

**Neurons to Neighborhoods:**  
Public School Model of Education for  
Children with Autism  
and Autism Spectrum Disorders (**ASD**)

**Youth Development Clinic of Newark, Inc.**  
**500 Broad St.**  
**Newark NJ 07102**

# Who Are We?

- The Youth Development Clinic (YDC) is a 52 year old professional non-profit that offers a range of behavioral health services for children and families. This work includes consultation, evaluation, and counseling.
- Our goal is to use empirically-based, and culturally-relevant methods to cultivate the social, emotional, and educational well-being of children and their families, in the communities in which they live.
- In the past ten years, YDC has focused intensively on providing services to pre-school children in schools and community-based settings.

- In our work with young children, we noticed the high incidence of students with autism and autism spectrum disorders (ASD) in classrooms.
- Research shows that New Jersey has the largest incidence of autism and ASD in the country. Compared to the national autism rate of 1 in 145 , New Jersey's rate is **1 in 94**. In fact, 1 in 60 boys in New Jersey are diagnosed with ASD.
- Many of these children were undiagnosed, in inappropriate academic placements, or were sometimes being unnecessarily placed in out-of-district schools at significant inconvenience to them and their families and considerable cost to their home school districts.

# Furthermore...

## **School Districts have had to respond to changes in Federal and State education law**

- Since 2002, the federal government has required public schools to comply with rigorous No Child Left Behind academic standards, often without sufficient financial support.
- Due to budget constraints, the New Jersey State Department of Education is requiring more students to be kept in-district in a least restrictive environment for all special services.
- In New Jersey, the need is great for in-district, cost-effective, autism-specific education services. The big challenge is that many schools do not have the capacity and expertise to implement this mandate.

# Our Response

In response to this need in the community,  
YDC developed

## **Neurons to Neighborhoods:**

**A Public School Model of Education for  
Children with Autism  
and Autism Spectrum Disorders (ASD).**

## The YDC Neurons to Neighborhoods Model:

A public school autism classroom model that integrates aspects of several empirically-based approaches to working with students with Autism.

The model also assists school districts in meeting the federal mandate for educating students in the “least restrictive environment”.

Our model is designed to meet the needs of students with Autism by educating and socializing them in their neighborhood schools. We work with school districts to increase their capacity to build and maintain autism education programs that support the child in the home, school, and community.

Our model includes a comprehensive process of needs assessment, staff training, physical and visual classroom structuring, on-going consultation, and evaluation.

# The Theoretical Foundations of our Model:

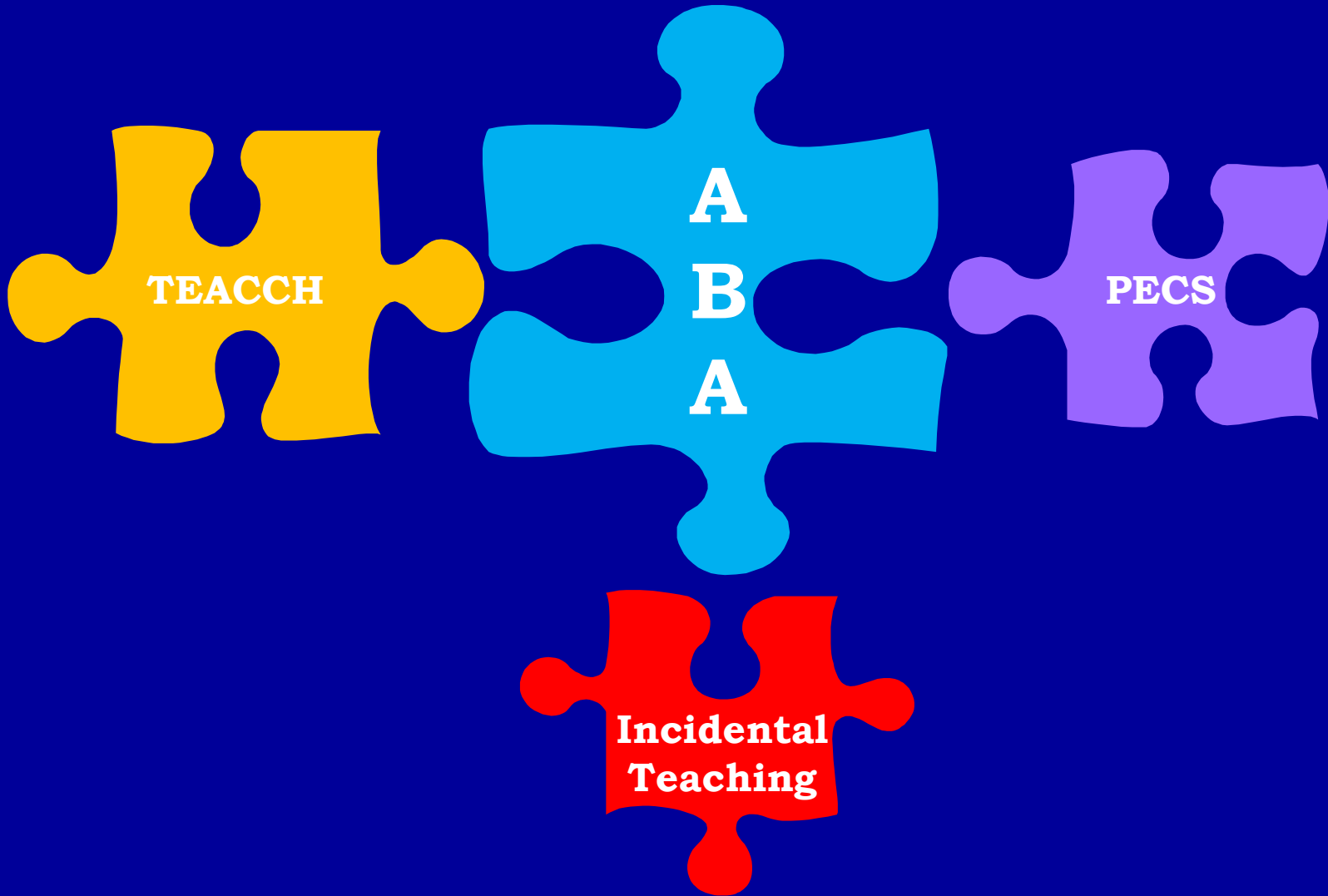
**Applied Behavior Analysis:** The formal and structured use of positive reinforcement strategies to produce behavior change in children with autism. Using a one-to-one approach a child is exposed repeated to a skill until it is mastered.

**TEACCH:** A structured educational approach that capitalizes on the strengths of children with autism, including their preference for visual information. This approach fosters independence and self-motivation for task completion.

**Incidental Teaching:** A model of child-led interaction that fosters communication and social interaction between student and adults. This approach is useful in the Development of appropriate play skills.

**Picture Exchange Communication System (PECS):** A card exchange system to improve a child's communication.

# The YDC Neurons to Neighborhoods Model



# How we Implement the Model

## Step One: Needs Assessment

The YDC team meets with key individuals in the school system to determine the needs with respect to education services for students with Autism.

The team works to determine a set of goals and desired outcomes that the school district wants to achieve with respect to autism program services.

# How we Implement the Model

## Step Two: Plan of Action

YDC develops a plan through which the school district can achieve its autism education goals and outcomes.

The plan will include proposals for the following –

- Level of programming needed
- Strategies to achieve “buy-in” from others
- Staffing for the project
- Resource requirements
- Parent involvement
- Cost and savings

# How we Implement the Model

## Step Three: Classroom Structure

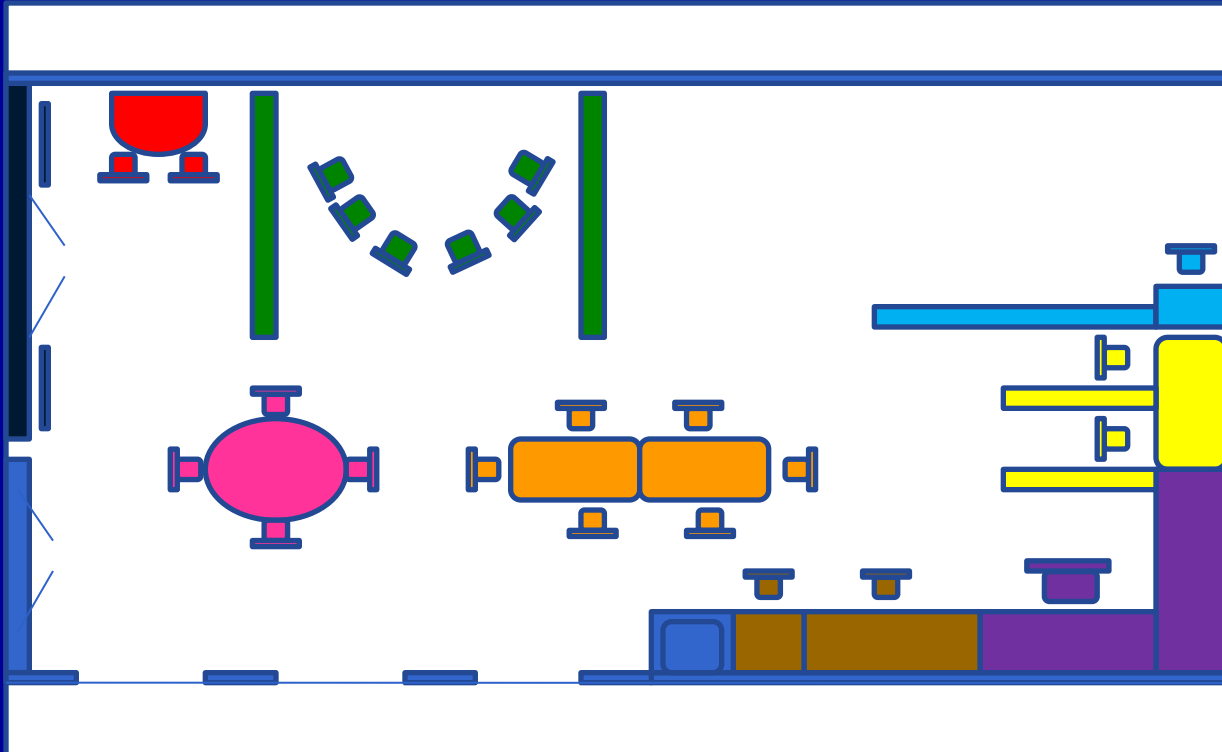
Once YDC and the school district reach an agreement, the YDC staff begins to develop the structure of the classroom.

The classroom design for the Neurons to Neighborhoods project includes an emphasis on the physical and visual structure of the environment.

The classroom is designed to maximize the child's ability to develop skills and also increase independence and self-motivation.

# How we Implement the Model

## Step Three: Classroom Structure



- Black – Transition Area
- Red – Computers
- Green – Circle Time
- Pink – Small Group
- Orange – Large Group
- Blue – Sensory/Leisure
- Yellow – Work Alone
- Purple – Teacher Prep
- Brown – Work w/Teacher

# How we Implement the Model

## Step Four: Staff Training

YDC provides a series of trainings to all staff and administrators who will be involved in the autism education program. The trainings focus on theoretical and practical issues in working with students with autism in the school setting. The trainings also help school staff to be fully aware of the role of YDC specialists in the implementation and maintenance of the program.

### Topics include:

Current Topics in Autism  
Behavior Management  
Classroom /Physical structure  
Learning Strategies

# How we Implement the Model

## Step Five: Ongoing Consultation

YDC will provide on-going consultation to administrators and classroom staff. Consultation services will include problem-solving for program-wide and classroom issues, parent workshops and meetings, monitoring of classroom structure, support in data collection and behavior plan development, selection of students for classrooms, behavior management issues, and additional staff trainings.

# How we Implement the Model

## Step Six: Program Evaluation

Two times a year (January and June), YDC will conduct program evaluations. These evaluations will focus primarily on the progress of the autism program and the effectiveness of the YDC staff from the perspective of the administrators, school staff, and parents.

YDC will also develop a report on student progress that will be available to the district at the end of the academic year. The main goal of the evaluation process is to help YDC be more responsive to the needs of our partners.

# Sample Autism Program Start-Up Costs

Resources	Start Up Costs for First Year of Program ( for 8 students)	
Hiring of Special Ed Teacher with Autism Certificate	1 teacher with training	\$55,000
Hiring of Paraprofessionals @20,000 per person	4 Paras	\$80,000
Benefits (@ \$15,000 per person)	5 staff	\$75,000
YDC Consultation/Training Services		
Autism Specialist	\$75,000	
YDC Supervision of Autism Specialist	\$20,000	
Training sessions for Autism Teacher, para professionals, general school staff, specialties, parents ( 8 trainings)	\$8,000	
Program Evaluation (is this working for you?)	\$12,000	
Meetings/Consult with School Administration staff	\$10,000	
<b>Total YDC</b>		<b>\$125,000</b>
Special Classroom Furniture		\$10,000
Classroom Supplies		\$5,000
Computers		\$4,000
<b>Autism Plan Costs to District</b>		<b>\$354,000</b>
Tuition Saved (@75,000 per student)		\$600,000
Transportation (@ 15,000 per student)		\$120,000
<b>Costs to District Without Autism Program</b>		<b>\$720,000</b>
<b>Total Savings to District of Autism Plan in First Year</b>		<b>\$366,000</b>

# Data Sample from Current Project

- In 2008-9 school year, YDC instituted a cost-effective public school model for children with autism.
- Preliminary data from first six months show immediate cost-savings to school district.
- The School District saved \$500,000 by keeping 8 pre-school students in-district. It is projected that next year, the School District will save over \$1 million by keeping 16 students in-district.
- Preliminary data show significant improvement in academic, social and self-help skills for students with ASD in the first six months of implementing the YDC Public School Model.

# Benefits

## The YDC Neurons to Neighborhoods Model will lead to:

- Significant cost savings to school districts who implement this program over the long term.
- Significant lifestyle benefits to students with ASD and their families.
- Significant educational benefits to students with ASD.
- A more knowledgeable, consistent and effective classroom staff.
- A more stable classroom learning environment.