# Bar Graph Unit for Autism and Special Education 

## *Ocean Animal Theme*



Bar Graphing: Set 2, Worksheet 4
Instructions: Have the student count the number of fish of each color and record the


| 6 |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| 5 |  |  |  |  |
| 4 |  |  |  |  |
| 3 |  |  |  |  |
| 2 |  |  |  |  |
| 1 |  |  |  |  |

## Created by Positively Autism

## Individual Math Instruction

## from Dr. Caldwell, founder of

## Positively Autism



Hi! I'm Dr. Nicole Caldwell and I've been working with students on the autism spectrum for about 14 years.

One of the things I specialize in is working with children who have difficulties in math or anxiety about math.

I use research-based strategies that specifically address math comprehension and retention to make custom lessons for your child.

I love helping kids and teens feel more confident and successful with math.

If you're in the Dallas/Rockwall, Texas area and would like to learn more about working with me, please send me an e-mail to nicole@positivelyautism.com and we'll set up a free initial consultation.

I can also do online math instruction if you're outside of the Dallas area. This works best for older students.

# Connect with Dr. Nicole Caldwell 

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# Pre-Activities: <br> "Priming" as a Way to Introduce the Topic Written by Dr. Nicole Caldwell 

Priming is a strategy that parents and teachers can use to help a student with autism prepare for upcoming activities. With priming, you're essentially "previewing" activities or information with a student before he or she participates in that activity. This helps make the activity more predictable and familiar to the student with autism.

As an example, before teaching one of my science tutoring clients about magnets, I allowed him some time to play with the magnets and show him some fun things they could do. Details of how I set-up this activity are on this blog post.

Some considerations for priming include:

- Use the same materials that the child will use for the activity (such as showing an example of a spelling test before he takes it or looking at a set of magnets before they're used in science class),
Priming should be casual and relaxed. You don't really have to teach anything during a priming session. The goal is for the child to "get to know" the materials so that he or she will be familiar with the materials when it is time to do the activity.
- Priming should incorporate frequent opportunities for reinforcement. Make it fun for the student by providing praise and rewards for participating, as appropriate.


## Pre-Activities: <br> "Priming" as a Way to Introduce the Topic

Examples of priming (for different ages and topics) include:

- Looking through a picture book at home that the child's teacher will be reading at school,
- Looking at pictures of the zoo before a field trip,
- Reading over an assignment with the student in advance, explaining it and answering questions,
- Showing an example of a completed assignment (as well as a rubric that lists expectations for the assignment and how it will be graded),
- Demonstrating how to use a computer program and having the child watch you before trying it himself or herself.

To use priming with the graphing activities, you can have the printed trains available to show the child, and just casually interact with the materials: count them with the child, talk about the colors, sort them by color, etc.

You can also have the graph sheets printed and count the squares with the student or just model the counting yourself, talk about the numbers and the trains on the pages, etc.

You don't need to have the student make all correct responses or to prompt correct responses. Just allow the student to interact with the materials in a way that is fun and relaxed.

## Set 1:

## Cut and Paste Fish on the Graph and Count

- Do the worksheets in order. They are designed to start very simply and gradually work up the student to a full graph. You can do each worksheet more than once with different numbers of fish each time to ensure mastery before moving on to the next worksheet.
- Cut out the fish on the page 9, or have the student cut them out.
- The student can glue the fish on the worksheet or you can laminate all of the materials so you can re-use them by writing on the answer spaces with a dry erase marker and putting tape on the back of the fish.
- On this first set of worksheets (the first four), the student directly puts the fish on the graph, then counts them. This helps the student understand what you're counting on the graph before you move to the next sets of worksheets where the student will count and color in the blocks to represent the fish.


## Photo of How to Use Set 1



I've also made set 1 into a fishing game that my students enjoyed. You can read about the game here: https://www.autismhomeschoolsuccess.com/single-post/2019/12/07/Fishing-and-Graphing-Game


## Fish to Paste on the Graphs



## Bar Graphing: Set 1, Worksheet 1

Instructions: Have the student count the number of fish of each color and fill in the graph by placing a fish in each box. You can also work on identifying the colors.


How many blue fish?

## Bar Graphing: Set 1, Worksheet 2

Instructions: Have the student count the number of fish of each color and fill in the graph by placing a fish in each box. You can also work on identifying the colors.


How many blue fish?
$\qquad$

## Bar Graphing: Set 1, Worksheet 3

Instructions: Have the student count the number of fish of each color and fill in the graph by placing a fish in each box. You can also work on identifying the colors.

$\qquad$ How many yellow? $\qquad$
$\qquad$

## Bar Graphing: Set 1, Worksheet 4

Instructions: Have the student count the number of fish of each color and fill in the graph by placing a fish in each box. You can also work on identifying the colors.


How many blue? $\qquad$ How many yellow? $\qquad$
$\qquad$

$$
\begin{aligned}
& \text { Set 2: } \\
& \text { Reading Information from a Graph }
\end{aligned}
$$

On these pages, the student will record information from the graph.

The student can write the number or you can write numbers on small pieces of paper for the student to choose the correct number and glue or tape it in the correct space.

These pages are designed to start with having the fish picture on the graph, then gradually work the student up to having just the colored columns to represent the fish instead of the fish pictures.

## Bar Graphing: Set 2, Worksheet 1

Instructions: Have the student count the number of fish of each color and record the answers to the questions. You can also work on identifying the colors.


How many blue? $\qquad$ How many yellow? $\qquad$
$\qquad$

## Bar Graphing: Set 2, Worksheet 2

Instructions: Have the student count the number of fish of each color and record the answers to the questions. You can also work on identifying the colors.

$\qquad$ How many orange fish? $\qquad$
$\qquad$
$\qquad$

## Bar Graphing: Set 2, Worksheet 3

Instructions: Have the student count the number of fish of each color and record the answers to the questions. You can also work on identifying the colors.


How many blue fish? $\qquad$ How many
fish? $\qquad$
$\qquad$
$\qquad$
$\qquad$

## Bar Graphing: Set 2, Worksheet 4

Instructions: Have the student count the number of fish of each color and record the answers to the questions. You can also work on identifying the colors.


How many red fish? $\qquad$ How many
fish? $\qquad$

How many blue fish? $\qquad$ How many orange fish? $\qquad$

Name:
Date: $\qquad$

## Bar Graphing: Set 2, Worksheet 5

Instructions: Have the student count the number of fish of each color and record the answers to the questions. You can also work on identifying the colors.


How many red fish? $\qquad$ fish? $\qquad$
$\qquad$
$\qquad$

Name: $\qquad$

## Bar Graphing: Set 2, Worksheet 6

Instructions: Have the student count the number of fish of each color and record the answers to the questions. You can also work on identifying the colors.


How many orange fish? $\qquad$ How many
fish? $\qquad$
$\qquad$

## Set 3: <br> Color Blocks on the Graph and Count

This set is similar to set 1, with the exception that the student is coloring the appropriate number of blocks based on how many fish of each color you put on the table/desk/work area.

## Bar Graphing: Set 3, Worksheet 1

Instructions: Have the student count the number of fish of each color and fill in the graph by coloring the squares. You can also work on identifying the colors.


How many blue fish?

## Graphing: Set 3, Worksheet 2

Instructions: Have the student count the number of fish of each color and fill in the graph by coloring the squares. You can also work on identifying the colors.


How many blue fish?

How many red fish? $\qquad$

## Graphing: Set 3, Worksheet 3

Instructions: Have the student count the number of fish of each color and fill in the graph by coloring the squares. You can also work on identifying the colors.


How many blue? $\qquad$ How many yellow? $\qquad$
$\qquad$
$\qquad$

## Graphing: Set 3, Worksheet 4

Instructions: Have the student count the number of fish of each color and fill in the graph by coloring the squares. You can also work on identifying the colors.


How many blue? $\qquad$ How many yellow? $\qquad$
$\qquad$
$\qquad$

## Graphing: Set 3, Worksheet 5

Instructions: Have the student count the number of fish of each color and fill in the graph by coloring the squares. You can also work on identifying the colors.


How many blue? $\qquad$ How many yellow? $\qquad$
$\qquad$
$\qquad$

## Graphing: Set 3, Worksheet 5

Instructions: Have the student count the number of fish of each color and fill in the graph by coloring the squares. You can also work on identifying the colors.


How many blue? $\qquad$ How many yellow? $\qquad$
$\qquad$

# Set 4: <br> Games and Extensions 

The following graph can be used for these extension activities:

1. Roll dice with fish on them (printable on the next page) and graph how many fish of each color you roll.
2. Graph the colors of toy fish the child has.
3. Pull fish cards from a bag and graph the ones you pull out.
4. Graph the number the child has of different types of toys (fish, dolphins, sharks, etc.).


## Bar Graphing: Games and Extensions

Use this graph for one of these activities:

1. Roll dice with fish on them and graph how many trains you roll.
2. Graph the colors of toy fish the child has.
3. Pull fish cards (pictures of fish) from a bag and graph the ones you pull out.

$\qquad$
$\qquad$
$\qquad$

## Bar Graphing: Blank Graph

Use this graph for the extension activities by drawing in your own items to graph and writing your own questions.


