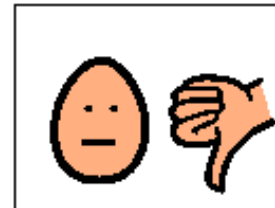


The lesson plans contain:

Detailed instructions on how that day's lesson should run

This unit comes with a vocabulary board.

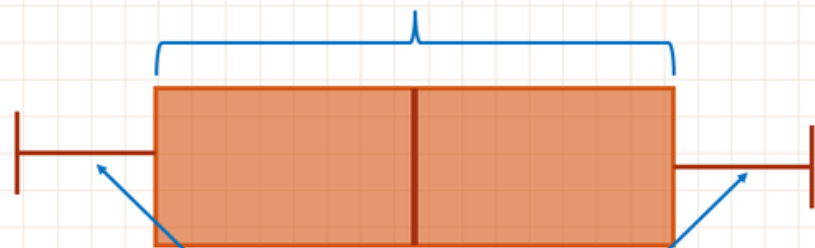
Vocabulary boards are great for ALL students to assist with participation and engagement in group discussions.

Tips on how to use in the unit!!

 box plot	 minimum	 maximum	 median	 quartile
 data set	 box	 whiskers	 spread out	 put in order
 information	 label	 axis	 more	 less
 repeat that	 yes	 no	 I don't know	 I need a break

We are going to learn all about the box in the upcoming slides. The whiskers show you how spread out your data is.

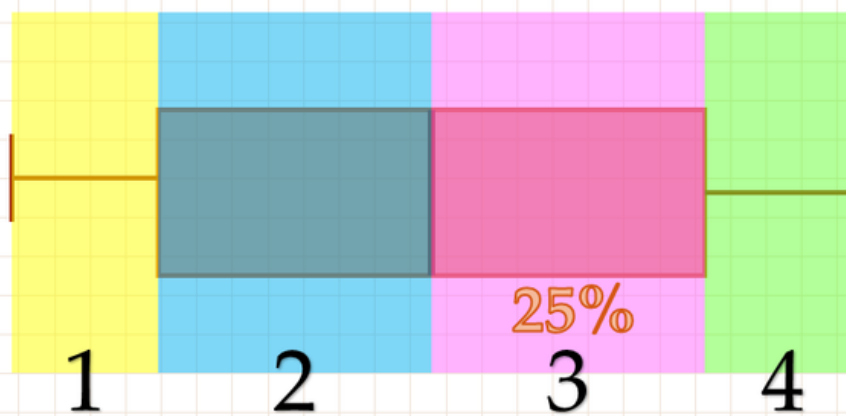
box



whiskers

Christa Joy, Special Needs for Special Kids

The third quartile contains the next 25% of the numbers.



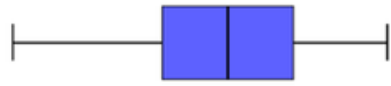
Christa Joy, Special Needs for Special Kids

There is a book with this unit using simple text and photos. It is 26 pages and is an overview of the effects of the human population on the earth.

Both come in pdf versions as well as a voice-recorded powerpoints (so you don't have to print it out.)

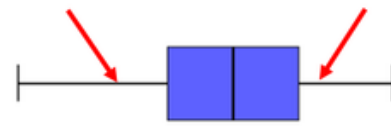
box plot

Way to display how data is spread out using a box and whiskers.



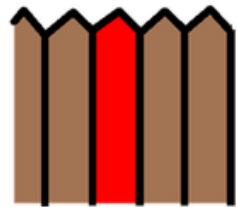
whiskers

Lines on either side of the box showing how far to the minimum and maximum data point.



median

Middle number in a data set.



minimum

Smallest number in a data set.



maximum

Largest number in a data set.



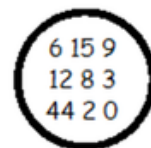
quartile

25% or $\frac{1}{4}$ of the numbers in the data set.



data set

Numbers or values that are being looked at and used to draw box plot.



There are 7 vocabulary cards that come in color and black and white.

Included are suggestions for group activities to do with these each day.

box plot

Way to display how data is spread out using a box and whiskers.



whiskers

Lines on either side of the box showing how far to the minimum and maximum data point.



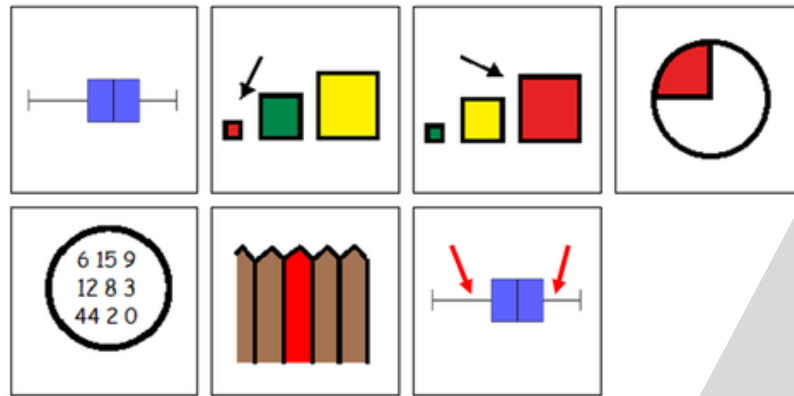
median

Middle number in a data set.



minimum

Smallest number in a data set.



There is an activity where students will match either the picture to the definition or the definition to the picture (harder).

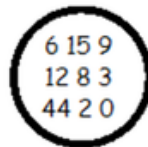
maximum



quartile



data set

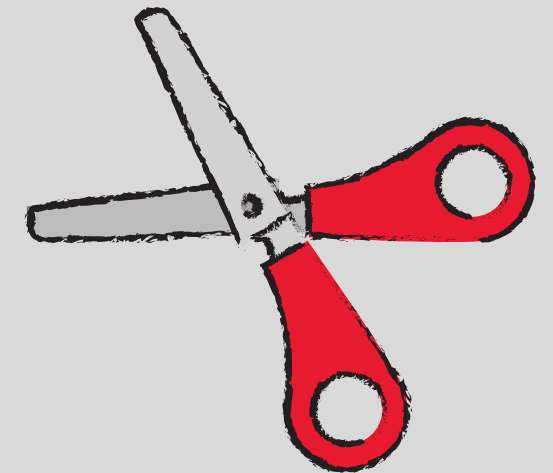


Lines on either side of the box showing how far to the minimum and maximum data point.

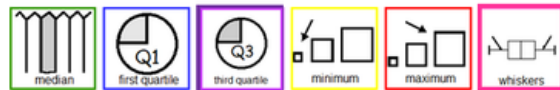
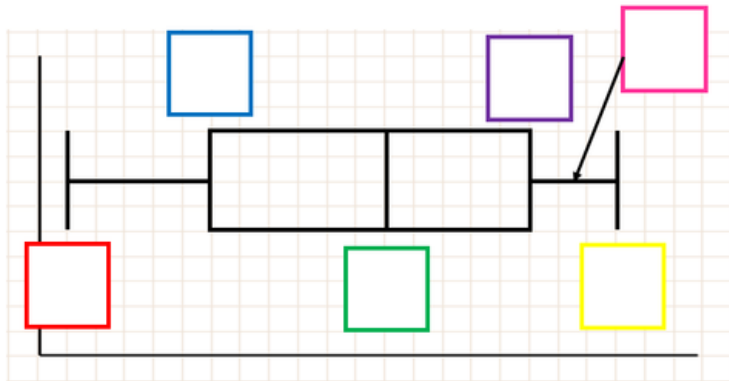
Smallest number in a data set.

Largest number in a data set.

25% or 1/4 of the numbers in the data set.

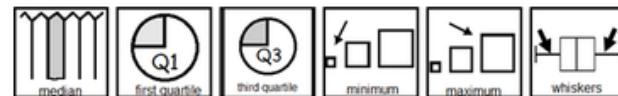
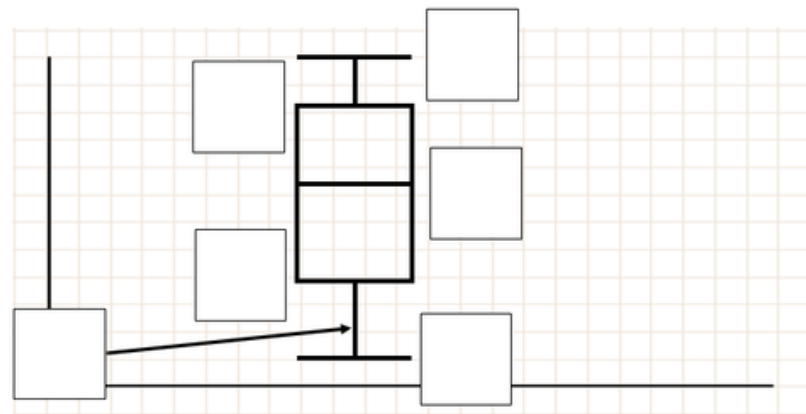


Label the following box plot.



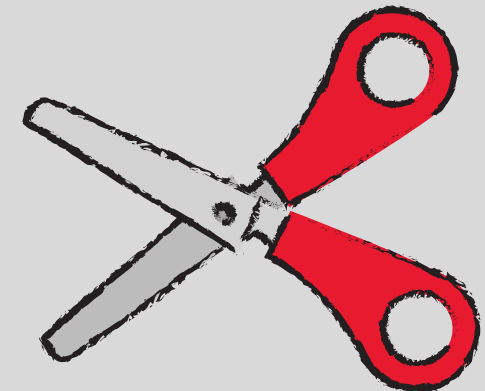
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Label the following box plot.

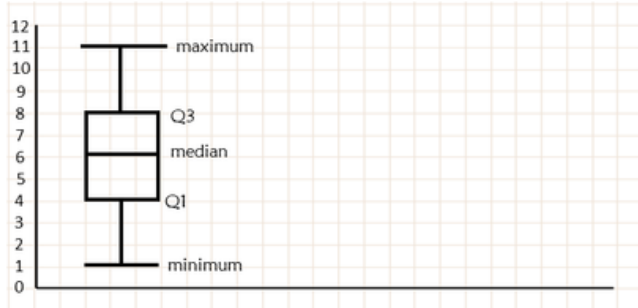


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There are 2 activities where students label standard box plots. There is a color-coded version included.



Find the following values based on the box plot below. Draw a line from the point on the box plot to the number on the axis.



Median =

Minimum =

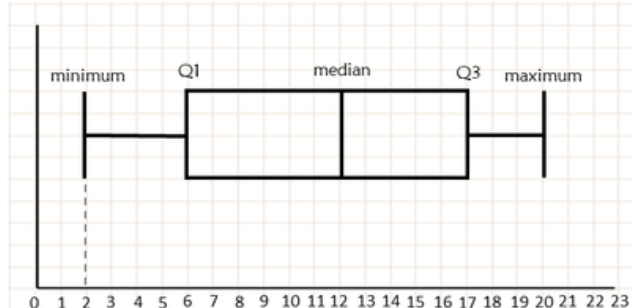
Maximum =

Q1 =

Q3 =

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Find the following values based on the box plot below. Draw a line from the point on the box plot to the number on the axis.



Median =

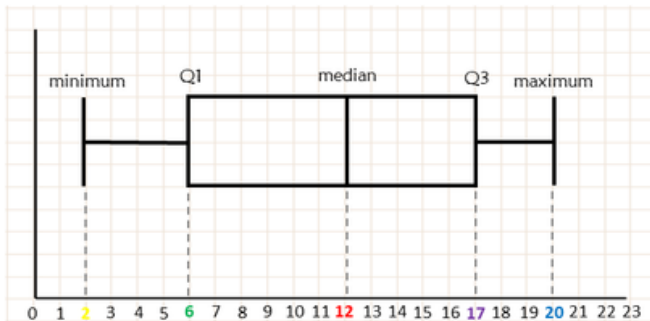
Minimum =

Maximum =

Q1 =

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Find the following values based on the box plot below. Trace the line from the point on the box plot to the number on the axis.



Median =

Minimum =

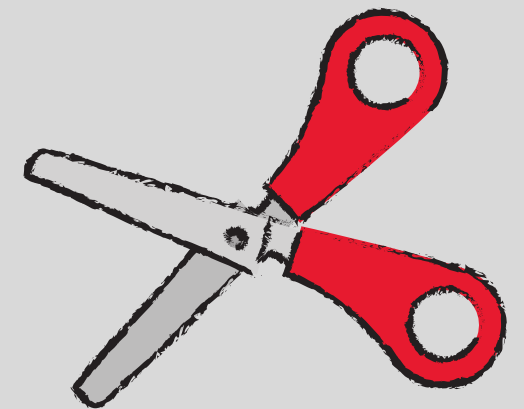
Maximum =

Q1 =

Q3 =

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There are 6 worksheets where students read box plots. There are color-coded versions included.



Box Plots

 minimum	 median	 quartile	 data set	
 quartile	 data set		 box plot	 maximum
 box plot	 maximum			
 data set	 quartile			
 maximum	 data set		 minimum	
 median	 quartile	 maximum		

Box Plots

		 minimum	 median
		 quartile	 maximum
	 minimum		 quartile
 median	 quartile	 maximum	

There is a Sudoku puzzle in this unit as well. This is a great way to work with the new vocabulary!!

There are 2 versions plus answer keys.



The Picture Commu Worldwide. Use

Place the following images in the empty squares on the previous page, completing the sudoku puzzle.

 median	 median	 minimum	 minimum
 maximum	 maximum	 quartile	

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Box plots

1. A box plot is a of the data set.
2. The whiskers show how out the data is.
3. There are things you can learn from a box plot.
4. The median is the number.
5. The whisker starts at the .

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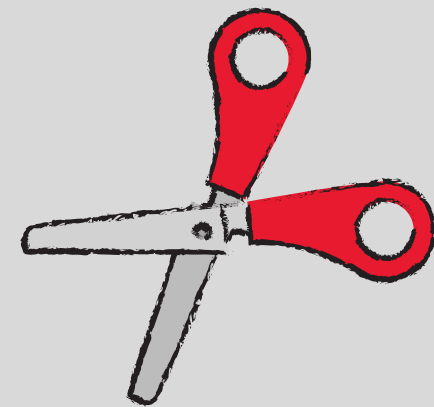
Box Plots

6. The whiskers end at the .
7. There are quartiles.
8. The box starts at the quartile.
9. The box ends at the quartile.
10. A box plot displays the .

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Close worksheets are a great informal assessment. There are two worksheets that cover the main points from the book.

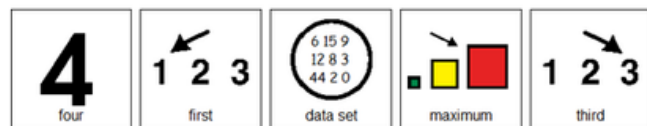
Answer key included.



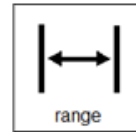
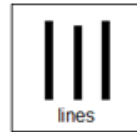
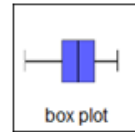
Box plots (page 1)



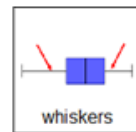
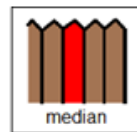
Box Plots (page 2)



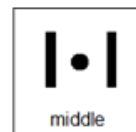
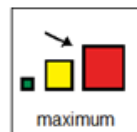
1. This is a picture using 5 points in a data set is a:



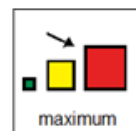
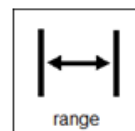
2. These tell you how spread out the data set is:



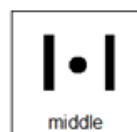
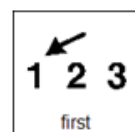
3. The beginning of the whiskers is what value in the data set?



4. The end of the whiskers is what value in the data set?



5. The median is what value in the data set?

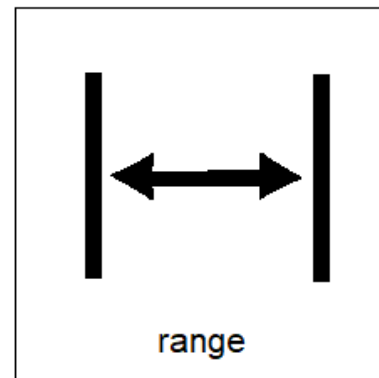
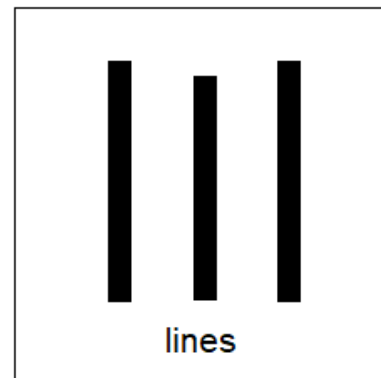
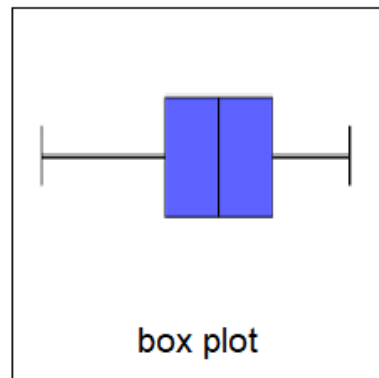


FINALLY the assessment!!
There are 3 versions. This version has 5 questions with 3 picture choices for each question, plus a box plot to label.

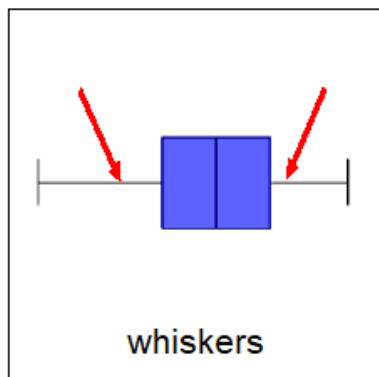
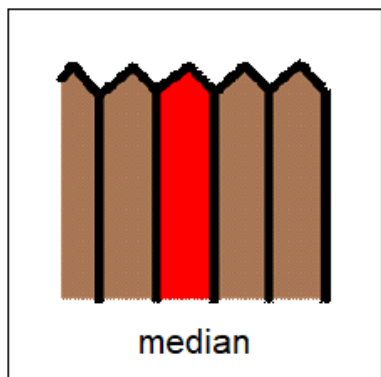
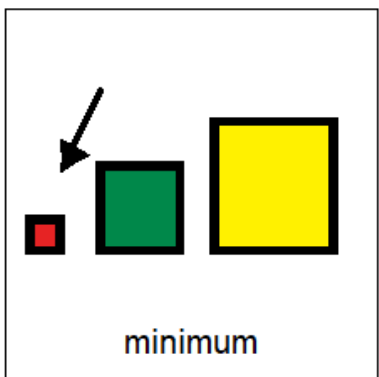
Answer key included.

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

Q 1



Q 2



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. This is a picture using 5 points in a data set is a:
 - A. Box plot
 - B. Lines
 - C. range
2. These tell you how spread out the data set is:
 - A. Minimum
 - B. Median
 - C. whiskers
3. The beginning of the whiskers is what value in the data set?
 - A. Minimum
 - B. Maximum
 - C. middle
4. The end of the whiskers is what value in the data set?
 - A. Range
 - B. Minimum
 - C. maximum
5. The median is what value in the data set?
 - A. First
 - B. Middle
 - C. last

This is your traditional multiple choice version. It can also be used as a recording sheet if your students are using the version with index cards.

The next thing we can find out is the smallest number in the data set, or the **minimum**. This is where the first whisker starts.



Play (k)

Christa Joy, Special Needs for Special Kids

2:04 / 5:10

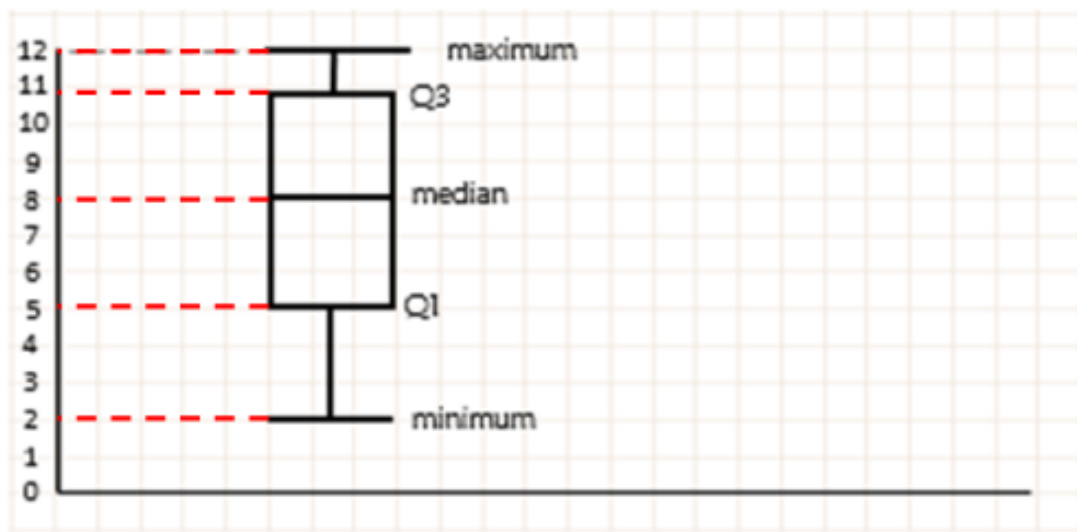
CC

Settings

Full Screen

Watch the movie on Box Plots

There is a video of the book read aloud.



Find the following values based on the box plot.

5

2

12

8

11

Median=

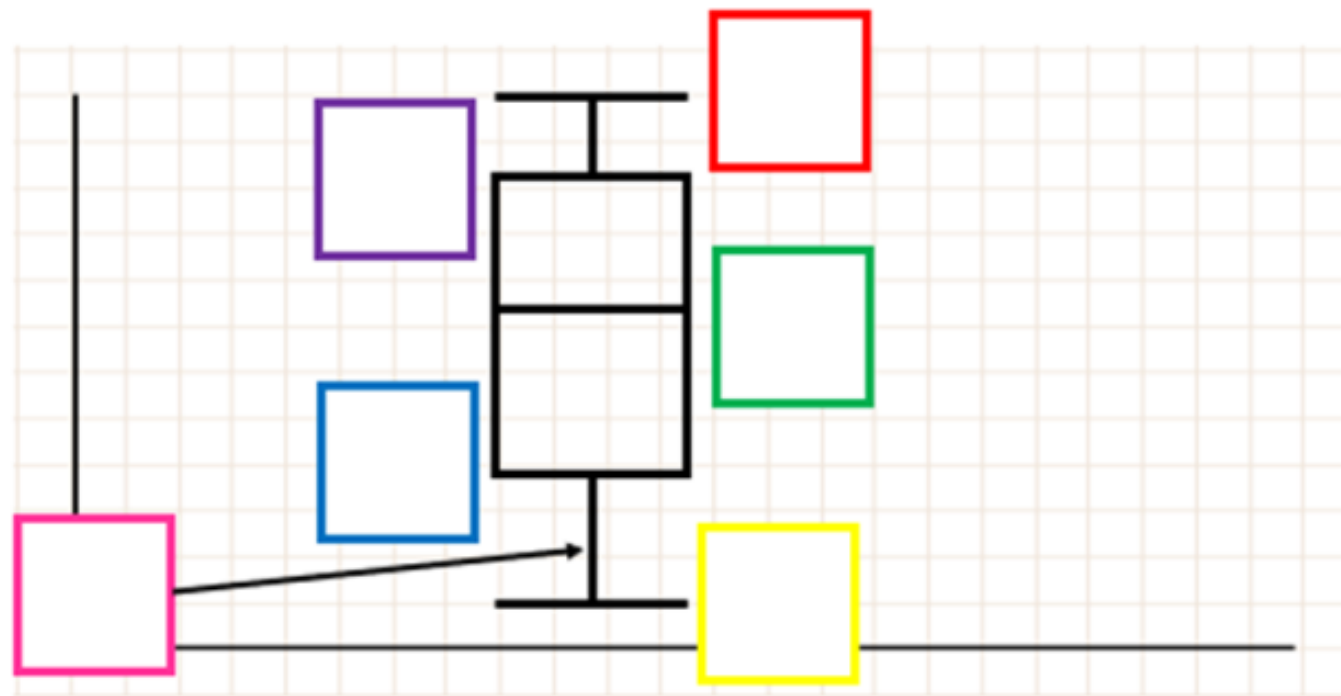
Minimum=

Maximum=

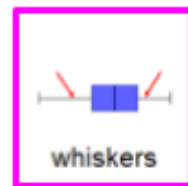
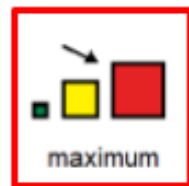
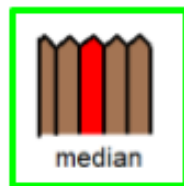
Q1=

Q3=

There are digital versions of the activities included. Students click and drag the answers.



Label the parts of a box plot.



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There are 2 sets, one that includes differentiation shown here.



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!!

All of the activities (except the book) come in color and black and white.

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