



Implementation Guide

Academic Readiness Intervention System™

Complete Curriculum for the Autism Classroom







Implementation Guide

Acknowledgements

Stages Learning Materials would like to gratefully acknowledge the many contributors who made the ARIS curriculum possible.

Creator and

Lead Author: Angela Nelson, J.D., Ed.M.

Writers: Sophia Chung, Ed.M.; Heather Dorn, M.S., BCBA;
Victoria Hrebicek, Ed.M.

Editors: Cindy Bowers, J.D.; Jennifer Frakes;
Leslie Stebbins, MLIS, Ed.M.

Contributors: Tameika Meadows, BCBA, M.Ed.; Courtney Chase, M.A.;
Michael P. Soria; Jenna Wharff, Ed.M.; Sam Blanco, Ph.D., LBA, BCBA;
Rebecca Pagitt-Mungai, Ed.M.

Designers: John Milano; Corey Grant; Kristin Nichols, Ed.M.

Advisors: John Richards, Ph.D. and David Dockterman, ED.D.

Harvard Graduate School of Education

Essential to the development of ARIS has been the dedicated contributions of numerous graduate student interns from the Harvard Graduate School of Education.

We would also like to thank Chris Spence, Ed.M.; Patricia Martinez, Ed.M. and Laura Danforth, Ed.M. for their important contributions to the development of tools and resources underlying the ARIS curriculum.

And lastly, we would like to thank you, the teachers and parents, who have provided feedback on the Language Builder Series, which serves as the core of our new curriculum, and the teachers and graduate students who provided feedback as we developed and piloted our new ARIS curriculum.

A Letter from Stages Learning Materials CEO and President Angela Nelson

We know that as educators and parents you are passionate about helping young children develop and grow. We share your passion, and we are excited to be sharing our new curriculum with you.

The ARIS curriculum is the culmination of a lifelong dream for me.

Over 25 years ago, I was privileged to work with Dr. O. Ivar Lovaas, a pioneer in autism research and therapy and head of the premier program for the treatment and education of children with autism at UCLA. At that time, there was a complete lack of resources specifically designed for children with autism. It was in response to that need that Stages Learning Materials was born.

My goal from the start was to create world-class materials that would provide teachers, specialists, and parents with easy-to-use tools to help children with autism at a time when researchers were laying the foundation for successful early interventions.

Today, Stages research-based Language Builder Series has become a staple in home and school programs and is regularly used in U.S.-based education research. We are the leading developer of learning tools for children with autism.¹

At the heart of all Stages Learning Materials resources is Applied Behavior Analysis (ABA) therapy. Forty years of research demonstrates that ABA therapy is effective in helping children with autism make significant developmental gains.² All the resources at Stages are designed to be used with ABA, and the ARIS curriculum is no exception.

Over the years, we've embraced innovation, updating our products and tools to keep pace with what teachers have told us they need in the classroom and with the latest research on what works best for teaching young children with autism.

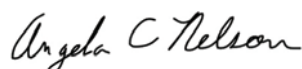
We have heard your requests:

- Requests for having a well-designed curriculum that entails minimal preparation and training and can be used "right out of the box."
- Requests for taking the guesswork out of meeting new standards.
- Requests for a print-based curriculum that provides personalization and easy record keeping tools so that you can focus on teaching.
- Requests for a structure that supports ABA, even for teachers with minimal or no background in ABA.
- And requests to make it fun: Teaching is hard work, but that doesn't mean an autism curriculum can't provide imaginative games and activities to reinforce learning, as well as an occasional teaching tip designed to bring a smile to your face!

I hope that my dream is your dream as well: To continue to reach young learners with autism and help them develop the skills they need to be successful. I feel grateful to have an amazing "A" team that helped develop ARIS.³

We are here to support you as you embark on using the state of the art ARIS curriculum. Please don't hesitate to reach out to us at any time.

Best,



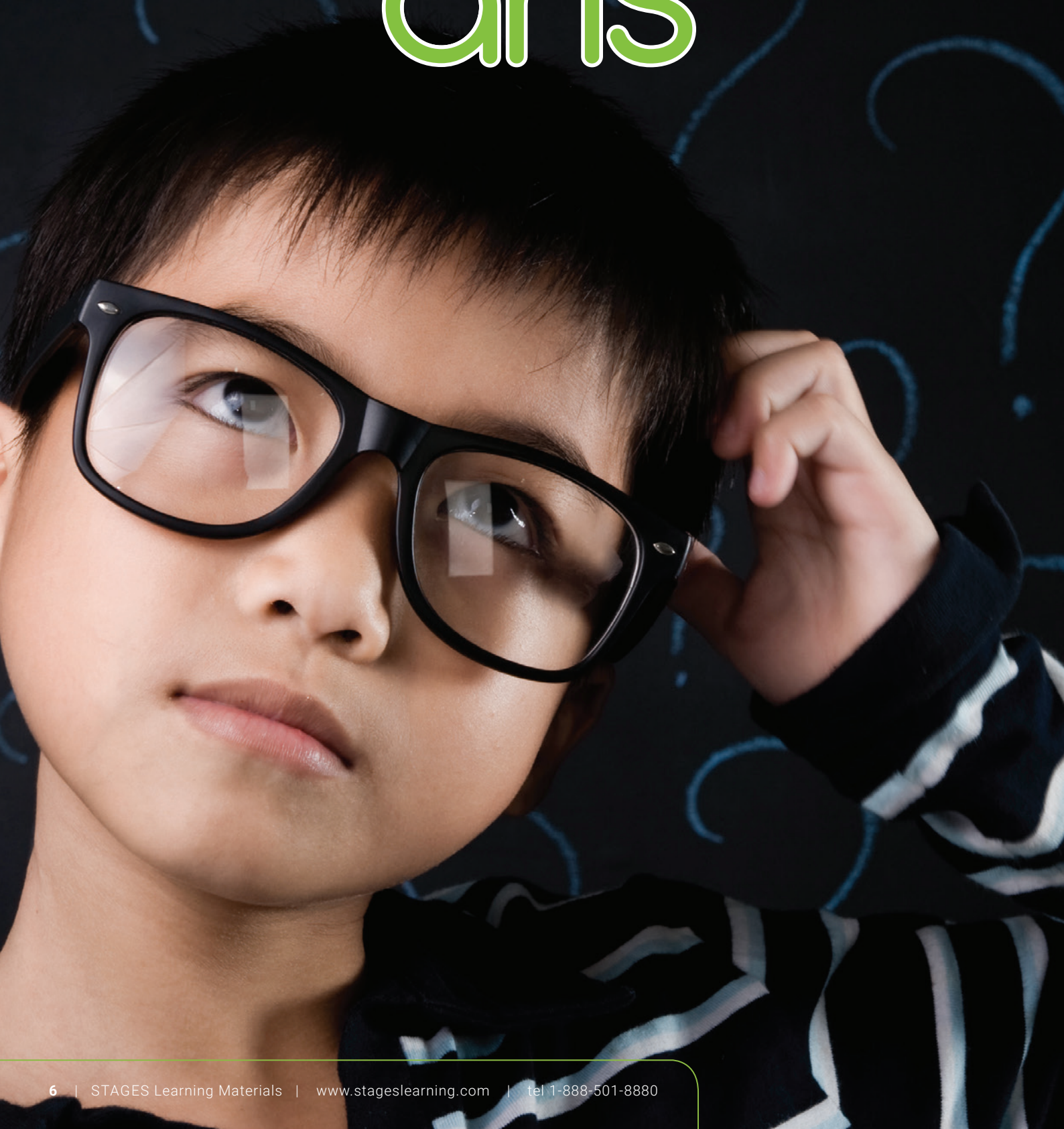
Angela Nelson
Angela Nelson, J.D., Ed.M.
Stages Learning Materials



¹ Please see: <https://www.stageslearning.com/pages/aris-white-paper> for a list of research studies using the Stages' Language Builder Series.

² See the Lovaas institute website: <http://www.lovaas.com/lovaasnote.php> for a review of the research on ABA therapy.

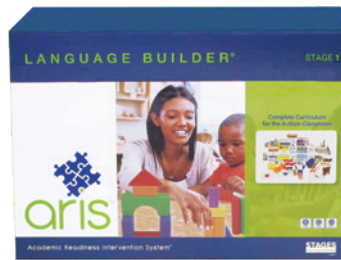
³ More on the Amazing ARIS "A" team can be found on the acknowledgments page, as well as in a special "placeholder lesson folder" in the Stage 1 box of the ARIS curriculum.



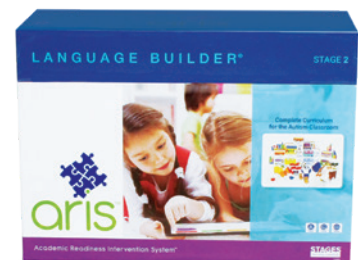


How is ARIS Organized?

Language Builder: ARIS offers clearly written lessons, as well as the physical photo and manipulative materials you need to implement the lessons with your students. The 202 ARIS lessons are divided into 2 boxes of 93 and 109 lessons each.



The first box offers 93 Stage 1 introductory and prerequisite lessons.

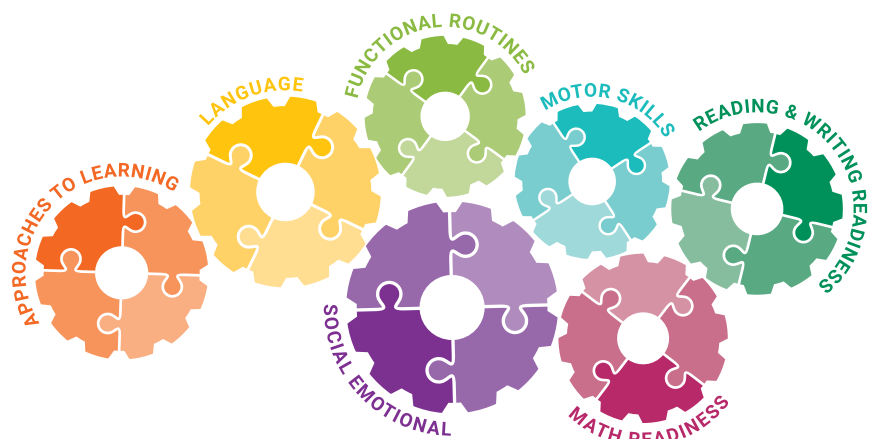


The second box provides 109 Stage 2 lessons with higher-level content and activities.

The lessons in Language Builder ARIS are divided into 7 categories:

- Approaches to Learning
- Language
- Social-Emotional
- Functional Routines
- Motor Skills
- Math Readiness
- Reading Readiness

Each category is then subdivided into more specific subjects, making it easy to locate the lessons that fit your student's needs.



Content Categories

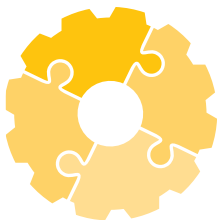


Approaches to Learning

The Approaches to Learning content category in ARIS includes lessons that provide a foundation for students to succeed in the rest of the program. In short, these lessons help students learn how to learn. Developing children's abilities in the Approaches to Learning category prepares them for future learning, and many of the Approaches to Learning lessons are prerequisites for the lessons in the other 6 categories. As such, this is often the first place you will start with children who are new to the program.

The Approaches to Learning content category has 7 sub-categories:

- **Attention & Imitation**
- **Following Directions**
- **Matching**
- **Sorting & Classifying**
- **Understanding Concepts of Time**
- **Patterns & Sequencing**
- **Recall & Recital**



Language

The lessons in the Language content category are designed to provide students with basic language concepts and skills. These concepts and skills will help them communicate with the world around them by naming and describing objects, making needs and desires known, and interacting or conversing with others.

The Language content category has 4 sub-categories:

- **Receptive Language**
- **Expressive Language**
- **Parts of Speech**
- **Intraverbals**

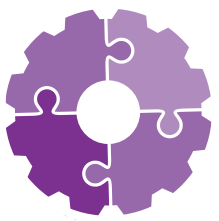


Motor Skills

The ARIS Motor Skills content category contains lessons that support development of the fine and gross motor skills that most typically developing children acquire prior to entering kindergarten. These skills enable children to participate in social and play-related activities, such as coloring, crafts, and puzzles; sports and recreation; self-help activities like feeding, grooming, and dressing themselves; actions of independent living like opening containers, drawers, and doors; and academic skills, such as writing.

The Motor Skills content category has 2 sub-categories:

- **Fine Motor**
- **Gross Motor**



Social-Emotional

The Collaborative for Academic Social Emotional Learning has identified 5 cognitive, affective, and behavioral competencies: self-awareness, self-management, social awareness, relationship skills, responsible decision making (CASEL, n.d.). The ARIS Social-Emotional content category provides concrete lessons to address these 5 behavioral competencies.

The Social-Emotional content category is broken into 3 sub-categories:

- **Independent Play/Work**
- **Emotional Health and Well-Being**
- **Group Play and Socialization**

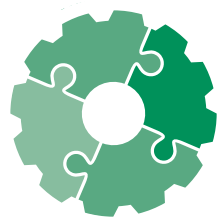


Functional Routines

Functional routines are the regular events of daily living which require specific and organized behaviors to complete. Language Builder: ARIS Functional Routines lessons address major functional routines required for children to accomplish self-care, as well as participate in typical family and classroom practices.

The Functional Routines content category has 3 sub-categories:

- **Self-Care & Healthy Habits**
- **Classroom Routines**
- **Community Life**



Reading & Writing Readiness

Preparing children to read and write includes a combination of phonemic awareness, an understanding of basic print concepts, an ability to identify and to form the letters of the alphabet, as well as an understanding that letters represent sounds in language and what those sounds are. The ARIS Reading & Writing Readiness lessons cover the range of concepts that students must learn as preparation to read and write language.

The Reading & Writing Readiness content category has 7 sub-categories:

- **Print Awareness & Letter Knowledge**
- **Writing**
- **Narrative & Comprehension**
- **Sight Reading**
- **Phonological Awareness**
- **Decoding**
- **Rhyming**



Math Readiness

Before kids are ready to do formal mathematics, they must understand concepts like visual discrimination of shapes, recognition of patterns, number recognition, counting, and sets. Math skills provide a foundation for critical life skills such as measuring, comparison, time, and money. Language Builder: ARIS Math Readiness lessons cover these pre-mathematics concepts, as well as some basic addition and subtraction.

The Math Readiness content category includes 6 sub-categories:

- **Patterns**
- **Numbers & Counting**
- **Operations**
- **Geometry**
- **Measurement & Data**
- **Time & Money**

The Language Builder: ARIS Math Readiness Lessons are not designed to be a full mathematics curriculum. ARIS Math Readiness Lessons provide only foundational skills which are appropriate for early childhood and prepare students to enter a more formal math curriculum.

Guide to Lesson Folders

A great deal of thought went into planning the content and format of the Language Builder: ARIS Lesson Folders to make them as easy to use as possible. Some of the ARIS Lesson Folder features include:

- 1. Use of tabbed file folders rather than single-sheet lessons, allowing you to gather picture cards, data sheets, activity sheets, behavior tracking sheet, or any other materials you need to carry out your lesson.
- 2. Write-on/wipe-off card stock to facilitate on-the-fly note taking with a dry erase marker.
- 3. Clearly stated suggested materials, objectives, procedures, and guidance for each lesson.
- 4. Write-on/wipe-off data tracking sheet for quick capture of lesson performance.
- 5. The Lesson Folder content is visually organized to make it easy for instructors to quickly see what materials they need, what the main thrust of the lesson is, how to carry out the activity, and how to prompt or adapt based on student performance.

Front of Lesson Folder

Detailed list of all physical materials or content you will need to carry out the lesson.

Lesson category and title, with a brief overview of lesson content and goal.

Use dry erase pens to plan weekly student lessons. If multiple students are using the lesson, copy this page, and use a separate copy for each student.

Use dry erase pens to record notes specific to your student's needs on this lesson.

Box 1: Lesson 34
Expressive Language: Expressive Identification in Environment
Student will learn to expressively identify known labels found in the natural environment, including objects, shapes, colors, actions, emotions, locations, and people.

Suggested Materials
This activity requires materials, people, and scenarios that are common in the student's classroom environment. The labels you may practice for this lesson include any expressive labeling categories that the student has already mastered using picture cards. These categories may include:

- * Nouns
- * Verbs
- * Shapes
- * Colors
- * Occupations or Community Helpers
- * Familiar People
- * Emotions (recognizable among people in the school environment)
- * Prepositions
- * Opposites
- * Gender

You may also want to have handy various picture cards as prompts if the student has any trouble identifying specific labels. When you first begin this activity, you may need to start with objects from the LB7-10 Language Builder: 3D-2D Matching Kits before progressing to real items in the natural environment.

Student:
Projected activities for: __/__/__ to __/__/__

Monday	Tuesday	Wednesday	Thursday	Friday

Notes

Inside Left of Lesson Folder

To make this important summary easily available, this is a repeat of the Lesson Overview from the front section.

Where and with whom the student will be working.

Everything you need to gather or do before you begin the lesson.

Step-by-step directions to carry out the most basic lesson. Lesson progress directions are on the facing page.

Lesson number corresponds to Standards Correlation List and Structured Sequence Chart.

Lessons that should be mastered or in progress before beginning current lesson.

Quick reference to applicable standards correlations.

Data Sheets and Home Communication Sheets which are tailored to this lesson. It's a good idea to grab one of each along with the rest of your materials, so you can fill them out while the information is fresh.

Some lessons offer an extra Teacher Tip, others have a section called Why Do We Teach This? Some of these optional sections offer additional background. Others are just to make you smile.

Box 1: Lesson 34

Expressive Language: Expressive Identification in Environment

34 of 202

Lesson Focus

Student will learn to expressively identify known labels found in the natural environment, including objects, shapes, colors, actions, emotions, locations, and people.

Lesson Format

The primary lesson is designed for 1:1 instruction with a teacher or therapist.

Location

This lesson is intended to be carried out in the student's larger school environment. Depending on the word list you are working on expressively labeling, this can mean various spaces within the classroom, restroom, eating area, playground, etc.

Preparation

Select the area in which you plan on working and make sure the objects, people, actions, emotions, shapes, colors, etc. that you want to practice labeling are readily available and accessible to the student. Have handy various picture cards as prompts if the student has any trouble identifying specific labels.

Procedures

Go to the location in the classroom where the labels you want to practice can be found.

1. Make sure you have the student's attention.
2. Ask the student:
 - "What is that?"
 - "Do you know what color this is?"
 - "What shape do you see?"
 - "What are they doing?"
 - "How do you think he feels?"
3. Prompt if necessary.
4. Wait for the student to respond correctly to your question.
5. Reinforce the student.

Prerequisites

Expressive Identification in Environment is an intermediate activity. The prerequisite is:

- ★ Lesson 32: Expressive Labeling in Books

Standards

Head Start

- ★ IT-LC 7
- ★ IT-LC 11

Common Core

- ★ ELA.L.K.5.C

ABLLS-R

- ★ G20
- ★ G21
- ★ G22
- ★ G23

VB MAPP

- ★ T 4-M
- ★ T 5-M

Record Keeping

Data Sheet

- ★ Vocabulary-Based Lessons

Home Communication Sheet

- ★ Emerging & Maintaining Vocabulary



Why Do We Teach This

Generalization is the process of taking a skill learned with one medium or in one setting and applying it in other settings. Even though a student may have learned labels of certain objects using picture cards, it is important to make sure that they can carry that skill into their natural environment. When they can see a chair in a picture, a chair in a book, a chair in a classroom, a brown chair, a wood chair, a metal chair... and still know it is a chair, then you can be confident they have learned the word.

...because a chair by any other name...



Language Builder® ARIS™ Lesson 34 v1 © 2019 Stages Publishing, Inc.

Prompt suggestions to encourage a higher chance of a successful answer.

How to start the lesson and how to progress to more complex materials and skills until the student gains mastery of the lesson content.

Generalization helps the student transfer skills from the formal lesson setting to their natural environment at school and home.

Fun alternatives to teach this lesson in a more natural way, encourage generalization, and include peers.

Lesson Progression

This lesson covers multiple categories of expressive labels. The student may be ready to begin this activity expressively labeling some categories of nouns, but not shapes or colors. They may be better at identifying familiar people than they are at picking out actions. You can determine which words to begin with based on the student's mastery of various label categories. In general, it is easiest to start by identifying common objects in the environment. Follow the below progression for introducing objects labels in the environment:

- Introduce 1 object at a time.
- Place, for example, the 3D Apple on the table in front of the student and give the instruction: "What is this?" The student should have no problem with this task, as they have mastered it in previous lessons.
- Move the object progressively further away from the student and ask the question again, so the student will work toward identifying objects that are in a natural setting.
 - » Move the Apple 1 foot away from the student, but still on the table.
 - » Move the Apple to the far edge of the table.
 - » Place the Apple on a shelf several feet away from the student, first with no objects in close proximity to the Apple, and then with the Apple mixed into a more natural environment with other objects. The student has to figure out which object you are pointing to and which objects they should ignore.
- Once the student can successfully label 1 object in the natural environment, repeat the above process with a 2nd object.
- When your student can identify a 2nd object in the environment, you can begin to randomly rotate, asking the student to identify each object.
- Continue adding more objects to the student's repertoire, until they have 6-8 objects in the natural environment. Then begin to introduce corresponding real objects in the environment and increase the authenticity of the location (i.e., don't place the Apple in the environment, but ask the student to expressively identify an Apple when you are naturally in proximity to a bowl of Apples in the cafeteria).
- Once the student demonstrates proficiency with a selection of common objects in the environment, you can begin to introduce other label categories in a similar fashion to above. Begin in a more staged way, closer to the student, and evolve to a natural environment, with target labels appearing as they would in a student's daily life.

Generalization

Once the student demonstrates success expressively identifying labels in their school environment:

- Have the student practice expressive identification in their environment with another staff member.
- Have the student practice expressive labels in an increasingly larger scope of situations and environments.
- Communicate progress, commands used, and successful prompts to parents and home staff using the *Emerging & Maintaining Vocabulary Home Communication Sheet*, so parents know which labels the student is able to recognize in their environment. With this information, they can continue this activity at home and in other non-school environments.

Whole-Child Lesson Ideas

Favorite Room Tour

Place a brightly colored dot sticker on all the target objects in the environment (the number of target objects will depend on the student's comfort level). You can include a few reinforcing items, such as objects that the student favors. Explain to the student that they will take you on a tour of the room, as if you are on a field trip to a museum. As you and the student walk around the room, ask the student: "What is this?" Use the colored dot stickers as a guide and a reminder for which objects are next. You can ask the student to end the tour by finding all the objects and placing them in a basket. You can use known Language Builder Cards as a hint if the student has trouble identifying any objects.



Prompting

Suggested prompt ideas, in general from least to most intrusive:

1. Point to the object.
2. Use picture cards or 3D objects from LB7-10 Language Builder: 3D-2D Matching Kits as a hint.
3. Model an exaggerated version of the initial sound.
4. Model full vocalization of the object.
5. Use light physical prompting or touching to guide their mouth into position for the word.

Next Steps

When the student can expressively label objects in the environment, they are ready engage in more natural conversations throughout the day. Be sure to engage the student both formally and informally using their new vocabulary and language skills. There are a number of formal lesson directions you can go from here, including:

- ★ Lesson 35: Using Full Sentences
- ★ Lesson 40: Requesting Desired Objects
- ★ Lesson 42: Yes/No Answers
- ★ Lesson 112: Expressive Labeling by Feature
- ★ Lesson 113: Expressive Labeling by Function
- ★ Lesson 114: Expressive Labeling by Classification

Box 7: Lesson 34
Expressive Identification in Environment

ARIS lessons are not a linear progression. Sometimes there is a clear next step, and sometimes, there may be a number of directions to go depending on the student. This section gives guidance on content to introduce next.

Back of Lesson Folder

Data keeping sheet, custom designed to capture information critical to tracking student performance on each type of lesson.



Vocabulary-Based Lessons DATA SHEET

STAGES
learning materials

LESSON NUMBER

LESSON TITLE

STUDENT'S NAME

DATE

Prompt Codes				Trial Types		Notes
V	Verbal	P	Physical	MT	Mass Trial	
PV	Partial Verbal	PP	Partial Physical	DT	Distractor Trial	
M	Model	G	Glance	RR	Random Rotation	
PM	Partial Model	L	Location	REV	Review	

Words Practiced					MT	DT	RR	REV	Words Practiced					MT	DT	RR	REV	Distractors				

Circle + (correct), - (incorrect), NR (no response), or P (prompted) and fill in Prompt Code.

Date:	Staff Initials:			Notes:						
Time Started:										
Time Finished:										
	% Correct:									
Trial	1	2	3	4	5	6	7	8	9	10
Response	+ - NR P	+ - NR P	+ - NR P	+ - NR P	+ - NR P	+ - NR P	+ - NR P	+ - NR P	+ - NR P	+ - NR P
Prompt Code										

Date:	Staff Initials:			Notes:						
Time Started:										
Time Finished:										
	% Correct:									
Trial	1	2	3	4	5	6	7	8	9	10
Response	+ - NR P	+ - NR P	+ - NR P	+ - NR P	+ - NR P	+ - NR P	+ - NR P	+ - NR P	+ - NR P	+ - NR P
Prompt Code										

Date:	Staff Initials:			Notes:						
Time Started:										
Time Finished:										
	% Correct:									
Trial	1	2	3	4	5	6	7	8	9	10
Response	+ - NR P	+ - NR P	+ - NR P	+ - NR P	+ - NR P	+ - NR P	+ - NR P	+ - NR P	+ - NR P	+ - NR P
Prompt Code										

Language Builder® ARIS™ v1 © 2019 Stages Publishing, Inc.

www.stageslearning.com | PO Box 460, Vista, CA 92085 | tel 888-501-8880 | fax 888-735-7791

Take qualitative notes on student performance.

Record trial level quantitative data.

There are 6 data sheet versions. The version on the back of the lesson folder will vary based on lesson content.

Use write-on/wipe-off surface directly, then photocopy or transfer data, or copy data sheet first to record student performance.



8 Steps to Getting Started

1. Create a Student Record File

The way you choose to keep records is entirely a matter of preference. In most classrooms today, records will ultimately end up in digital form. But many educators have told us it's often easier

to initially keep paper notebooks or file folders for students. If you plan on using ARIS data sheets to keep and share notes on student performance, you will want to create a dedicated binder or folder for each student.

2. Conduct Pairing & Preference Assessment Lesson

The first lesson in the ARIS curriculum is *Pairing & Accepting Reinforcers*. This basic activity is critical to program success. The strong relationship built between student and instructor, as well as the knowledge of preferred reinforcers, will motivate the student to learn.

In order to determine which lessons you will introduce first, you need to know what the student likes and dislikes and establish a rapport with the student. So, on day 1, start with Lesson 1 and use the *Pairing & Reinforcers Data Sheet* to track and record preferences and share them with the rest of the teaching team. Place the data sheet in the front of the student record binder or file folder for easy reference.

Fill out the *Introduction, Preference List & Initial Behavior Profile Home Communication Sheet* and send it home with the student's parents. When they return the completed sheet, add the data to the student's binder.

3. Assess Skills, Vocabulary & Behavior Baselines

ARIS includes 4 main sheets for assessing and tracking student performance:

- **Skills Baseline & Progress Tracking Sheet**
- **Words, Phrases & Concepts Checklist**
- **Lesson Mastery Checklist**
- **Daily Behavior Tracking Sheet**

The *Skills Baseline & Progress Tracking Sheet* and the *Words, Phrases & Concepts Checklist* should be filled out at the beginning of the student's program to establish a baseline for measuring progress and to help you determine where to start for each student. The *The Skills Baseline & Progress Tracking Sheet* is filled out on an observational basis by the teacher and by parents. The *Words, Phrases & Concepts Checklist* is filled out using a combination of observation and testing. The *Daily Behavior Tracking Sheet* should be filled out by teachers and parents at the beginning of the program to prepare for the Positive Behavior Management Plan. For more details on filling out these sheets, visit the Assessment Tools Section and the Behavior Management Section of this guide.

4. Choose First Lessons

The first column of the *Skills Baseline & Progress Tracking Sheet* lists a lesson or series of lessons which address the specific skill being measured. If you determine that the student still needs practice in a skill area, you can start with the lesson number listed in that row.

Choosing the first lessons is not an exact science. Give the lesson a try with the student, and adjust accordingly. If the lesson seems too easy for the student, you can move forward. If it seems too challenging, you can step back to a previous lesson. ARIS offers you a few different tools to help you hone in on the right lessons:

- **Each lesson lists Prerequisites and Next Steps. If the lesson seems too easy for the student, you can move forward to the lesson(s) listed in the Next Steps. If they are struggling, you can go back to the lesson(s) listed in the prerequisites.**
- **The Structured Sequence Guide lays out all 202 lessons and places them at 6 difficulty levels. If the student is struggling with a lesson that is at a level 3, you can look at the structured sequence guide for lessons that are at a level 2 within the same category.**

In general, as soon as the student has mastered the introductory lessons designed to get them ready to learn, they should be working on 1-2 lessons from each of the 7 content categories.

Use the *Words, Phrases & Concepts Checklist* to help choose initial words for the language practice lessons. The highlighted words in the Nouns and Verbs sections are among the most basic words with which to start.

5. Gather Materials

Once you know approximately which lessons to start with, and which words the student needs to practice, you can dive in. Grab one of the chosen lessons, and refer to the Suggested Materials section to find out which materials you will need for the lesson. The lessons were created using a folder structure, so it is easy to slip in the right flashcards and data sheets to take to the table. If your student is the only one using that particular lesson, you may want to take a little time to plan out the schedule for the week, and the words you will be working on, so you don't have to take time each day to locate the materials again. You can use a dry erase pen to write your plan right on the front of the folder.

6. Conduct Lessons

Following the directions on the folder, begin the lesson with the student. The Procedures lay out the basic lesson, and the Lesson Progression section will give you guidance on how to help the student move from the early phases of lesson introduction, on to mastery, and ultimately generalization. Once the student has developed a basic comfort with the materials, you can mix things up a bit, using the Whole Child Lesson ideas.

7. Record & Communicate Data

Each folder specifies a Data Sheet and a Home Communication Sheet for you to use with that particular lesson. For your convenience, Language Builder: ARIS offers 2 ways to access the Data Sheets. The relevant Data Sheet is printed on the back of the folder. You can use a dry erase marker to quickly capture data here, and then either photocopy the sheet for the student's folder, or transfer the data to your own record keeping system later. Or, you can find all of the data sheets in the Blackline Masters section of this implementation guide. Some find it easier to make multiple copies of the sheets ahead of time and store them close to your ARIS system. Then, you can grab relevant sheets as you need them.

When you have finished the lesson, you can fill out the Home Communication Sheet with any information families can use at home to continue the learning. You can choose to send home new sheets at whatever interval is comfortable for you and for the family.

As the student learns new words and masters lessons, fill out the *Words, Phrases & Concepts Checklist* and the *Lesson Mastery Checklist* as appropriate. Store the sheets with the rest of the student's records. The *Skills Baseline & Progress Tracking Sheet* should be revisited at quarterly intervals to measure the student's gains.

8. Progress to Next Lessons

When the student is successful more than 80% of the time on a lesson, you can move on to the lesson or lessons listed in the Next Steps, and rotate the current lesson into a maintenance phase.



ARIS is not intended to teach ABA principles to educators. Learning ABA takes years of study, hundreds of hours of supervised practice, and special licensing. We do, however, offer this section with an overview of ABA and basic ABA terminology for 2 reasons:

- 1. When it best conveys a method of lesson progression, we do use some ABA terminology within ARIS lessons.**
- 2. You will hear these terms used by visiting professionals, in IEPs, and in conversations with families. It will help to have a basic familiarity.**

ARIS provides detailed lessons, as they are typically broken down in an ABA program, along with the necessary materials to carry out each lesson. It will be helpful to know some basics about ABA as a baseline, then you can carry the lessons out in your own personal teaching style.

For those wishing to learn more about ABA, please see Alberto & Troutman (2012) Applied Behavior Analysis for Teachers (9th edition). The sections below are adapted from this and other key works on ABA therapy.

ABA Overview

What is ABA?

Applied behavior analysis (ABA) is a research-based approach that is used in classrooms, therapeutic settings and homes around the world to help children with autism learn and develop new social and behavioral skills. Defined as “the use of the principles and methods of behavior analysis to bring about meaningful changes in socially important behaviors,” decades of research support the efficacy of the use of ABA in helping children with autism (Baer, Wolf, and Risley, 1968).

ABA can be used to help children develop daily living skills and also can help reduce negative behaviors such as aggression and self-injury. While most typically developing children learn social and developmental skills by interacting with adults and other children, children with autism are less likely to acquire these skills by observing other people due to challenges with developing empathy and “*Theory of Mind*.” ABA provides a way to actively teach children with autism basic skills, even in cases where they might not be able to understand conceptually why a certain skill might be required. ABA is highly structured and involves predictable and repetitive teaching that is well suited to children with autism who often have a strong need for routine and structure.

The Research Behind ABA

A landmark study conducted by pioneer researcher, Dr. O. Ivar Lovaas, determined that children who received ABA intervention, as compared to a control group, were much more likely to attain average cognitive abilities and were able to participate effectively in a regular classroom setting (Lovaas, 1987). A follow-up study in 1993, assessed the progress of this same group of students who had received ABA therapy and found that the IQ gains experienced by these students had been maintained over time (McEachin, et. al, 1993).

After decades of research, the efficacy of ABA therapy to improve intellectual and academic functioning of children with autism is well established (Sallows & Graupner, 2005; Cohen, et. al 2006). As a result of its proven effectiveness, the National Academy of Sciences, the American Academy of Pediatrics, and the New York State Department of Health, and autism advocacy groups, such as Parents for the Early Intervention of Autism in Children (PEACH), all support the use of ABA in treatment of children with autism (Blumberg & Hurley, 2007).

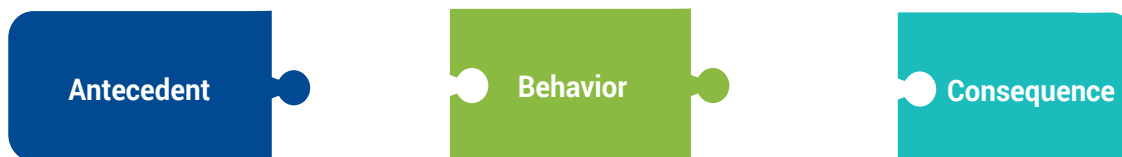
Discrete Trials Overview

Antecedent, Behavior, Consequence

ABA uses the concept of *discrete trials* to break down complex behaviors into smaller steps, then increases the occurrence of desired behaviors by prompting and rewarding each step involved in completing the behavior. Discrete trials in ABA approach every behavior as having 3 steps:

- **Antecedent: What happens before the behavior.**
- **Behavior: What the student does.**
- **Consequence: What happens after the behavior.**

This is called the ABC progression. Examples:



You ask your child to set the table.	Your child ignores you and turns up the television.	You tell him/her this is unacceptable and revoke TV privileges for the rest of the day.
The teacher says it is time to clean up the blocks.	The student throws a tantrum and hurls blocks across the room.	The student is put in timeout.
The teacher asks the student to "Find the apple" in an array of pictures.	The student does not respond.	The teacher says "No. Try again."
The teacher asks the student to "Clap your hands."	The student claps.	The teacher says "Great job!" and gives the student a goldfish cracker (which is a favorite food for the student).
The parent comes to school to pick up the student and extends their arms for a hug.	The student returns the parent's hug.	The parent gives a nice tight hug and tells the student how happy they are to see them.

Prompting

A prompt will increase the likelihood that a child does a desired behavior. In the ABC progression, the prompt happens between the Antecedent and the Behavior.



Examples:

You ask your child to set the table.	When you ask your child, you are standing close to them, you pick up the remote, turn off the TV and walk him or her to the dining room and help them set the table.	Your child goes through the steps of setting the table, with your help, until complete.	You praise your child for a job well-done as if they had done the work themselves, and give them a sticker on their chore chart.
The teacher says it is time to clean up the blocks.	The teacher immediately intervenes, removing blocks from the child's hands and physically guides (hand over hand, if needed) the child in putting away the blocks.	The student puts away the blocks with the teacher's help.	The teacher praises the child: "Great job putting away the blocks! Now we can go to recess!"
The teacher asks the student to "Find the apple" in an array of pictures.	The teacher points to the apple card.	The student points to the apple card.	The teacher says "Good job! You found the apple!"
The teacher asks the student to "Clap your hands."	The teacher models the behavior by clapping their own hands.	The student claps.	The teacher says "Great job!" and gives the student a goldfish cracker.
The parent comes to school to pick up the student and extends their arms for a hug.	The teacher physically walks the student to the parent, putting them in position to receive a hug.	The student returns the parent's hug.	The parent gives a nice tight hug and tells the student how happy they are to see them.



More About Prompting

Prompting in ABA is a tool used to help the student increase the number of correct responses and decrease incorrect responses. When prompting is implemented correctly, it increases the rate of correct responses, decreases student frustration, and helps the student learn more efficiently by decreasing errors.

The ABA prompt hierarchy can be described in the following steps, with full physical prompting being the most intrusive prompt, and natural or independent being the least intrusive.

Full Physical (FP): Hand over hand assistance to elicit a correct response.

Partial Physical(PP): Providing minimal physical guidance to elicit the correct response.

Model(M): Demonstrating the desired response without physically touching.

Gestural(G): Using gestures, such as pointing, to guide the learner to the correct response.

Visual(VIS): Using pictures, symbols, and/or text to assist a learner to respond correctly.

Positional(POS): Placing stimuli in a location or sequence that ensures a correct response.

Verbal (FV or PV): A direct statement of what to do or say.

Natural Cue/Independent: This is the goal!

It is important to distinguish between a verbal prompt and the instruction. Verbal prompts are verbal hints or clues provided in order to guide the student to perform a skill. An initial instruction is often necessary in order to let the student know what he/she is required to do. However, all added instructions after the initial instruction are considered verbal prompts (Alberto & Troutman, 2012).

Some prompts can be long lasting and can help increase student independence and decrease confusion. One of these is a visual schedule which allows the student more independence in navigating their day. Some students may always require the use of visual prompts.

Tips for Prompting

1. **Always prompt immediately following the instruction. Delays in prompting can lead to incorrect responses and can decrease the connection between the instruction and the correct response.**
2. **Use only one prompt at a time. For example, do not use a verbal and gestural prompt at the same time.**
3. **Highly reinforce all unprompted correct responses! This includes providing more/longer access to reinforcers.**
4. **Be careful of inadvertently prompting! Looking at the correct response, placing the correct response closer to the child (when not using positional prompting), voice inflection, keeping the order of concepts the same, or even making a facial expression can inadvertently prompt a response.**
5. **Follow the prompt hierarchy designated in the lesson, as well as the criteria for prompt fading. All prompts need to be faded to prevent prompt dependency, but fading prompts too quickly may increase errors.**

The goal with prompting is to use the least intrusive prompt possible that will lead to successful completion of the desired behavior. For example, taking a child's hand and physically guiding them to point at the apple is very intrusive. The instructor pointing to the apple to help the student know where to point is less intrusive. The instructor simply looking toward the apple card is the least intrusive. Prompts are phased out, or "faded" as the child becomes able to perform the behavior independently.

Prompt Fading

As mentioned on the previous page, it is critical to use the least intrusive prompt possible. Prompt fading is the systematic reduction of the amount and intrusiveness of the prompts necessary for the student to succeed at the skill.

Appropriate prompt fading is critical in encouraging independence and decreasing prompt dependency. Prompt dependency occurs when prompts are not reduced quickly enough. When the student is able to complete the skill at the current prompt level, the prompt should be faded to the next lower level.

Depending on the type of prompt you are using, three factors to consider when fading the prompt are force, time and space:

1. **Force:** How much physical prompting is being provided. For example, if you are using full physical prompting to help the student you should reduce the prompt to guiding the forearm, then the elbow, then a light touch, etc.
2. **Time:** How much time is given between the delivery of the instruction and the prompt. If you are using errorless learning you will initially deliver the prompt immediately following the instruction. As the student learns the skill, you can delay your prompt to allow the student time to respond without the prompt.
3. **Space:** How much space is between the student and teacher. For example, you may need to begin by sitting directly next to the student, then move behind their chair and gradually increase distance as the student becomes more successful (Earles, Carlson, & Bock, 1998).

There are several key points to remember when fading prompts:

1. **Reinforce prompted responses less than unprompted.**
2. **Do not allow the student to fail repeatedly.**
3. **Fade prompts gradually.**
4. **Make the prompts less intrusive (e.g. move from full physical to partial physical).**
5. **As prompts are faded, remember to reinforce more independent responses.**
6. **Provide more/longer access to reinforcers for unprompted correct responses.**

Reinforcement

Reinforcement is defined as any stimulus, event, or condition whose presentation immediately follows a response and changes the frequency of that response (Malott, 2004).

Reinforcement is the foundation of ABA, but can often be misunderstood.



ABA is built on B.F. Skinner's theory of operant conditioning which states that behavior can be learned by controlling the consequences or outcomes to actions or behavior. In ABA, teaching happens through the use of reinforcement to increase the likelihood of a desired behavior occurring in the future or decrease the likelihood of a negative behavior occurring in the future.

Reinforcement can take two forms:

1. **Positive reinforcement:** The addition of a stimulus following a behavior that increases the likelihood of that behavior occurring in the future. An example of positive reinforcement would be a student receiving praise, a candy, or another desirable object following a correct answer or positive behavior.
2. **Negative reinforcement:** The removal of a stimulus following the behavior that increases the likelihood of the behavior occurring in the future. An example of negative reinforcement would be allowing a student the opportunity to leave circle time (an unpreferred activity), after a few minutes of sitting, by using a break card.

Reinforcers can be either *primary reinforcers* or *secondary reinforcers*. Primary reinforcers are things that are innately reinforcing for the student. This can be edible items, toys, music, bubbles, etc. Secondary reinforcers are items that provide access to the primary reinforcers and must be paired to become a reinforcer. An example of a secondary reinforcer is a *token economy* where the student earns tokens to access another item such as a game. An example from our own day-to-day life is a paycheck which allows a person to access food and shelter and a fun vacation.

In ABA therapy, reinforcement needs to be provided immediately following the behavior in order to be successful, and the item needs to be specific to the student. What one student likes, another may not. Therefore, it is important to have regular *preference assessments*.

Preference Assessment

Preference assessment refers to the systemized process of determining which edibles, objects, toys, or other types of engagement the student enjoys and finds reinforcing. These preferences are individualized to each student and may change over time... even day-to-day. Assess preferences regularly to ensure you are offering meaningful rewards for the student.

With older students, it is often easier to determine attractive reinforcers. Frequently, you can just ask the student what they like or want to work for. You can do this at the start of the day or the start of each lesson. For younger children and children with unique needs, reinforcers are sometimes more difficult





to pinpoint. Reinforcers commonly used with older or more advanced students, such as tokens and social praise, may not be reinforcing for all students, and may actually be unpleasant or aversive to some.

Preference assessments are purposeful observations or formal, trial-based evaluations that allow staff to determine items or activities which are favored, and among those, which are more motivating than others.

Pairing

Pairing is a term used to refer to the process of developing or maintaining rapport with a student. During this phase, it is all about things the student enjoys and having those available to

them as freely as possible while they are engaging with staff. The student begins to associate the staff person with the fun things. Essentially, it should be all about the fun!

When pairing is done successfully, the student will associate the teacher with the fun activities and set the stage for a productive and trustful rapport.

Pairing is Universal

Pairing needs to be accomplished between the student and every teacher with whom he or she interacts. Teachers should not rush through this process, as it sets the stage for the student's ongoing success. Skipping the pairing process can cause problem behaviors to increase, harm instructional control, and impair the staff-student relationship.

Pairing is Ongoing

Pairing should not just happen in the beginning of a program. Initial pairing will take several days of staff bringing their strongest energy, enthusiasm, and praise. Staff should continue to assess their rapport with students. Ongoing pairing may not need to continue at the same intensive level of those first days, yet it is important to continue pairing on a smaller scale during each session or day. This may be as simple as a few minutes of play when the student arrives or at times throughout the day. Continuing to build rapport and maintain the positive staff-student relationship will be valuable when you reach more challenging lessons or need to overcome tougher behaviors.

Targets & Distractors

When teaching a skill to a student in discrete trial format, the specific item you are teaching is referred to as the *target*. This can be a word, an object, a picture, etc. The *distractors* are the other, non-targeted, items in front of the student. They are items that are not currently being taught, but are present to ensure the student is selecting the correct item by discriminating between the materials in front of them. Often the distractor may be a blank card or some other less visually appealing item.

Array & Field

The way materials are presented in ABA is often as important as the materials themselves. How we place materials on the table can impact a student's response. For example, if there are too many items, it can make discriminating and responding correctly more challenging for the student. For these reasons, it is important to look at the *array* and the *field* of the materials being presented.

Array: In the context of ABA and discrete trial training, when we talk about array, we simply mean the materials in front of the student and their arrangement or organization. Some types of array can include a line, a grid, or a messy array.

Field: The field refers to the number of items in the array. If we have 2 cards on the table during the trial, we say there is a field of 2.

As the number in the field increases, the student must be able to scan the materials and discriminate between them to correctly respond. As the number increases, so does the complexity. It is important not to increase the number in the field too rapidly, as it may inhibit progress if the student has not met mastery criteria at the current level.

Receptive, Expressive & Intraverbals

Verbal language is composed of three main components: *receptive language*, *expressive language*, and *intraverbals*.

Receptive language means the ability to understand information. It involves understanding the words, sentences, and meaning of what others say or what is read. This is often referred to as listener responder behavior.



Expressive language means being able to put thoughts into words and sentences in a way that makes sense and is grammatically accurate. This section of language is composed of *mands*, *tacts*, *echoics*, and *intraverbals*.

- **Mands** are the most important aspect of expressive language, as they refer to requests (think deMAND). Manding allows students to access things around them including items, attention, and information, appropriately. When a student learns to mand for their needs and wants, we often see a decrease in maladaptive behaviors.
- **Tacts** are taught following mands. Tacting refers to the student labeling things around them. This can be objects, pictures, sights, smells, etc.
- **Echoics** refers to the ability to vocally imitate upon request.
- **Intraverbals** are steps toward more advanced language and conversation skills. It is the ability to discuss, describe, or answer a question about something that is not physically present. An example would be asking a student what they did over the weekend.

Introducing New Materials

The introduction of new materials within a lesson should be systematic and conducted in a manner to prevent the student making initial errors.

The student should initially be given one verbal prompt and then be physically prompted to select the correct response if they do not do so on their own. In errorless learning, the student is not given an opportunity to respond incorrectly. Ideally, this approach should only be used when introducing new targets. Overall, the least amount of prompting that will insure the student answers correctly will be the long term approach.

New targets should be introduced in a *massed trial format* and then moved into *expanded trials*, and then *gradual random rotation*.

- **Massed trial:** A massed trial refers to teaching one specific target using repetition. The same instruction is given each trial and there is only one option for the student to select from. For example: Trial 1: Point to blue... Trial 2: Point to blue..... Trial 3: Point to blue. The massed trial format is typically used to introduce new targets. The use of repetition is typically used to initially teach a target in order to help ensure accuracy and reduce target confusion.



- **Expanded trials** occur after the targeted response is mastered in the massed trial format. This step involves the systematic increase of time between presentations of the target by gradually increasing the number of distractor trials between trials of the current target. The distractors are added to the program to help the student discriminate the correct response from the incorrect response. These can be previously mastered targets, but should not be too closely associated with the target. When the student is able to consistently get the target correct with one distractor used, you can add in a second distractor trial, or distractor card, increasing the amount of time between the target trials.
- **Gradual random rotation** of stimuli is the presentation of two or more mastered items where the items are presented randomly between all the targets. For example, if a student is working on an imitation program, and they have mastered “Hands up” and “Clap,” the teacher would present both of these in random order (e.g., hands up, clap, clap, hands up, etc.)

Random rotation can occur within one lesson or across multiple lessons with mastered targets. For example, if the student has mastered targets in colors, shapes, and imitation, the teacher can randomly rotate between mastered targets from all areas. This can help vary the lessons to encourage student attending and also allows for multiple targets and lessons to occur simultaneously. Random rotation ensures the student is not simply memorizing the order of the materials and is actually attending to the targets. It also increases the pace of the instruction. It’s a win-win.

Behavioral Momentum

Behavioral momentum is the use of a series of high-probability requests to increase compliance with lower-probability requests (Ray, Skinner & Watson, 1999). Similar to the concept of inertia in physics where objects

in motion tend to stay in motion, a student engaging in tasks will be more likely to engage in more challenging or less preferred tasks if they are already engaging in tasks or “on a roll.” This concept can be particularly helpful when working with students who are more difficult to engage or less compliant. It is also helpful in preventing the teacher or therapist from becoming an aversive stimulus. The student will learn to associate the teacher or therapist with positive things and not feel like they are coming over to end the preferred task they are engaged in.



Chaining

Chaining refers to a method of teaching a more complex or multi-step skill using behavior chains. Behavior chains are sequences of discrete steps or behaviors that when completed sequentially form the complete task. The first step is to complete a *task analysis* or TA. A task analysis is the breaking down of the larger skill into smaller individual skills that can be more easily taught. There are two main techniques used when chaining: forward chaining and backward chaining.

Forward Chaining: In *forward chaining*, the student is taught the behavior in its naturally occurring order. The student learns to complete the first step in a more complex task before moving on to the next step. Each step of the sequence is taught and reinforced when completed correctly. As additional steps are added to the chain, the reinforcement is contingent upon completion of all previous steps.

For example, if a student is learning to tie their shoes, the teacher would begin by teaching the student to cross the laces over the shoe. Once the student can complete this step independently and reliably, the teacher then teaches the student to loop one lace around the other. Reinforcement is given after each step the student completes and before moving on to the next step. This process continues until the entire chain of tying shoes is complete.

Backward Chaining: In backward chaining, the teacher completes or prompts the student through all steps, except for the last step in the chain. When the student completes the final step in the task analysis, they are given reinforcement. Then the student has to complete the final two steps in the chain in order to receive reinforcement. This process continues in the same way backwards through the steps, until all steps in the task analysis have been taught in reverse order and practiced as a sequence (Cooper, Heron, & Heward, 2007).

Some important things to consider in chaining:

1. **If the student is unable to complete the steps as you have them laid out in the task analysis, you may need to break the steps down even further to help the student be successful.**
2. **Students may be able to complete some of the steps in the chain at the beginning of teaching. This does not mean these steps should be omitted, but it will help the student move through the steps faster and learn the entire chain faster.**
3. **The student's abilities and the analysis of the task will help determine whether the task should be taught with the use of forward or backward chaining.**





Shaping

If a student cannot engage in a behavior, we say that it is not in the student's repertoire. *Shaping* is a method of adding new behaviors to a student's repertoire. Shaping is defined as the differential reinforcement of successive approximations to a desired behavior (Cooper, Heron, & Heward, 2007). Shaping is used when the target behavior does not yet exist, but the student is able to do something similar, such as the starting sound of a word, but not the entire word, or the student will sit at circle time, but not for the entire duration.

By having the student engage in successive approximations, the teacher is helping to bring the student closer to reaching the desired behavior.

Often times teachers are already using some form of shaping in their classrooms. A simple way to shape behavior is to provide feedback on learner performance, e.g., compliments, approval, encouragement, and affirmation. A variable-ratio produces the highest response rate for students learning a new task, whereby, initially, reinforcement (e.g., praise) occurs at frequent intervals, and, as the performance improves, reinforcement occurs less frequently, until eventually, only exceptional outcomes are reinforced.

For example, if a teacher wanted to encourage students to answer questions in class, they should praise them for every attempt (regardless of whether their answer is correct). Gradually the teacher will only praise the students when their answer is correct, and over time only exceptional answers will be praised (McLeod, 2018).

Generalization & Maintenance

Once a student has mastered or gained proficiency at a skill, it is important to help the student retain this skill. Students with unique learning needs often will lose an acquired skill if they do not practice it periodically and with other individuals than the one who provided the initial instruction. This is why *generalization* and *maintenance* are crucial to a student's progress and overall success.

Generalization refers to when a student takes a skill they have acquired and is able to apply it in many different settings and with different people. An example would be a student learning to greet others by saying hello and/or waving. This would initially be taught in a direct instruction setting with just the teacher and the student focusing on this specific skill. Once the student is able to reliably greet the teacher, they would then work on greeting other staff, peers, family members, etc. to use the skill of greeting others in a generalized or more natural environment.

Another example of generalization in reference to an academic skill would be a student learning the color red. Again, this would be taught initially in an intensive discrete trial format with only the teacher and student present. Once the student learned the color red, they would then learn to identify different objects that are red, different shades of red, and then expand this to the natural environment.

There are ways to encourage generalization during the initial teaching phase as well. Some common strategies include using different paraprofessionals or teachers throughout the day and across lessons and activities. Variation of tone of voice, choice of words, and reinforcers are also ways to encourage generalization of the skill.

Maintenance refers to the process of practicing a skill to help a student retain the skill initially taught to them. This abides by the principle of "use it or lose it." Once a student has mastered a skill and has generalized the skill across different settings, it is important to still have the student practice the skill periodically to ensure they hold on to it.

The frequency of maintenance varies depending on the student. Some students only need maintenance programs run once per month, while others may need maintenance programs run weekly in order to retain the skill.



6. ARIS Behavior Management Strategies Overview



"One of the most important technologies of behaviour modifiers and applied behaviour analysts over the last 40 years has been the token economy"

- Matson and Boisjoli (2009, p. 240)



Managing challenging behavior is a critical element in setting students up for learning success and making the classroom a safe and positive environment for everyone. ARIS includes behavior tracking, planning, and management sheets to facilitate individualized behavior management plans for each student.

In this section, we describe a positive approach to behavior management, tips on how to develop a data driven behavior management system that works, and methods to decrease negative behaviors and increase positive behaviors.

What is Positive Behavior Management?

Positive behavior management is a behavior modification technique that is used to increase or decrease a particular behavior or reaction through the use of positive reinforcement.

In a strong behavior management system, you continuously collect data on behaviors, select behaviors you would like to target for improvement, and follow a plan to address those behaviors.

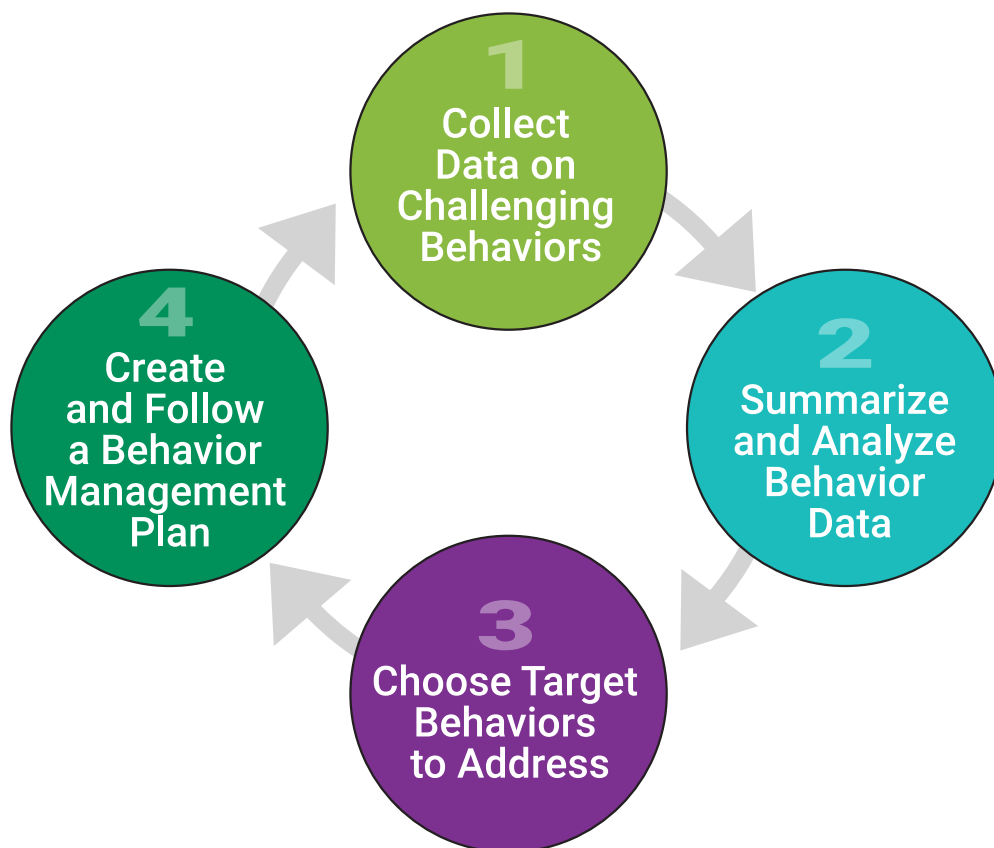
When a student engages in a particular behavior and receives immediate positive reinforcement, the likelihood of that behavior occurring again increases. Positive behavior management is grounded in the concept of operant conditioning, a type of learning where behavior is controlled by consequences.

Why Use a Positive Approach to Behavior Management?

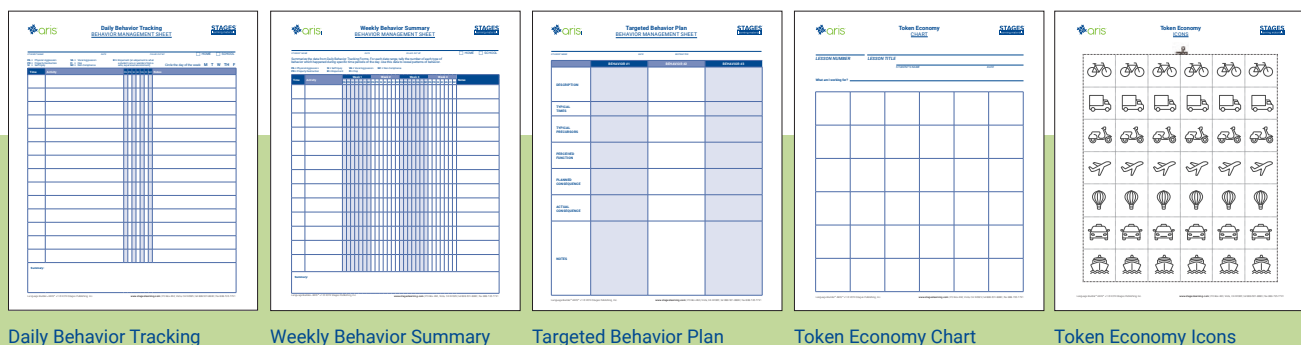
ARIS considers positive behavior management to be a preferred alternative to punishing undesirable behaviors. Relying on punishment to suppress behavior challenges does not address what a student might do in place of the undesirable behavior, leaving a missed opportunity for learning to occur. Punishment may also elicit an emotional response that generates anxiety, hostility, or resentment, further inhibiting new learning. The objective of positive reinforcement is to teach appropriate behaviors rather than simply punishing undesirable behavior without providing an alternative.

Getting Started with ARIS Behavior Management

The ARIS Positive Behavior Management Plan includes 4 steps that identify, address, and measure challenging behaviors. The plan sets up a cycle to improve student behavior, beginning with the highest priority behaviors, and creates a system that will help the student achieve self regulation of the impulses which make it more difficult to learn and interact with others.



ARIS Behavior Management System Tools



1. Collect Data on Challenging Behaviors

When you introduce the ARIS program to a student, you measure skills the student needs to acquire, as well as challenging behaviors that can limit success in social and academic activities. Data collection is essential as you do the following:

- **Select the most important behaviors to first address in the Positive Behavior Management Plan.**
- **Measure the effectiveness of the Positive Behavior Management Plan over time.**
- **Adjust the Positive Behavior Management Plan for maximum success.**

Using the *Daily Behavior Tracking Sheet*, you will collect data on:

- **Locations or settings in which the challenging behavior is most likely to occur.**
- **Activities during which the behavior occurs most often.**
- **Events which often precede the behaviors.**

ARIS *Daily Behavior Tracking Sheet* is provided to facilitate tracking of challenging behaviors and to help you determine under what circumstances those behaviors tend to surface. This data will help determine *antecedents* that trigger the behavior, as well as events that follow the behavior which may be reinforcing to the student. As you analyze the typical context in which a behavior tends to occur, keep in mind the social and physical expectations of the particular environment. Behaviors appropriate in one environment may not be so in another.

Write the student's name, the date the sheet was started, and the person filling in the sheet. Note whether the sheet is filled out at home or at school, and the day of the week. Day of the week may be more important than date. For example, maybe the behavior only occurs on Mondays.

Record the time or time range when the behavior occurred. —

Note the activity in which the student was engaged, or the activity which was going on around the student, when the behavior occurred.

[illegible]

Locations, activities, and events which trigger a behavior are also referred to as *antecedents* in an ABA setting, and you may hear people in ABA refer to an *antecedent strategy* for reduction of problem behaviors.

- Check whether the behavior was Physical Aggression, Property Destruction, Self Injury, Vocal Aggression, Non-Compliance.

- Describe the behavior or provide any notes which are important to understanding why the behavior occurs and how to reduce its occurrence.

Summarize and provide any outside circumstances which may have effected behavior throughout the day. For example, a recent relocation, illness or change in family circumstances.

2. Summarize & Analyze Behavior Data

Once you have gathered one full week of data on challenging behaviors and antecedents using the *Daily Behavior Tracking Sheet*, use the *Weekly Behavior Summary* to assemble the data and look for patterns. This analysis will be used to determine target behaviors, or behaviors that the student will work toward either increasing or decreasing. Behaviors are problematic for the following reasons:

- They occur too frequently.
- They do not occur frequently enough.
- They are inappropriate for the context.
- They may be harmful to the student, property or others.

Summarizing the student's behavioral data into one weekly sheet will make it easier to spot quantitative patterns (how often is a particular behavior occurring and at what times) and to consider more qualitative elements regarding the function the behavior serves for the student. Determining the hypothesized function of the behavior will help you come up with more effective interventions.

Write the student's name, the date the sheet was started, and the person filling in the sheet. Note whether the sheet is filled out at home or at school.

[illegible]

For each week, write a numerical value for the number of times each behavior time occurred during each time frame.

Write any notes that summarize observations about behavior patterns which occurred during each time frame.

Include any notes which summarize observations about behavior patterns that occurred during the full 4 week period. For example, if the student recently had a new sibling enter the home, that may disrupt behavior and should be noted as a possible behavior variable.

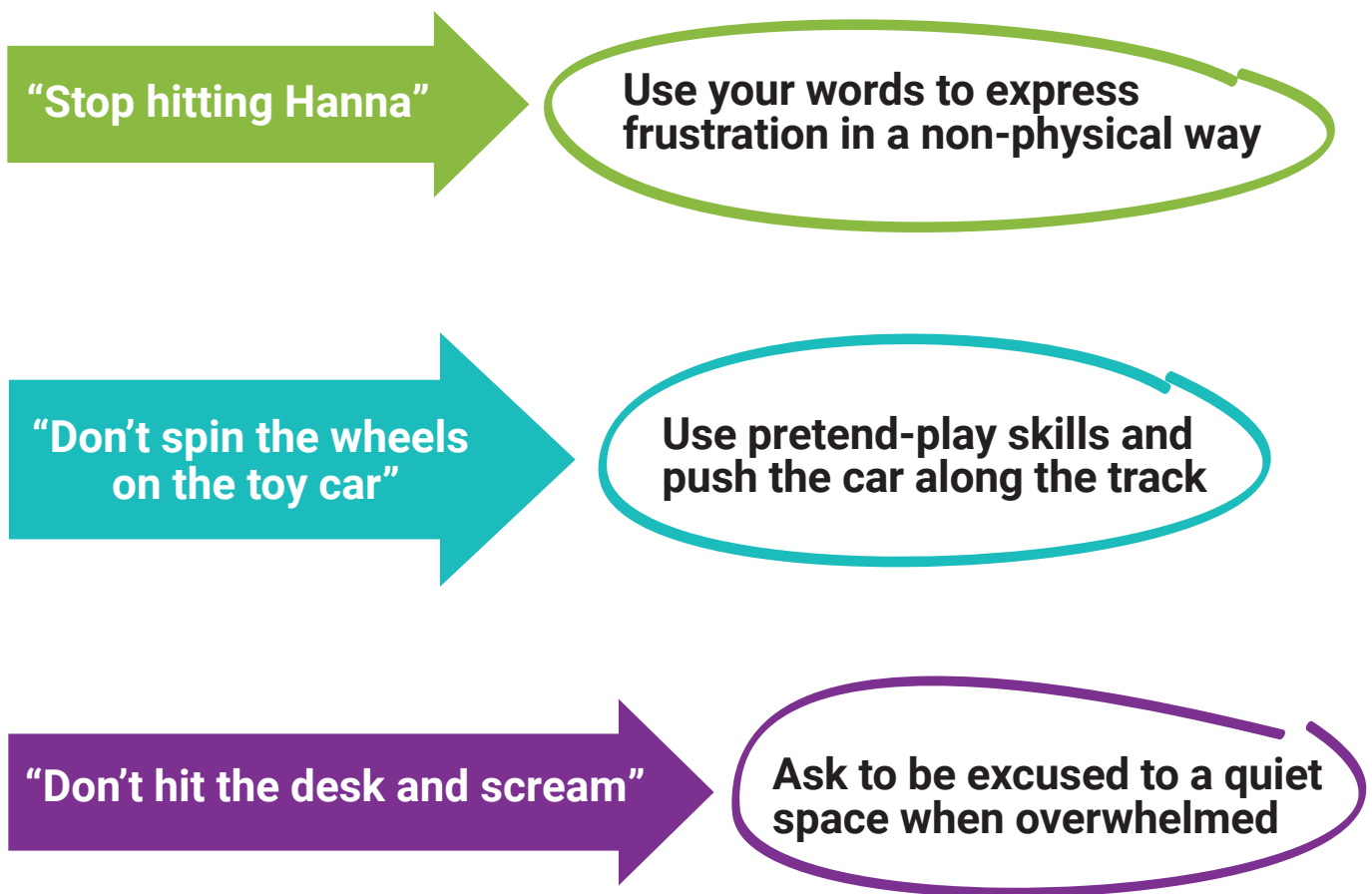
Break the day into time periods and activities which fit your typical school schedule. For example, if you typically have arrival from 8:00 am - 8:15 am, you would indicate that time and activity in the first row.

3. Choose Target Behaviors to Address

A *target behavior* in the context of a Behavior Management Plan is a behavior that is targeted for change. In a Positive Behavior Management Plan, you try to frame the target behavior to focus on what you would like the student to do, as opposed to what you do not want the student to do. For example:

- “Stop hitting Hanna” becomes “Use your words to express frustration in a non-physical way.”
- “Don’t spin the wheels on the toy car” becomes “Use pretend-play skills and push the car along the track.”
- “Don’t hit the desk and scream” becomes “Ask to be excused to a quiet space when overwhelmed.”

It is a good rule of thumb to pick 2 or 3 behaviors to address at a time, rather than trying to tackle everything at once. Prioritize behaviors that directly interfere with learning and/or are dangerous to the student or others around them.



4. Create & Follow a Positive Behavior Management Plan

The Language Builder: ARIS *Targeted Behavior Plan Sheet* is designed to help create, communicate, and record progress on the Positive Behavior Management Plan for a student. Use this tool to do the following:

- Describe up to 3 target behaviors on which to focus at a time.
- Suggest possible reasons the student may engage in each behavior.
- Agree upon a behavior goal and a plan for how all staff members, and, ideally, family members, should address each target behavior when it occurs.

A Positive Behavior Management Plan will work best when everyone who interacts with the student is consistent with their response to challenging behaviors. Once the Positive Behavior Management Plan is in place, cycle back to the *Daily Behavior Tracking Sheet* and *Weekly Behavior Summary* to do the following:

1. Measure progress on reducing target behaviors which are part of the plan.
2. Identify the next behaviors to target.

When 1 behavior meets your criteria for improvement, create a new plan that adds another goal to the list of 2-3 behaviors, and begin the cycle again.

Write the student's name, the date the sheet was started, and the person filling in the sheet.

Describe the planned consequence to each behavior which you and the staff and family have agreed upon. For guidance, refer to the next section which lists suggested methods to decrease negative behaviors and increase positive behaviors.

STUDENT NAME		DATE		INSTRUCTOR	
	BEHAVIOR #1	BEHAVIOR #2	BEHAVIOR #3		
DESCRIPTION					
TYPICAL TIMES					
TYPICAL PRECURSORS					
PERCEIVED FUNCTION					
PLANNED CONSEQUENCE					
ACTUAL CONSEQUENCE					
NOTES					

Language Builder® ARIS™ v1 © 2019 Stages Publishing, Inc. www.stageslearning.com | PO Box 460, Vista, CA 92085 | tel 888-501-8880 | fax 888-735-7791

Choose 3 behaviors which are a priority to address for correction. Describe each behavior, and list typical times and precursors for the behaviors.

Include any notes on why you, or other staff and family, believe the student engages in each behavior. For example, the student may engage in self-injury to avoid a task they dislike.

If consequences sometimes deviated from the plan, explain how and why.

Provide any additional information that may be necessary to understand the behavior and how the Behavior Management Plan is progressing.

Methods to Increase Positive Behaviors

Remove Trouble-Causing Stimuli

Perhaps the easiest way to stop a negative behavior is to remove the situation that caused the behavior in the first place. As described earlier, antecedent strategies seek to change the locations, activities and events which trigger a behavior. So, if playing in the sandbox at recess always results in a fight over the toys, you can structure the environment differently to support student success. For example:

1. **Avoid or remove toys that cause a struggle or a challenging behavior.**
2. **Have the student access the sandbox on their own, without other students.**
3. **Encourage other activities over the sandbox.**
4. **Encourage alternative activities until the child can participate in recess with peers.**

While *stimulus* removal may be successful on its own, it will be even more effective when you teach the student alternative behaviors, such as taking turns, playing with a different toy, or sharing. We will talk more on the following pages about teaching alternative behavior as a behavior management strategy.

For reference, here is a partial list of possible antecedent strategies for changing behavior:

- **Change the student's schedule or routine.**
- **Remove objectionable items from view.**
- **Rearrange the classroom or the lesson environment.**
- **Offer choices among activities.**
- **Change the words or tone of the instruction.**
- **Engage the student with highly preferred activities.**
- **Have the student work with a different staff member.**





Extinction

Extinction in an ABA environment refers to the process of removing reinforcement that is provided for a behavior, with the goal of reducing or eliminating the behavior. People engage in a variety of behaviors because they get something positive as a result. To reduce the frequency of non-preferred behaviors, determine what about the behavior is reinforcing to the student then discontinue the reinforcement from future occurrences of the behavior. While it may seem counterintuitive that one feels positively reinforced by a negative behavior, consider the following example:

- 1. A student wants your attention.**
- 2. You are busy with a small group project in another part of the class.**
- 3. The student falls to the floor in a tantrum.**
- 4. You stop what you are doing to attend to the student's disruptive, and potentially dangerous behavior.**
- 5. The student has successfully gained their desired result... your attention.**

In a setting where the student is not a distraction to others and is in no danger of injuring themselves or others, if you give them no attention for their negative behavior, they will eventually stop and find another way to gain your attention. However, there is a major caveat. Consider this scenario:

- 1. A student wants your attention.**
- 2. You are busy with a small group project in another part of the class.**
- 3. The student falls to the floor in a tantrum.**
- 4. You ignore the student's behavior.**
- 5. The student now escalates their tantrum to include throwing objects and hitting other students.**
- 6. You can no longer ignore the dangerous behavior, so you intervene.**
- 7. Not only has the student gained your attention, you have now taught them that to get that desired attention, they need to engage in dangerous behavior.**

When extinction is first initiated, the student will often increase a negative behavior in an effort to regain the reward. This is referred to as an *extinction burst*. If reinforcement is given during an extinction burst, the student learns to increase a behavior to receive reinforcement.

The process of extinction can be further solidified if a non-compatible alternative behavior is simultaneously reinforced. In other words, if there is a behavior that cannot exist at the same time as the target behavior, reinforcing this more appropriate behavior will help discourage the target behavior. This is described in more detail in the next section on *differential reinforcement*.

Differential Reinforcement

Differential reinforcement is a strategy of reinforcing a desired behavior and providing no reinforcement for undesirable behavior. Differential reinforcement is applied with a few variations, each of which may work a bit better for varying situations. Three types of differential reinforcement include:

- **Differential reinforcement of alternative behaviors**, often abbreviated **DRA**, seeks to increase a more appropriate behavior while decreasing the inappropriate behavior. DRA interventions can teach a replacement behavior for the challenging or inappropriate behavior you are trying to eliminate. An example would be teaching the student to ask to use an item, rather than simply grabbing it from a classmate.
- **Differential reinforcement of incompatible behavior**, or **DRI**, is similar to DRA except that it specifies that the alternate behavior must be incompatible with the undesirable behavior. For example, if you want to reduce the behavior of running around the class, you might reinforce sitting behavior. Sitting is incompatible with running. Whereas, in the above example, the student could ask to use an item while simultaneously grabbing it from their classmate.
- **Differential Reinforcement of Other Behaviors (DRO)** provides reinforcement whenever the targeted undesirable behavior does not occur. The difference between DRO and DRA or DRI is that in DRO, it is the student who determines what other behavior they will engage in, rather than being directed toward an alternate or incompatible behavior by the teacher.

Differential reinforcement and extinction can be successfully used in conjunction, i.e. you ignore one behavior while simultaneously reinforcing a different behavior. Ignoring a student's hand-flapping while praising their sitting in circle time would be an example of extinction used with differential reinforcement of alternative behavior.

Social Stories

Social stories can be used to set the student up with a positive, alternate, incompatible, or other behavior that can be reinforced. ARIS **Lesson 68: Social Stories** provides a detailed description of how to teach social stories. And, an extensive list of social stories can be found on the ARIS website.

I am going to school.



I will take my backpack.



I will do fun things at school.





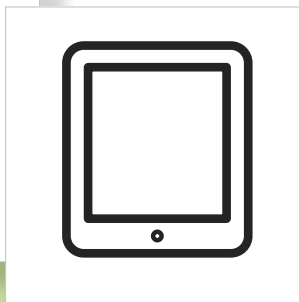
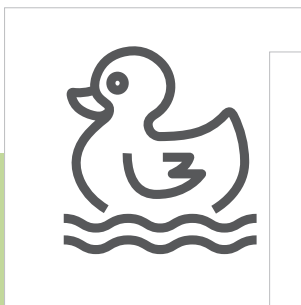
Token Economy for Behavior Management

A *Token Economy* is a behavior management tool designed to increase desirable behavior and decrease undesirable behavior with the use of tokens. The student receives a token immediately following a desirable behavior and can later exchange a set number of tokens for a primary reinforcer.

A primary reinforcer is an object or privilege that is meaningful to the particular student, such as a toy, an edible treat, or a chance to use the iPad.

The tokens themselves are secondary reinforcers. Tokens only gain value to the student to the extent that they become paired with the earning of the meaningful primary reinforcers.

Treats, toys, and enjoyable activities are the most obvious examples of primary reinforcers. Secondary reinforcers can be anything that provides access to a primary reinforcer. Examples include stickers on a chart, money, or tokens. By pairing tokens with a primary reinforcer, the tokens become reinforcing and delay the need to access the primary reinforcer.



ARIS Token Economy Tools

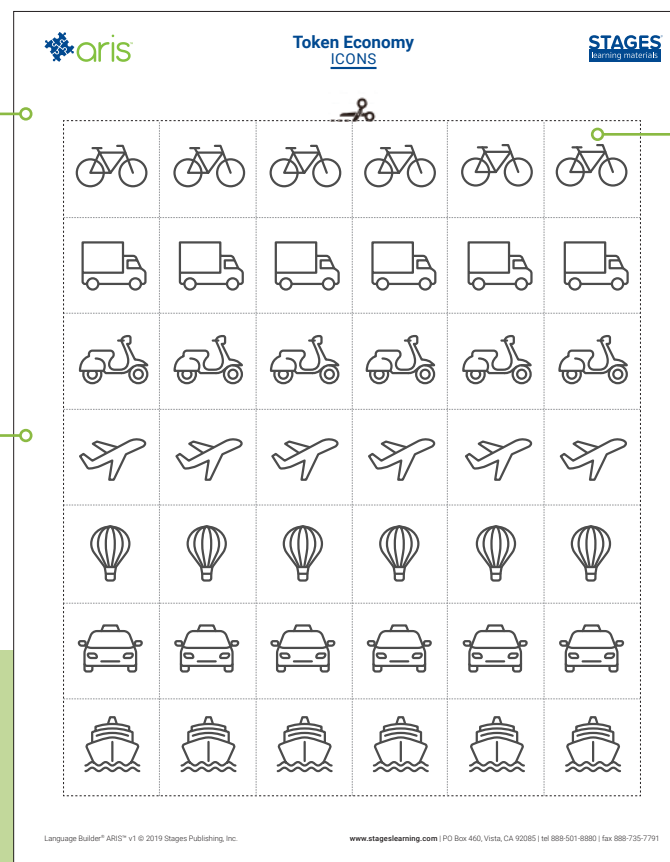
ARIS includes a *Token Economy Chart* and *Token Economy Icons* for you to use with students in the ARIS Program. **Lesson 87: Token Board** goes into detail about how to implement the token economy with students. The basic overview is as follows:

1. **Make copies of the *Token Economy Chart* from the Blackline Masters section of this implementation guide, and personalize the chart to include the student's name and the reinforcer that he or she is working towards earning.**
2. **Copy the *Token Economy Icons*, also found in the Blackline Masters section, and let the student choose which tokens they would like to use.**
3. **Make it clear to the student what they are working for and how many tokens it will take to achieve the goal.**
4. **Give the student tokens for achieving milestones, such as finishing a lesson.**
5. **Let the student trade in a completed token board for the chosen primary reinforcer.**

The *Token Economy Chart* is a great way to provide reinforcement for a student, while reducing the need for an immediate tangible reinforcer after every response. The student earns tokens for successfully completing a lesson or achieving a period of good behavior, then they can trade in a full *Token Economy Chart* to gain access to a larger reinforcer.

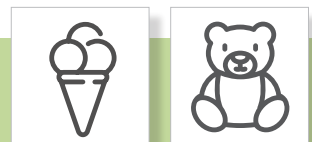
Photocopy the *Token Economy Icons*, and cut out to use on the student's *Token Economy Chart*. If the student is able to properly use scissors, you can let them cut out the icons themselves.

There are many styles of icons to choose among. Let your student pick their favorites to make it even more motivating to earn tokens.



If the student is able to color, it may be motivating to let them color and personalize their icons.

Consider laminating the individual icons for multiple uses. If you also laminate the *Token Economy Chart*, you could use Velcro stickers to affix tokens to the chart.





Pairing & Reinforcers DATA SHEET



STUDENT'S NAME		DATE		INSTRUCTOR	
Record Known Preferences					
Preferred Foods	Preferred Drinks	Preferred Toys	Preferred Physical	Preferred Verbal	
Negative Foods	Negative Drinks	Negative Toys	Negative Physical	Negative Verbal	

Record qualitative data on the rapport between student and instructor, on how well the student associates the instructor with positive reinforcement, and on the student's reactions to specific edible, physical and verbal reinforcement. In the Food/Drinks and the Toys section, write in the items presented in the order they were from the student's perspective, left to right. Then record the order chosen in the boxes. This will help you determine which reinforcers the student prefers and will make it easier to notice if the student is just selecting a certain position rather than attending to the reinforcer. For example, always choosing the item on the right, regardless of preference.

Example: #1 gold fish crackers [3] raisins [1] gummy bears [5] popcorn [2] M&M's [4]

Pairing Notes	Set #	Foods/Drinks Presented – Record Order Chosen in Boxes
		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Choosing & Pairing Primary Reinforcers

The ARIS Token Economy system will be most successful when you establish a strong reinforcer to motivate the student. ARIS **Lesson 1: Pairing & Accepting Reinforcers** utilizes the *Pairing & Reinforcers Data Sheet* to systematically test and record the student's preferred food, drink, toys and activities, and to establish a hierarchy among them.

The effectiveness of a potential reinforcer can be measured by the degree to which the target behavior increases.

- **If the Token Economy successfully increases the desired behavior, the chosen reinforcer is strong.**
- **If the target behavior does not increase, the treat, toy or event you used is not the right reinforcer for the student's Token Economy.**

No matter how much the student appears to enjoy a particular reinforcer outside of the Token Economy, if the reinforcer does not successfully motivate the student in the delayed-reinforcement environment, it is not the right primary reinforcer to use in this circumstance.

When you identify a strong primary reinforcer, systematically pair it to the secondary reinforcement of the tokens. Initially, present the student with opportunities to earn the primary reinforcer often. This may mean letting the student exchange a single token for the reinforcer, everytime they exhibit the desired behavior. Consider the following progression:

- **The student is motivated by the opportunity to bang on a toy drum.**
- **You are working on Lesson 94: Following Single Directions Away from Seat.**
 - » You ask the student to "Put the paper in the trash."
 - » The student walks to the trash can, deposits the paper, and returns.
 - » You give the student a token and let them immediately exchange it for the chance to bang the drum.
 - » You follow this single-token exchange for the rest of the activity.
- **The next day, in this lesson:**
 - » You ask the student to "Go knock on the door."
 - » You reinforce them with a token when they complete the activity, and return.
 - » You don't let them immediately exchange the token.
 - » You place the token icon on a 2-space *Token Economy Chart*.
 - » You ask them now to "Go turn off the light."
 - » When the student turns off the light and returns, you give them a second token to place on the *Token Economy Chart*.
 - » You let the student exchange the completed 2-space chart for the chance to bang the drum.
 - » You follow this 2-token exchange for the rest of the activity.

- **Each day, or each couple of days, increase the number of tokens the student must earn to gain their desired primary reinforcer.**
- **Increase the requirements to earn a token.**
 - » Initially, you are giving a token for every successfully completed command.
 - » Work toward giving the student praise for one successful answer and a token on the 2nd successful answer, then on the 3rd, 4th, etc.
 - » Ultimately, the student should receive praise for each success during a lesson and a token at the end of the lesson.
 - » Work toward using tokens to reward other types of classroom behavior, such as 1 hour without a targeted problem behavior.

Modify the complexity of the Token Economy to suit the needs of the student, initially and over the course of time. The student may begin the Token Economy with a simple chart and progress over time to a more complex system using play coins. Be flexible and adjust the system to fit the student's ability and to keep things fun and interesting.

Additional Token Economy Tips

1. **Choosing representative tokens may help the student remember what they are working for. In this example, you may choose to use the toy drum icon.**
2. **You may also choose, instead of the paper tokens and chart, to use a durable physical token, such as poker chips or pennies, along with a fun place for the student to store their tokens. Examples include a pencil case, a jar, a plastic bag, or even a zippered wallet.**
3. **Make sure it is clear to the student how many tokens will be required to exchange for the primary reinforcer. If you are using a paper chart, have only the required number of open squares showing. You can cut the *ARIS Token Economy Chart* to show only the required number of squares.**
4. **Keep the *Token Economy Chart* or the chosen storage container visible to the student throughout the day so they can see their progress and how close they are to earning the primary reinforcer.**
5. **Keep the required number of tokens realistic. Start small and increase according to the student's abilities.**
6. **Use the Token Economy in a positive manner. This means giving tokens to the student for the behaviors you want them to engage in, rather than taking them away for undesirable behavior. For example, reward 10 minutes of good behavior, rather than taking a token away for a tantrum.**
7. **When the student has a strong understanding of the Token Economy, choose a specific time of the day for redeeming reinforcers, such as right after lunch or at the end of the school day.**
8. **Consider a special place in class for the Token Economy exchange, and set it up as a "classroom store."**

Taking tokens away can lead to a breakdown in rapport between the student and teacher and harm the student's overall learning. The removal of tokens is referred to as *response cost*. Response cost should be used only as a last resort, for major undesirable behaviors that must be suppressed quickly for safety reasons. Always combine response cost with other procedures that develop appropriate replacement behaviors.



Targeted Behavior Plan BEHAVIOR MANAGEMENT SHEET

STUDENT NAME

DATE

INSTRUCTOR

	BEHAVIOR #1	BEHAVIOR #2	BEHAVIOR #3
DESCRIPTION			
TYPICAL TIMES			
TYPICAL PRECURSORS			
PERCEIVED FUNCTION			
PLANNED CONSEQUENCE			
ACTUAL CONSEQUENCE			
NOTES			



Token Economy CHART



LESSON NUMBER

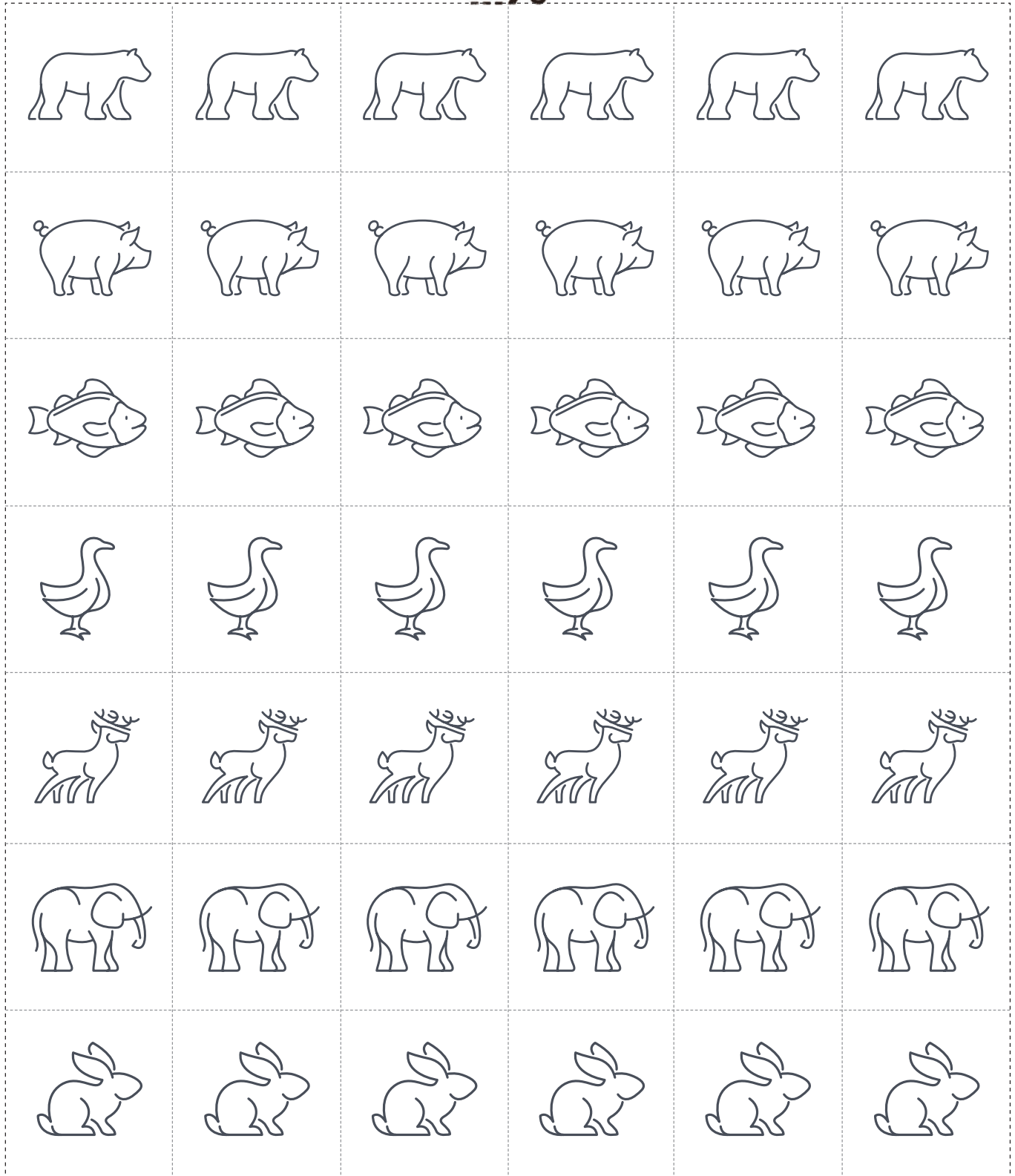
LESSON TITLE

STUDENT'S NAME

DATE

What am I working for? _____





— — — — — — — — — — — — — — —

— — — — — — — — — — — — — — —

— — — — — — — — — — — — — — —

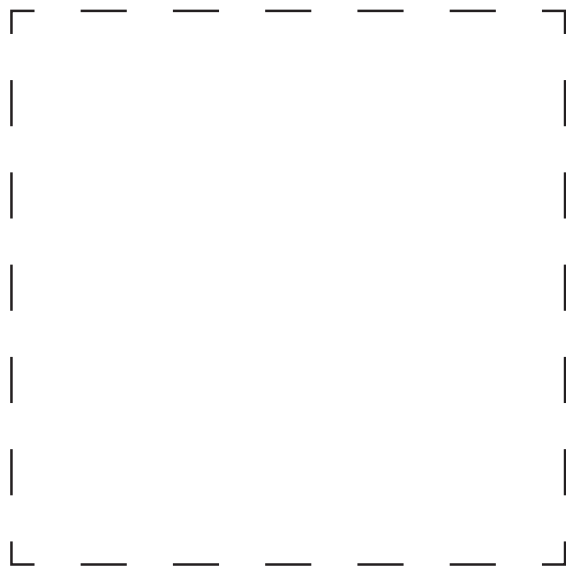
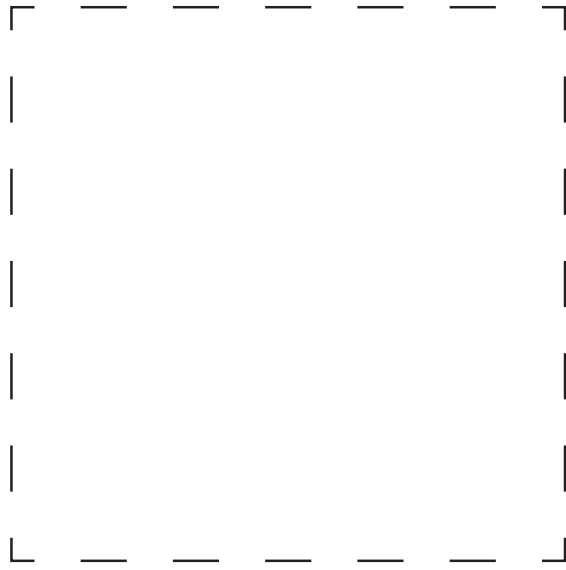
— — — — — — — — — — — — — — —

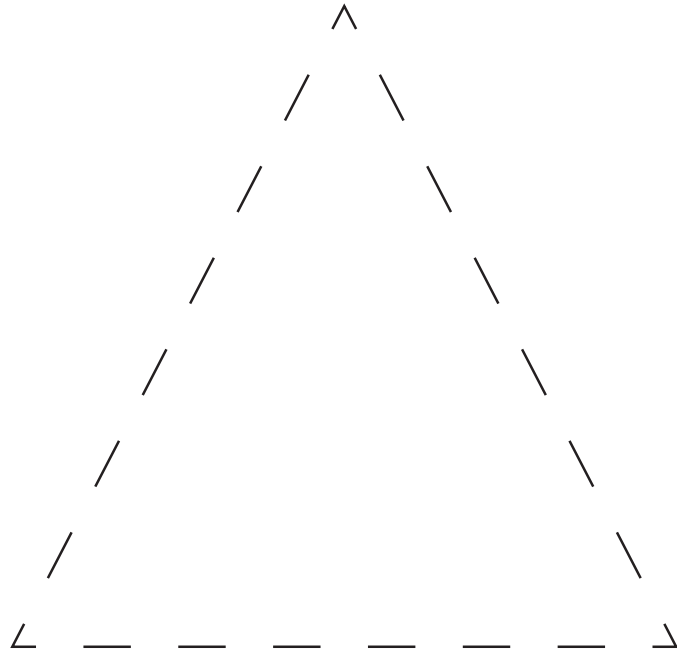
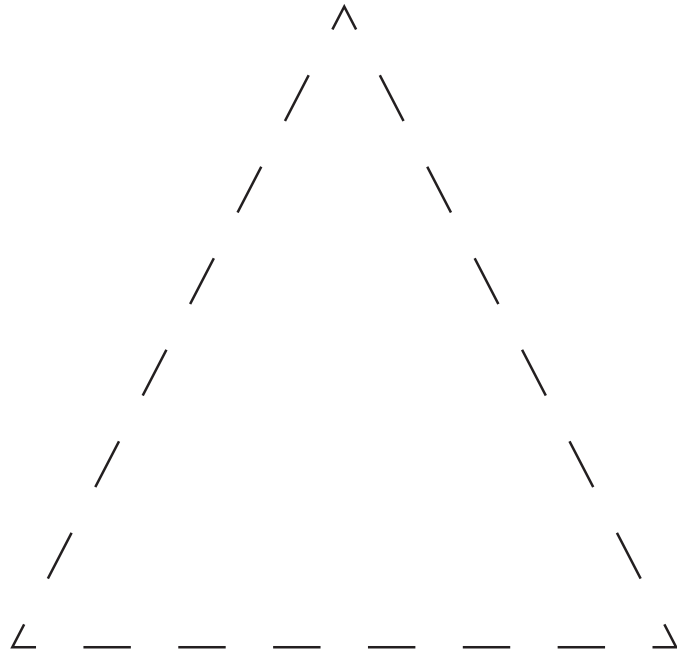
— — — — — — — — — — — — — — —

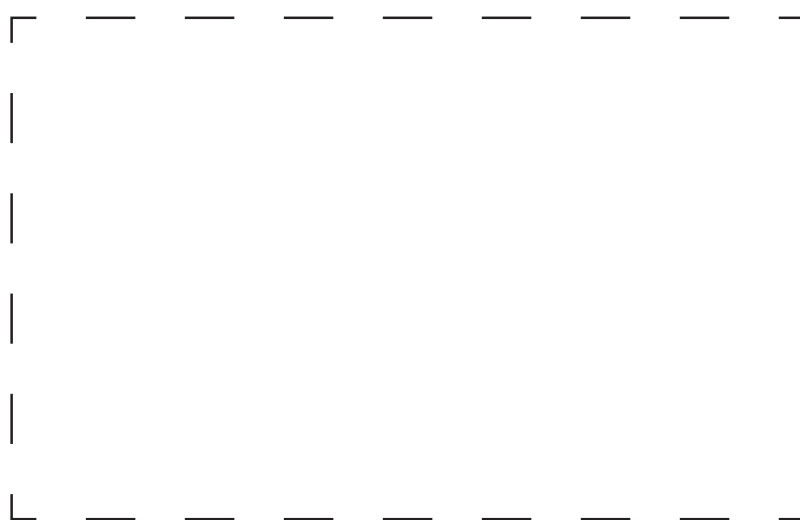
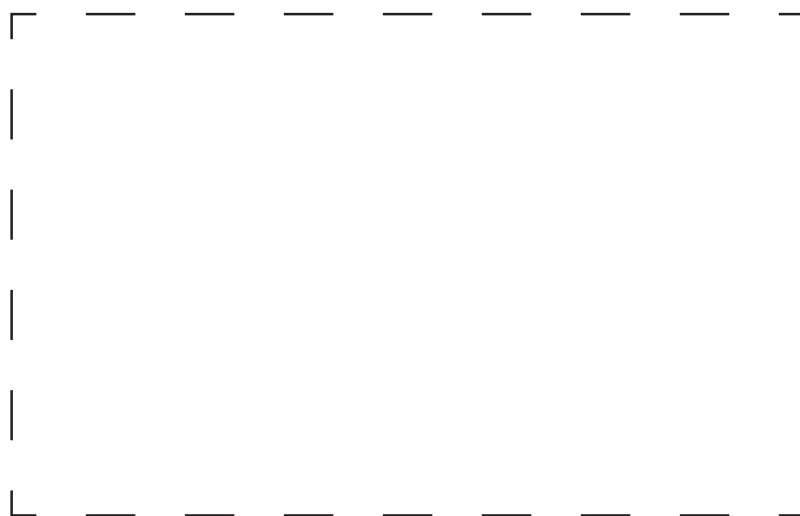
— — — — — — — — — — — — — — —

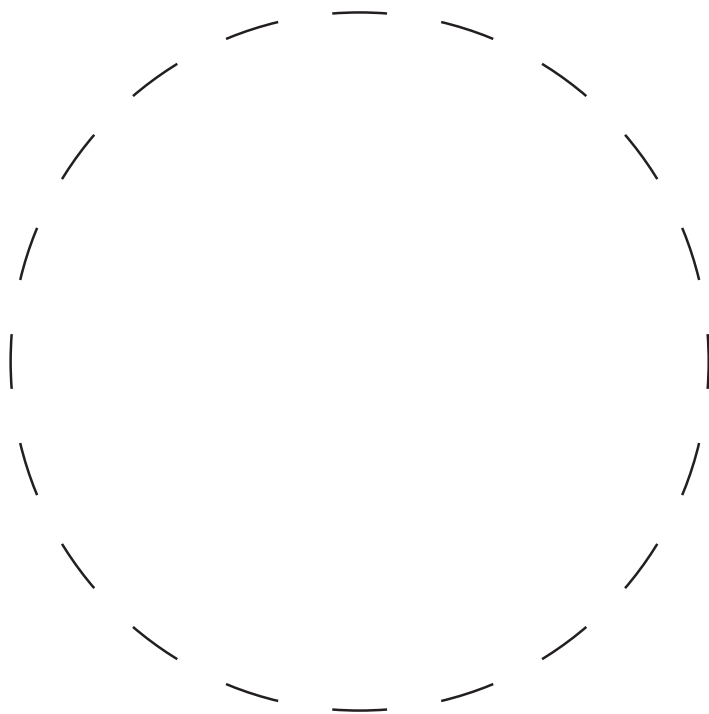
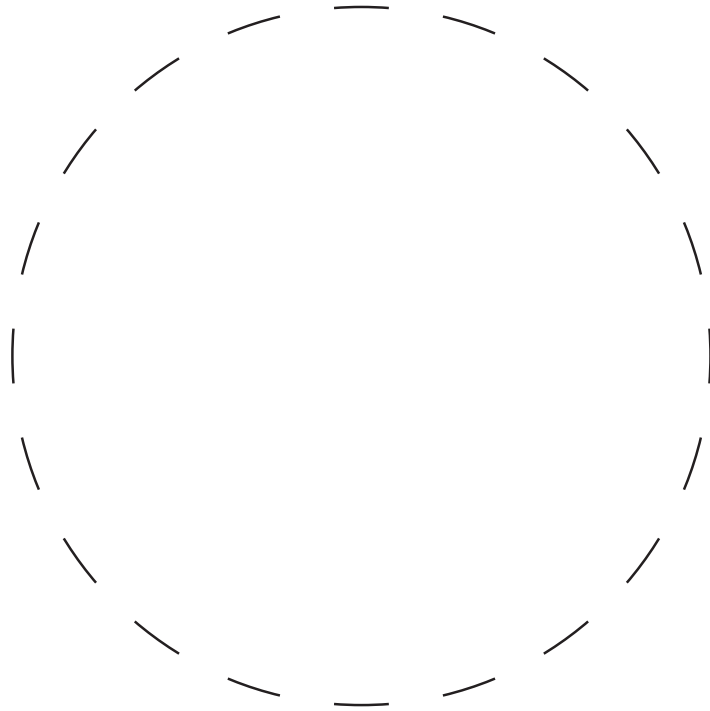


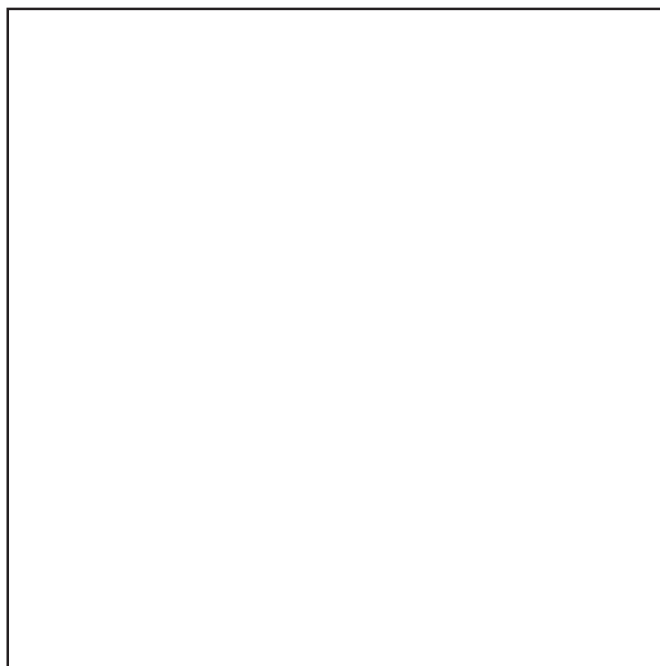
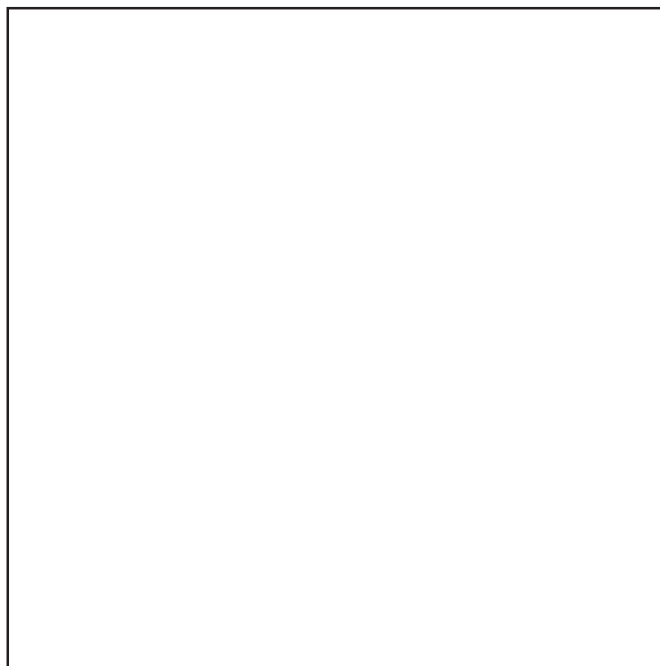


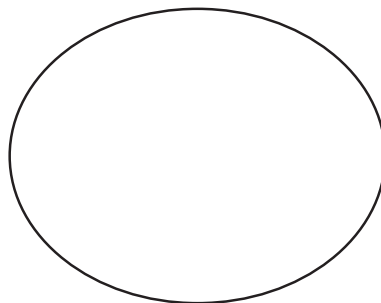
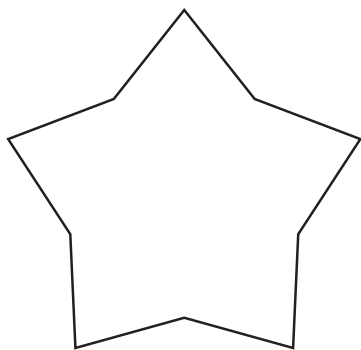
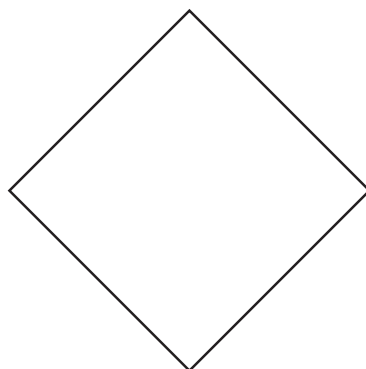
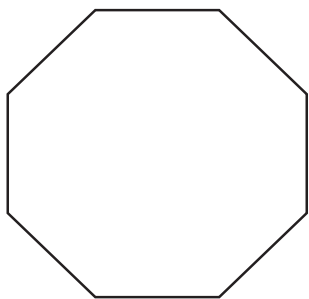
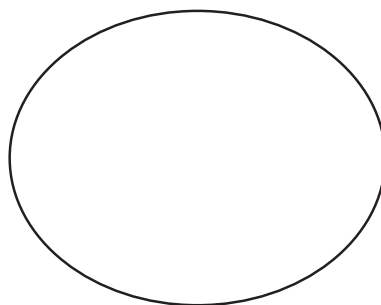
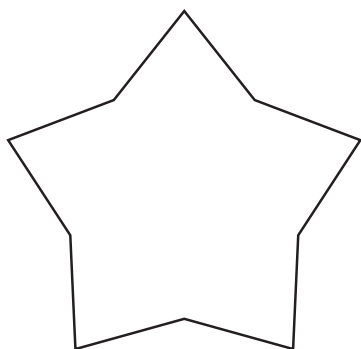
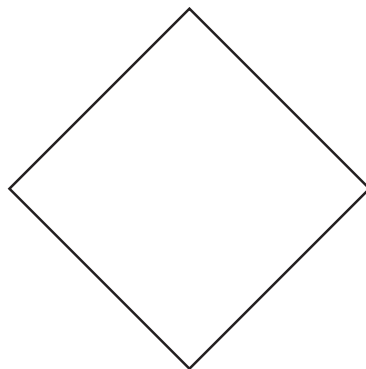
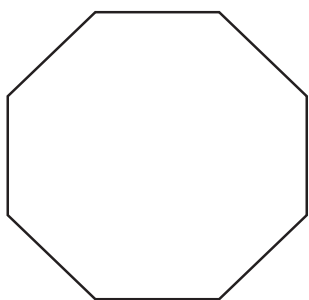


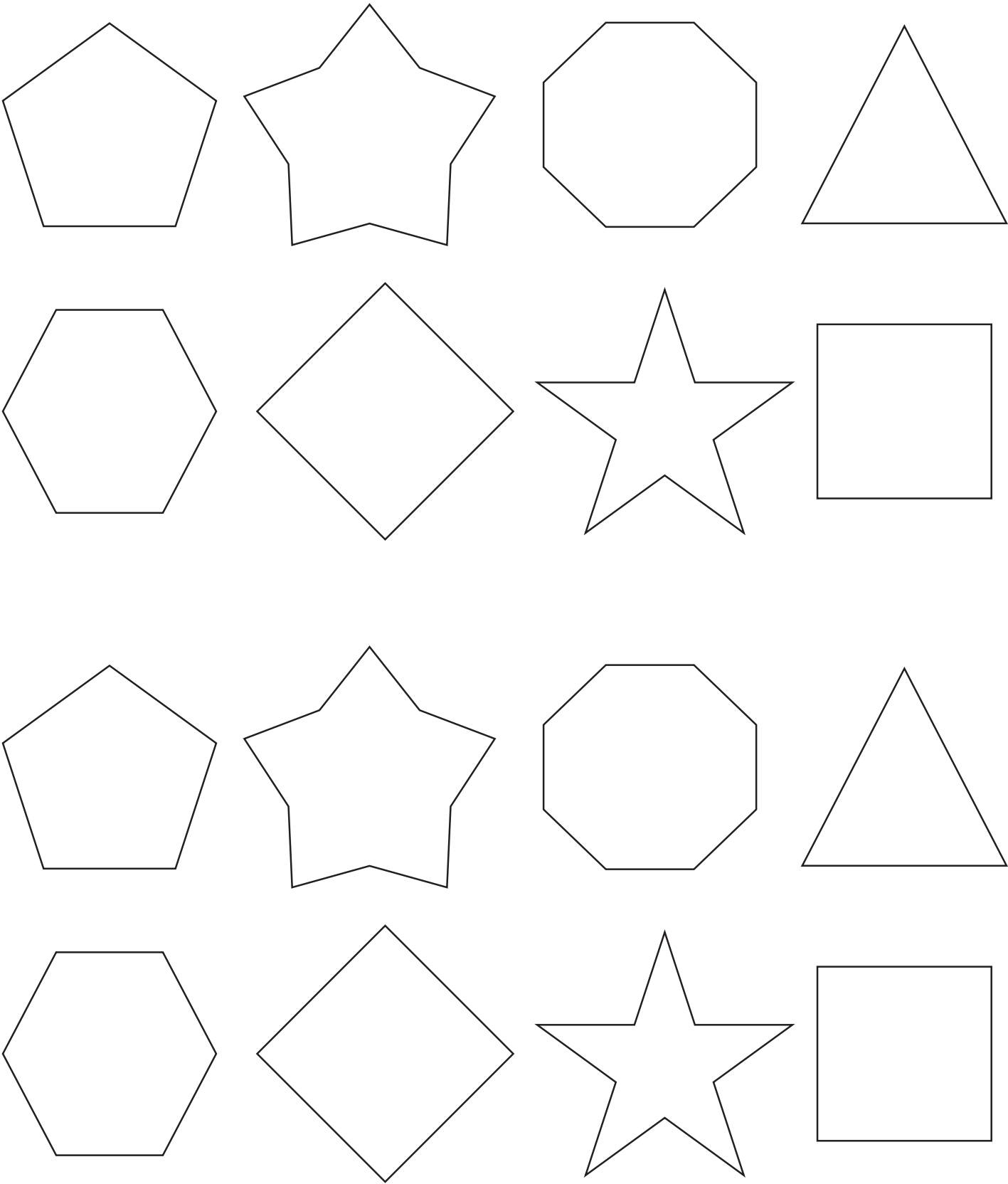


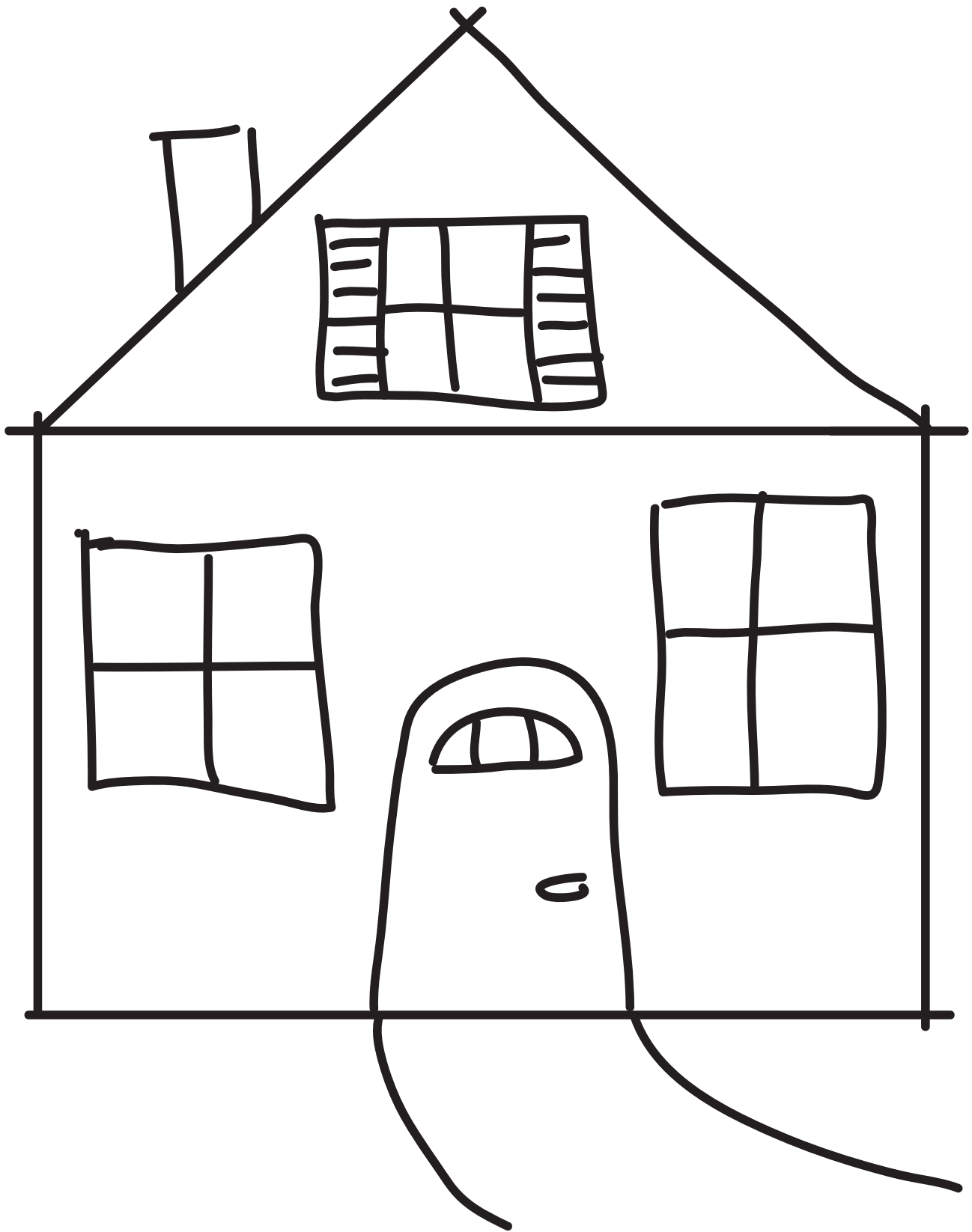


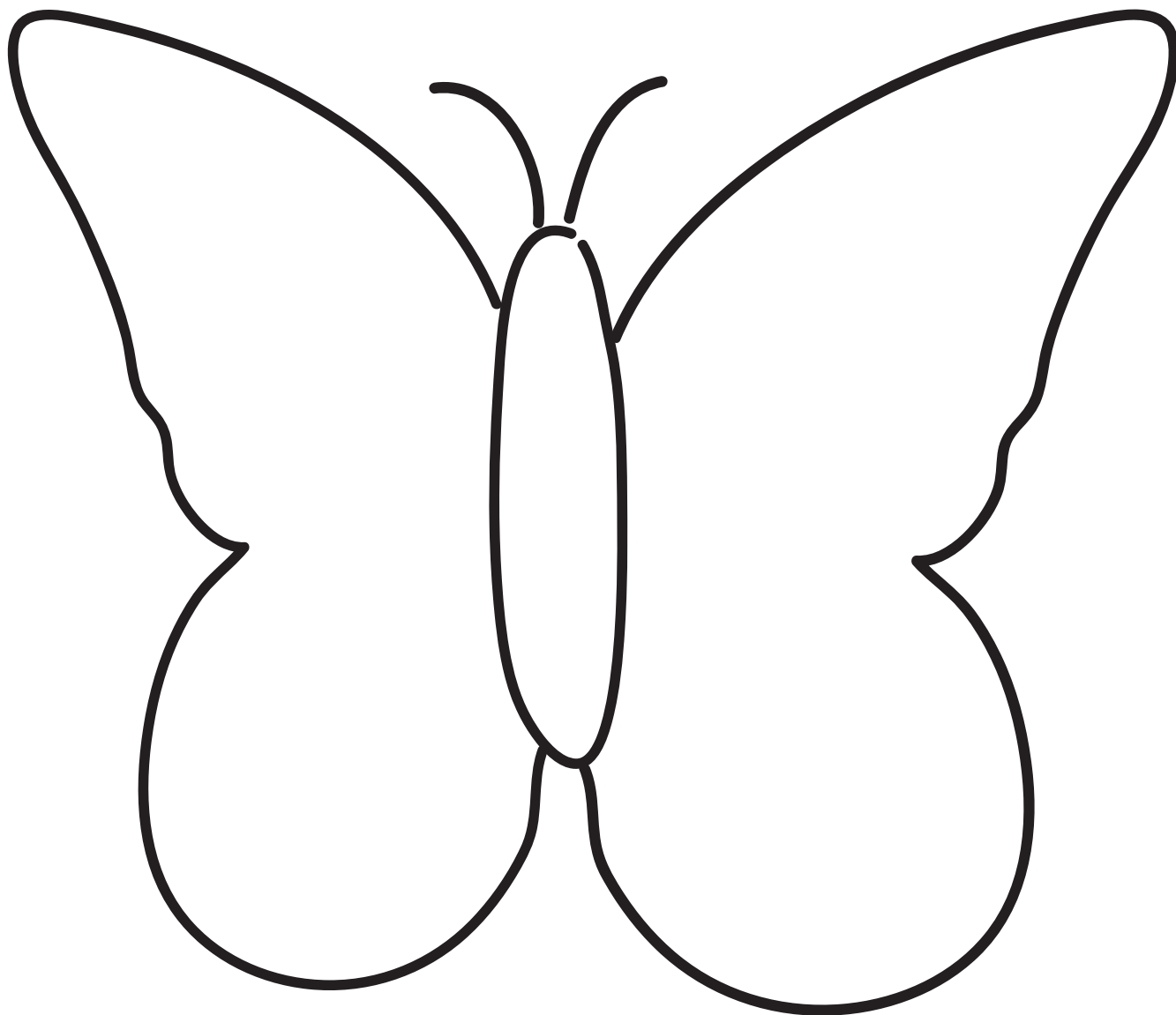


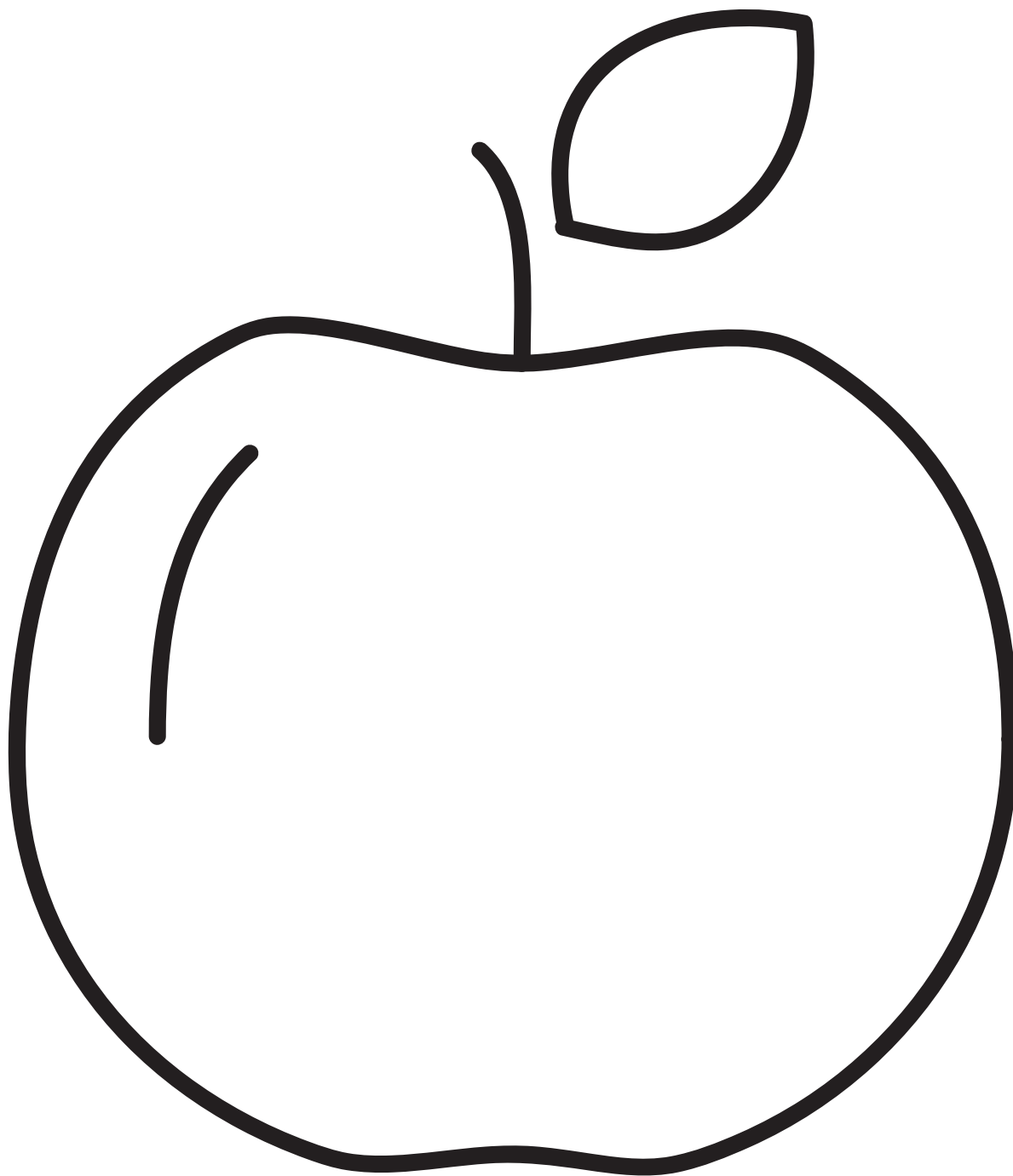


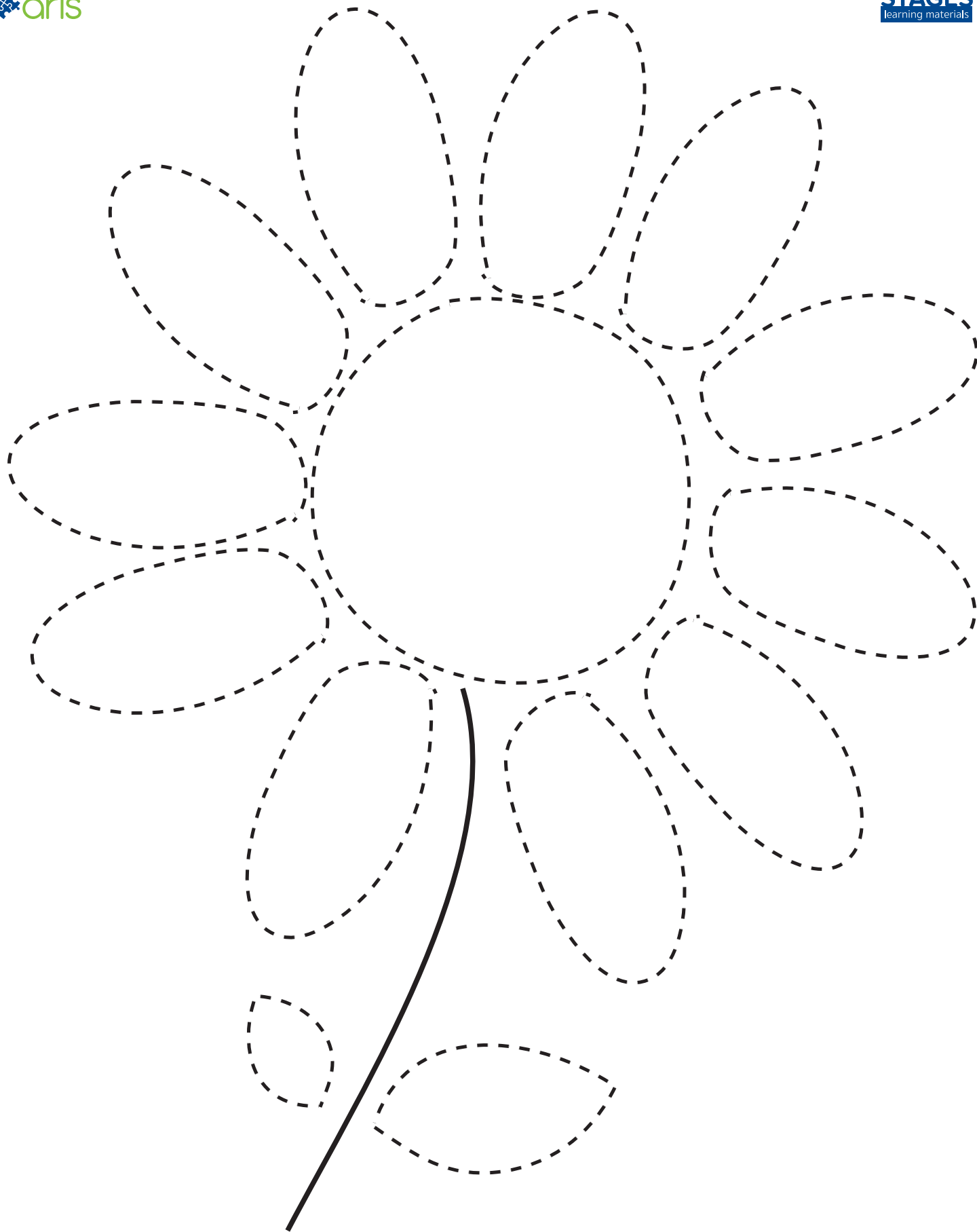


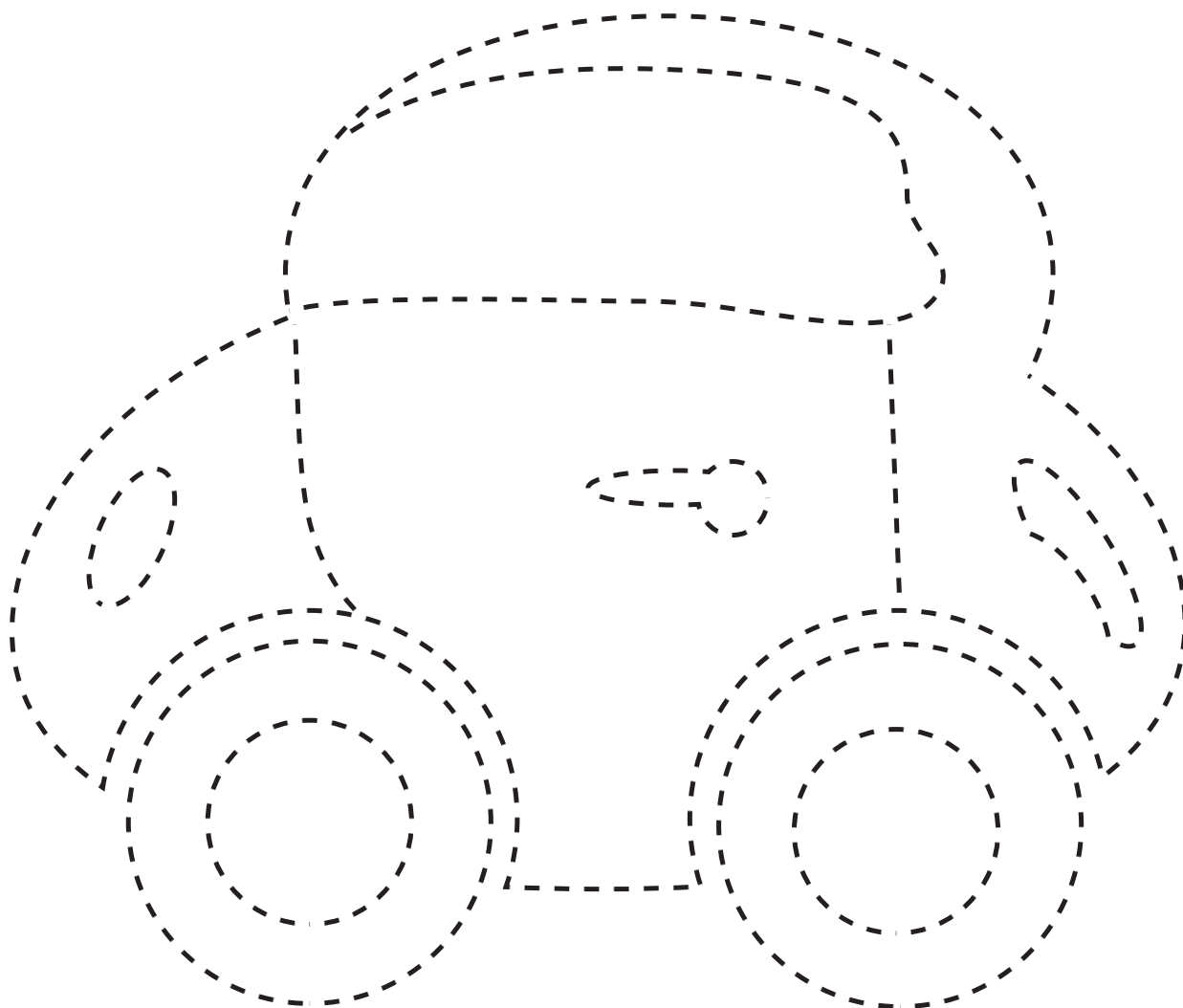


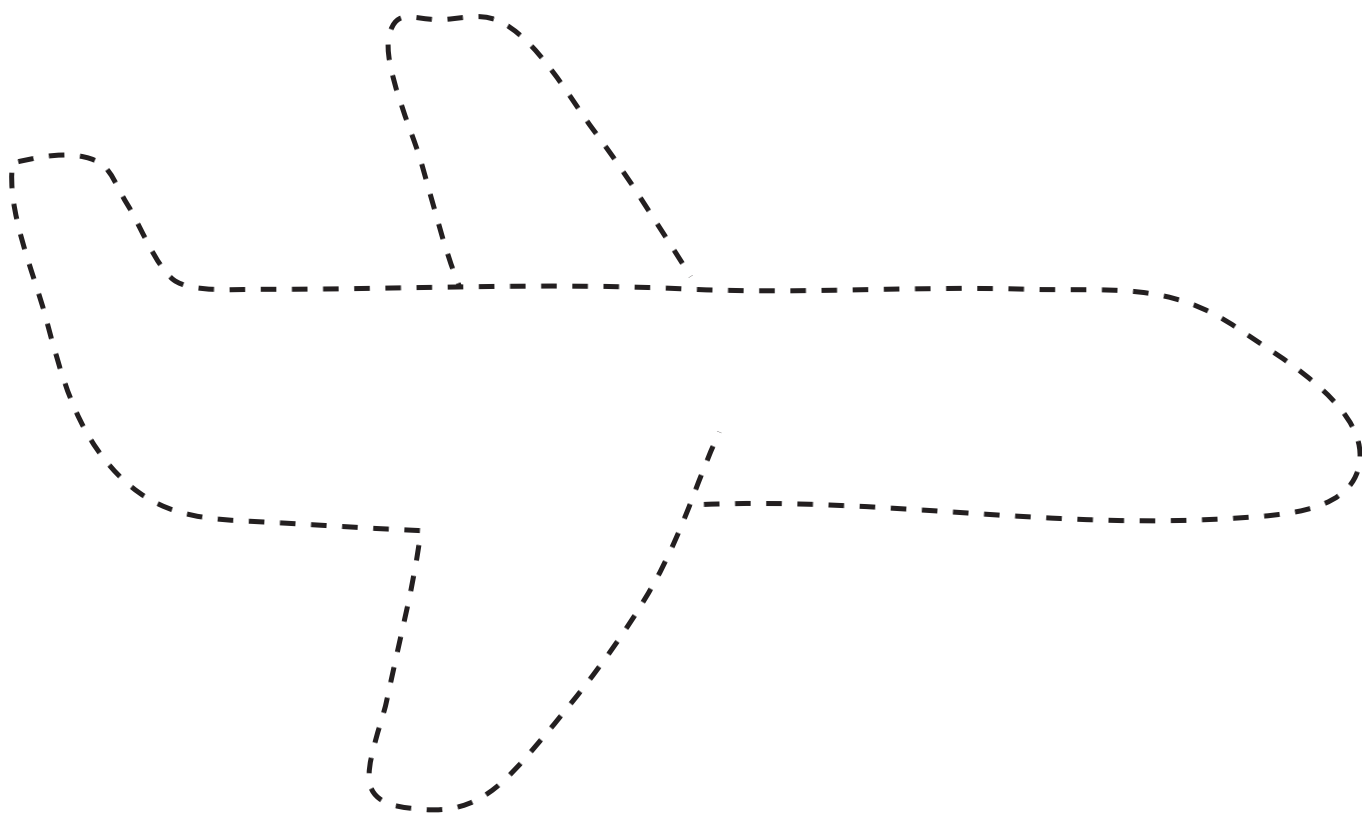


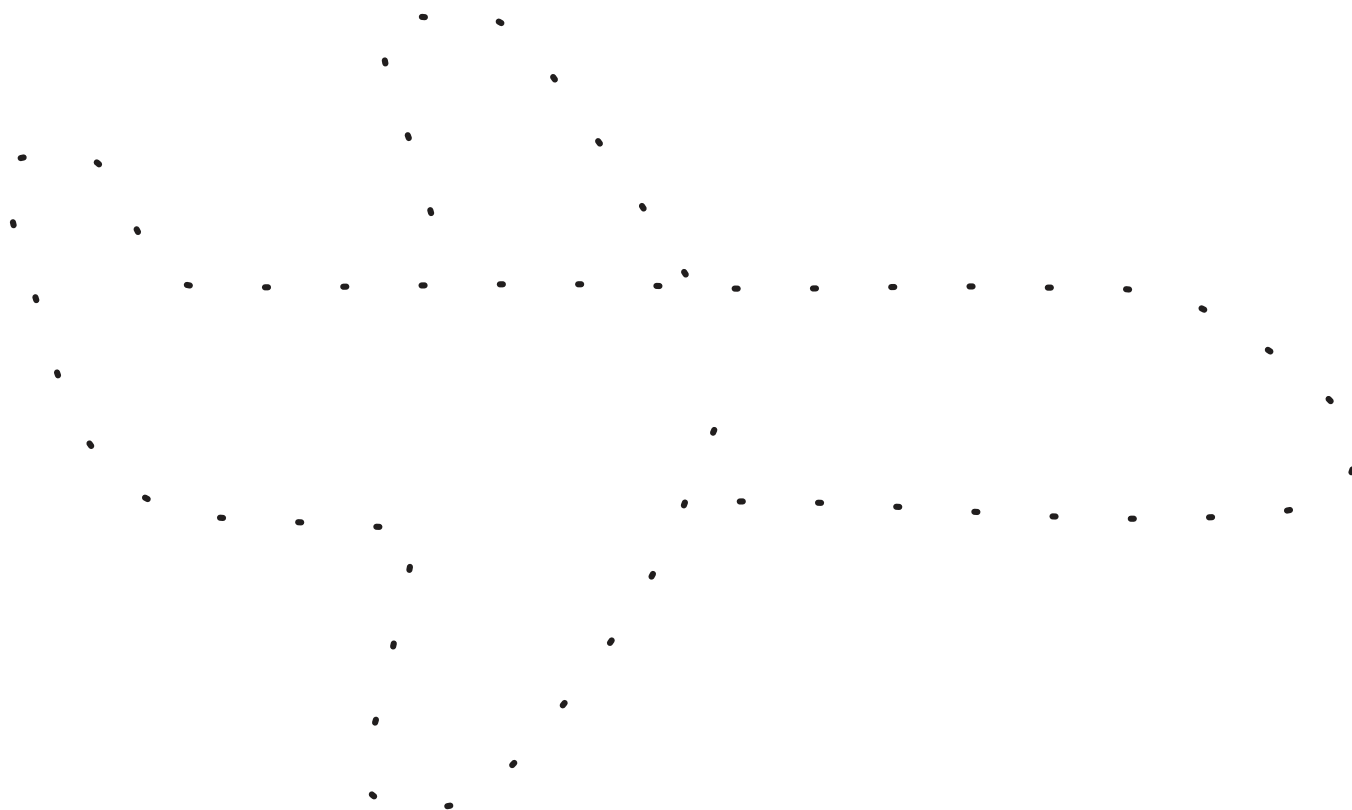


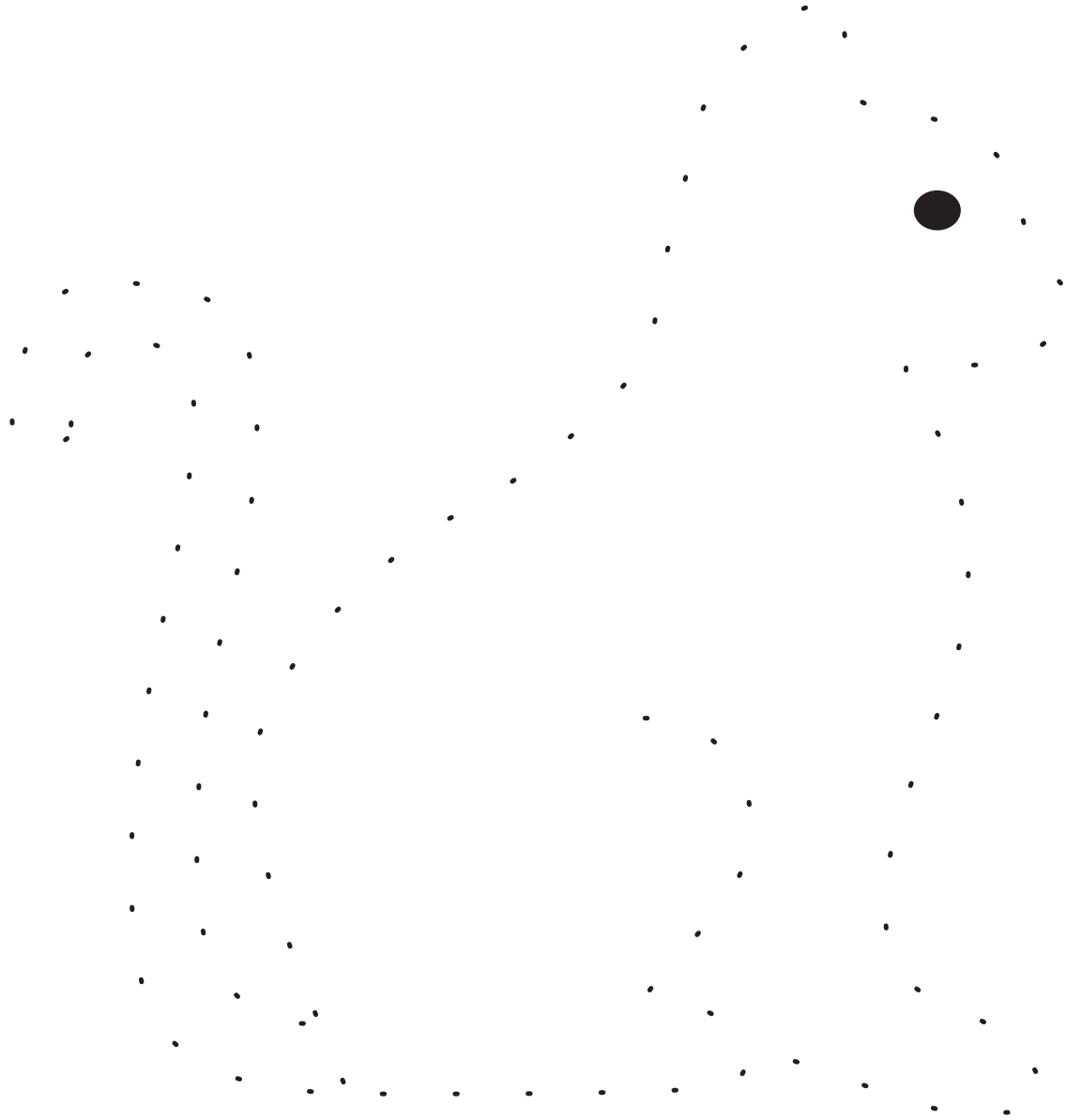












8. Glossary

GLOSSARY WORDS	Primary Definition
ABC Progression	In ABA, teachers/therapists approach every behavior as having 3 steps: Antecedent, Behavior, and Consequence. This is called the ABC Progression.
Academic Readiness Intervention System (ARIS)	Comprehensive early autism education curriculum, scope and sequence, and learning materials kit designed and produced by Stages Learning Materials.
Antecedents/Antecedent Strategy	Used in ABA therapy to refer to locations, activities, or events that trigger a behavior.
Applied Behavior Analysis (ABA)	A type of therapy, based on learning and behavioral science, that improves motor skills, social skills, learning skills, and other behaviors, while reducing negative behaviors.
Array	Used in discrete trials and ABA therapy to refer to the arrangement and position of materials in front of a child.
Assessment of Basic Language and Learning Skills	An assessment system based on the principles of Applied Behavior Analysis that includes 25 repertoire areas covering 544 skills.
Autism Spectrum Disorder	A broad range of neurological conditions that commonly creates challenges in language and communication skills, social interactions, and nonverbal behaviors.
Backward Chaining	Breaking down the steps of a task and teaching them in reverse order.
Behavioral Momentum	Mixing in a request that a student is less likely to comply with, with a series of requests that a student is more likely to comply with to increase the odds that the student gets "on a roll" and complies with the lower probability request.
Blackline Masters	Resources that the publisher has authorized teachers to photocopy as desired.
Chaining	An ABA term referring to a method of teaching complex skills by using a sequence of discrete steps, which sequentially form the complete task; variations include forward and backward chaining.
Common Core State Standards	A national framework that lays out what students should know and be able to do at the end of each grade in the United States.
Consequence	Used in Applied Behavior Analysis to refer to the action or response that either modifies or reinforces a specific behavior.
Decoding	The ability to correctly pronounce words based upon the knowledge of letter and sound patterns.
Differential Reinforcement	A set of strategies that broadly refer to ways of reinforcing desired behaviors and not reinforcing undesirable behaviors.
Differentiation	The customization or tailoring of teaching based on individual abilities.
Discrete Trial	An intervention technique commonly used in Applied Behavior Analysis therapy that breaks skills down into smaller components and teaches skills step-by-step.
Distractor	Used in discrete trials to refer to the non-targeted items in front of the child; often a bland, visually uninteresting item.
Echoics	Part of expressive language that refers to the ability to vocally imitate upon request.
Expanded Trial	The systematic increase in time between presenting a student with a target by gradually increasing the number of distractor trials between the target trials
Expressive Language	The ability to put thoughts into words and sentences in a coherent, grammatically correct way; includes mands, tacts, echoics, and intraverbals.
Extinction	Used in ABA therapy to refer to the gradual process of removing a reinforcement that is being used to reduce or eliminate a behavior.
Extinction Burst	When extinction is first initiated, the student will often increase a negative behavior in an effort to regain the reward.
Field	The number of items in an array.
Fine Motor Skills	The set of skills needed for manual dexterity, often requiring hand-eye coordination
Forward Chaining	Teaching a behavior step-by-step in its naturally occurring order.

Full Physical Prompt (FP)	Part of the ABA prompt hierarchy, offering hand-over-hand assistance to elicit a correct response.
Functional Routines	Regularly occurring events that require a chain of behaviors to accomplish the final outcomes, such as getting ready for bed or eating breakfast.
Generalization	The act of taking an acquired skill and applying it to other settings and other people.
Gestural Prompt (G)	Part of the ABA prompt hierarchy, using gestures (such as pointing), to guide the learner to the correct response.
Gradual Random Rotation	The presentation of two or more mastered items where the items are presented randomly between all the targets.
Gross Motor Skills	The set of skills needed for broader movements such as running, walking, and jumping, often involving the larger muscles in the body.
Head Start Early Learning Outcomes Framework	A research-based guide to the knowledge, skills, and behaviors that all children should develop during their first 5 years.
Intraverbal	Part of expressive language that refers to more advanced language and conversation skills, such as the ability to discuss, describe, or answer.
Language Builder Cards	Series of materials designed to support ABA therapeutic and educational strategies developed by Stages Learning Materials.
Learning Progression	The roadmap that learners follow to master skills, often sequenced and ordered by subject or category.
Maintenance	Practicing a skill after mastery to help retain the skill.
Mands	Part of expressive language that refers to requests of needs and wants.
Manipulatives	Tangible objects that can be moved or handled to assist in mastering learning objectives.
Massed Trial/Discrete Trial Training	An instructional technique that presents a stimulus, asks for a response, and reinforces the response.
Model Prompt (M)	Part of the ABA prompt hierarchy, demonstrating the desired response without physical touching.
Natural Cure/Independent Prompt	Part of the ABA prompt hierarchy, offering no prompt to complete a task.
Negative Reinforcement	The removal of a stimulus following a behavior that increases the likelihood of that behavior occurring in the future.
Pairing	The ongoing process of developing or maintaining rapport with a child by associating the instructor/therapist/adult as a positive reinforcement; often uses items, activities, or food enjoyed by the child.
Partial Physical Prompt (PP)	Part of the ABA prompt hierarchy, providing minimal physical guidance to elicit the correct response.
Phonemic Awareness	The ability to distinguish, manipulate, and identify sounds (or phonemes) in words, a skill necessary for reading.
Phonological Awareness	Broad set of skills that involve identifying, manipulating, and distinguishing the sound structure of words.
Positional Prompt (POS)	Part of the ABA prompt hierarchy, placing stimuli in a location or sequence that ensures a correct response.
Positive Behavior Management	A behavior modification technique that is used to increase or decrease a particular behavior or reaction through the use of positive reinforcement.
Positive Reinforcement	Providing a reward following a behavior to increase the likelihood of that behavior occurring in the future.
Preference Assessment	Observations or systematic evaluations that help teachers evaluate the items a child prefers for use as positive reinforcers.
Primary Reinforcer	Objects that are naturally reinforcing or preferred to a child such as edible items, toys, music, or bubbles.
Progress Tracking	A tool to help visualize growth and mastery of skills.
Prompt Fading	The systematic reduction of the amount and intrusiveness of the prompts used to have a child succeed at a skill.

Prompting	A tool used in ABA therapy that helps a child increase the number of correct responses. A hierarchy of prompts exist, with full physical prompting being the most intrusive prompt and natural or independent being the least intrusive.
Receptive Language	The ability to understand information - the words, sentences, and meaning of what others say or what is read.
Reinforcement/Reinforcers	Any stimulus, event, or condition whose presentation immediately follows a response and either increases or decreases the frequency of that response; reinforcers can either be positive or negative; sometimes referred to as listener responder behavior.
Response Cost	Removing reinforcement for an undesirable or disruptive behavior. In terms of ABA, it is a form of negative punishment.
Scope & Sequence	The scope refers to the areas of development addressed by the curriculum. The sequence includes plans and materials for learning experiences to support and extend children's learning at various levels of development.
Secondary Reinforcers	Items, like tokens, that can be used to earn primary reinforcers, like food or a toy.
Shaping	Method of adding new behavior to a child's repertoire; used when the target behavior does not yet exist, but the child is able to do something similar.
Social-Emotional Skills	The set of knowledge, mindsets, and behaviors needed to manage and express emotions, interact positively with others, make responsible decisions, and set and achieve goals.
Social Stories	Model stories used as an educational tool to demonstrate social interactions, social cues, and share information about a specific scenario.
Speech Language Pathologist (SLP)	A health professional who diagnoses and treats problems with speech, language, communication, voice, swallowing, and fluency.
Stimuli	A thing or event that spurs a reaction.
Tacts	Part of expressive language that refers to labeling of things such as objects, pictures, sights, smells, etc.
Target	Used in discrete trials to refer to the word, picture, object, item, or concept that is being taught.
Target Behavior	In the context of a Behavior Management Plan, a target behavior is the behavior that you are working to change.
Task Analysis	The breaking down of larger, complex skills into smaller, individual skills that can be more easily taught.
Theory of Mind	The ability to think about both one's own and other's mental state; people with autism spectrum disorder commonly work on improving theory of mind skills.
Token Economy	A behavior management tool designed to increase desirable behavior and decrease undesirable behavior with the use of tokens, secondary reinforcers that are collected and traded in for primary reinforcers.
Verbal Behavior Milestones Assessment and Placement Program	Often referred to as VB-MAPP, an assessment tool, curriculum guide, and skill tracking system designed for children with autism or related language delays.
Verbal Prompt (FV or PV)	Part of the ABA prompt hierarchy; offering a direct statement of what to do or say.
Visual Prompt (VIS)	Using pictures, symbols, and/or text to assist the learner to the correct response.
Whole Child Development	An initiative by the Association for Supervision and Curriculum Development that promotes holistic student development and success, including academic readiness, critical thinking skills, and social-emotional wellness.

- Association for Supervision and Curriculum Development (ASCD). Whole Child Initiative. <http://www.ascd.org/whole-child.aspx>
- Alberto, A.A., & Troutman, A.C. (2012). *Applied behavior analysis for teachers*. (9th edition). New Jersey: Pearson.
- Baer, D.M., Wolf, M.M., & Risley, T.R. (1968). Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis*, 1, 91 - 97.
- Barnes, C.S.; Mellor, J. R. & Rehfeldt, R. (2014). Implementing the Verbal Behavior Milestones Assessment and Placement Program (VB-MAPP): Teaching Assessment Techniques. *The Analysis of Verbal Behavior*, 30(1): 36-47. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4883535/>
- Blumberg, E.R. & Hurley, E. (2007). *Enhancing early intervention for parents of young children with autism spectrum disorders: Information, strategies, & resources*. New Brunswick, NJ: The Elizabeth M. Boggs Center on Developmental Disabilities.
- Cohen, H.; Amerine-Dickens, M.; Smith, T. (April 2006). Early intensive behavioral treatment: Replication of the UCLA Model in a community setting. *Journal of Developmental & Behavioral Pediatrics* 27(2), p. S145-S155.
- Collaborative for Academic, Social, and Emotional Learning (CASEL). Five Core Competencies for Social-Emotional Learning Framework. <https://casel.org/what-is-sel/>
- Cooper, J., Heron, T., & Heward, W. (2007). *Applied behavior analysis*. New Jersey: Pearson Education.
- Earles, T., Carlson, J., & Bock, S.J. (1998). Instructional strategies to facilitate successful learning outcomes for students with autism. *Educating Children and Youth with Autism*. Austin, TX: Pro-Ed.
- Gray, C. (2015). The new social story book, revised and expanded 15th Anniversary Edition: Over 150 social stories that teach everyday social skills to children and adults with autism and their peers. Arlington, TX: Future Horizons, Inc. (See ARIS Lesson 68 - "Teacher Tip.")
- Head Start Early Learning Outcomes Framework: Ages Birth to Five. A guide to what children should know and do in five central developmental domains. <https://eclkc.ohs.acf.hhs.gov/interactive-head-start-early-learning-outcomes-framework-ages-birth-five>
- Hieneman, M. (2015). Positive behavior support for individuals with behavior challenges. *Behavior Analysis in Practice*, 8, 101-108.
- Hess, K. K. (Ed.) (December 2010). Learning progressions frameworks Designed for use with the Common Core State Standards in Mathematics K-12. National Alternate Assessment Center at the University of Kentucky and the National Center for the Improvement of Educational Assessment, Dover, NH. (updated-v.3). https://www.nciea.org/publications/Math_LPF_KH11.pdf
- Lovaas, O. I. (1987). Behavioral treatment and normal educational and intellectual functioning in young autistic children. *Journal of Consulting and Clinical Psychology*, 55(1), 3-9.
- Malott, R. & Trojan-Suarez, E. (2004) *Principles of Behavior*. New Jersey: Pearson/Prentice Hall.
- Matson, J. & Boisjoli (2009). The token economy for children with intellectual disability and/or autism: A review. *Research in Developmental Disabilities*, 30, 240-248.
- Mautone JA, Marcelle E, Tresco KE, Power TJ (2015). Assessing the quality of parent-teacher relationships for students with ADHD. *Psychology in the Schools* Feb;52(2):196-207.
- McEachin, J. J., Smith, T., & Lovaas, O. I. (1993). Long-term outcomes for children with autism who received early intensive behavioral treatment. *American Journal on Mental Retardation*, 97, 359-372.
- McLeod, S. A. (2018). Skinner - operant conditioning. Simply Psychology. <https://www.simplypsychology.org/operant-conditioning.html>
- National Governors Association Center for Best Practices, Council of Chief State School Officers (2010). Common Core State Standards National Governors Association Center for Best Practices, Council of Chief State School Officers, Washington D.C
- Ray, K. P., Skinner, C. H., & Watson, T. S. (1999). Transferring stimulus control via momentum to increase compliance in a student with autism: A demonstration of collaborative consultation. *School Psychology Review*, 28(4), 622-628.
- Sallows, G.O. & Graupner, T.D. (2005). Intensive behavioral treatment for children with autism: four-year outcome and predictors. *American Journal of Mental Retardation* 110(6): 417-438.
- Smith, T. (2001). Discrete trial training in the treatment of autism. *Focus on Autism and Other Developmental Disabilities*, 16, 86-92.
- Sundberg, M. L., & Partington, J. W. (1998). *Teaching language to children with autism or other developmental disabilities*. Pleasant Hill, CA: Behavior Analysts, Inc.
- Tucker V, Schwartz I (2013). Parents' perspectives of collaboration with school professionals: Barriers and facilitators to successful partnerships in planning for students with ASD. *School Mental Health*, 5:3-14.



Implementation Guide

Academic Readiness Intervention System™

www.stageslearning.com

PO Box 460, Vista, CA 92085 | tel 888-501-8880 | fax 888-735-7791