

AKA SCIENCE

I M P A C T N W

New Class Leader Orientation
2022-2023





Training Flow

1. AKA Science

- Program Structure
- Requirements
- Supplies & Resources

2. Best Practices

- Trauma-informed Classrooms
- Differentiated Education
- Inquiry-based Learning
- Classroom Management

3. Topic Training



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AKA Science



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All Kids Are Scientists!

- Afterschool K-8 science program funded by Portland Children's Levy
- Fun, hands-on, inquiry-based science classes focusing on Biology, Chemistry, Physics, Earth Science, Forensic Science, Engineering, and more!
- Located at >60 locations, including SUN, Boys & Girls Clubs, and Portland Tennis & Education.
- Supports under-resourced students (average 84% FRL in FY21-22)
- 72% of students identify as Indigenous, Black, Brown, Melanated, Latino/Hispanic, Asian or Immigrant (FY 21-22)
- Result = increased knowledge & improved attitudes about science (96% in FY21-22)





Program Structure

- Year-round programming
- Small class size (12–15 kids)
- Structured as 8 one-hour lessons
- Flexible design allows you to expand or condense lessons
- Students take home some of the supplies & experiments
- Curriculum & supplies included except water and scissors





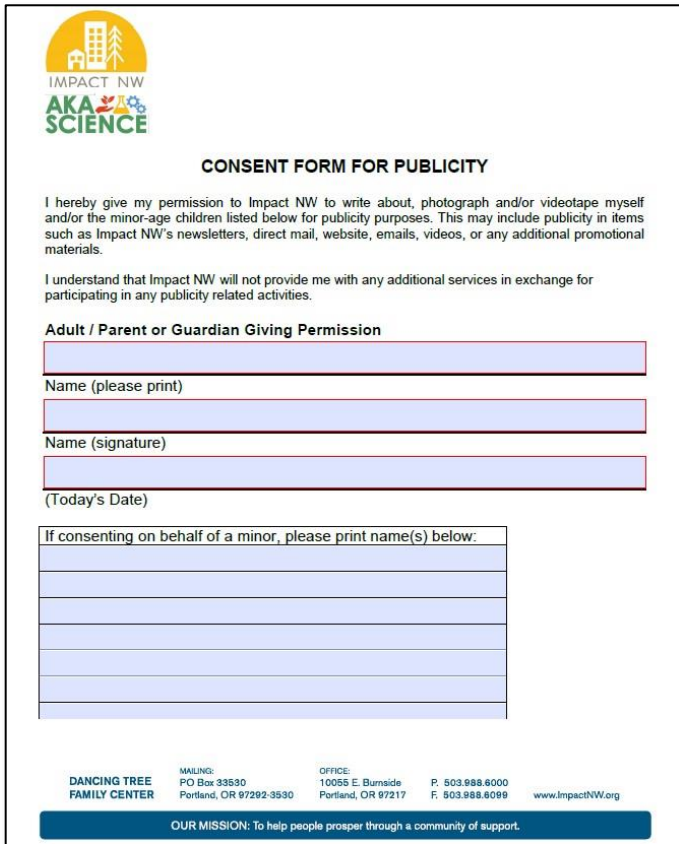
Supplies

- Contains almost everything you need for 15 kids, except water & scissors (sites provide)
- Packaged by class (flat things separate folders in kit box)
- Requires some prep before class (15 mins)
- Leftover materials belong to your site → use them, or return to us to be recycled



Required Handouts for Parents:

Media Release Form



**IMPACT NW
AKA
SCIENCE**

CONSENT FORM FOR PUBLICITY

I hereby give my permission to Impact NW to write about, photograph and/or videotape myself and/or the minor-age children listed below for publicity purposes. This may include publicity in items such as Impact NW's newsletters, direct mail, website, emails, videos, or any additional promotional materials.

I understand that Impact NW will not provide me with any additional services in exchange for participating in any publicity related activities.

Adult / Parent or Guardian Giving Permission

Name (please print)

Name (signature)

(Today's Date)

If consenting on behalf of a minor, please print name(s) below:

DANCING TREE FAMILY CENTER MAILING: PO Box 33530 OFFICE: 10055 E. Burnside
Portland, OR 97282-3530 Portland, OR 97217 P. 503.888.8000 F. 503.888.8099 www.ImpactNW.org

OUR MISSION: To help people prosper through a community of support.

Take-Home Advisory

Dear Parent/Guardian,

After every **AKA Science** class, your child may take home some of the supplies they used. This provides an opportunity for them to share what they learned and continue their experimenting at home!

Supply Advisory:

- Students should never put supplies in their mouths, in their eyes, or down a drain, etc.
- Some supplies could be a choking hazard for children ages 3 and under. If you have very young children at home, please make sure AKA Science supplies are kept in a safe place.
- Some supplies may contain latex.

If you have concerns about take-home supplies, please contact your after school coordinator. Thanks!

- Both handouts must go home with parents (not stuffed in students' backpacks) on first day of class
- Media Release (i.e. Consent Form for Publicity) must be signed and returned to you



Required Procedures for Students:


Grades 4–6 ONLY:

Pre-surveys →

administer first day of class

Post-surveys →

administer second-to-last day of class (and last class for any absent student)


 First Name: _____
 Last Name: _____
 Grade: _____
 School: _____
 Date: _____

Pre-Survey

What do you think about science? Please check the box that describes what you think.

1. I think that science is: Fun Sort of fun Boring

2. I like doing experiments: Yes Sort of No


3. I want to learn more about science: Yes Sort of No

Here's a sneak peek at what you'll be learning in this class. For each question, circle your best guess. If you aren't sure, that's OK...you'll find out during the next few weeks!

1. Food gives animals the _____ they need to live, move, and grow.
 a. Hypothesis b. Polymers c. Energy

2. What do you call the features of living things that help them survive?
 a. Classifications b. Adaptations c. Dispersals

3. What do you call a community of living things and the place where they live?
 a. An ecosystem b. An evolution c. An arthropod


 First Name: _____
 Last Name: _____
 Grade: _____
 School: _____
 Date: _____

Post-Survey

What do you think about science? Please check the box that describes what you think.

1. I think that science is: Fun Sort of fun Boring

2. I like doing experiments: Yes Sort of No

3. I want to learn more about science: Yes Sort of No

Let's see what you've learned! Please answer the following questions:

1. Food gives animals the _____ they need to live, move, and grow.
 a. Hypothesis b. Polymers c. Energy

2. What do you call the features of living things that help them survive?
 a. Classifications b. Adaptations c. Dispersals

3. What do you call a community of living things and the place where they live?
 a. An ecosystem b. An evolution c. An arthropod

4. What did you like about this AKA Science class? _____





Important Notes:

- Check email regularly for communications from AKA Science staff
- Email us if you any kit materials are missing or damaged!!!
- Send us good photos of AKA students with media releases
- Utilize our resource website → www.akascience.org



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Best Practices



Trauma-Informed Classrooms

- Direct vs indirect trauma
- Acute trauma
- Insidious/Ambient/Enviro. trauma
- Chronic trauma





Handling Trauma Responses

- Fight, flight, freeze response
- Promoting resiliency
- Regulate, relate, reason
- Mindfulness

TRAUMA RESPONSES

<p>FIGHT</p>  <ul style="list-style-type: none">• Anger• Irritability• Aggression	<p>FLIGHT</p>  <ul style="list-style-type: none">• Anxiety & Fear• Panic• Worrying
<p>FREEZE</p>  <ul style="list-style-type: none">• Immobilization• Dissociation• Depression	<p>FAWN</p>  <ul style="list-style-type: none">• People Pleasing• Can't say NO• Prioritize others <p><small>! TheMindsJournal</small></p>

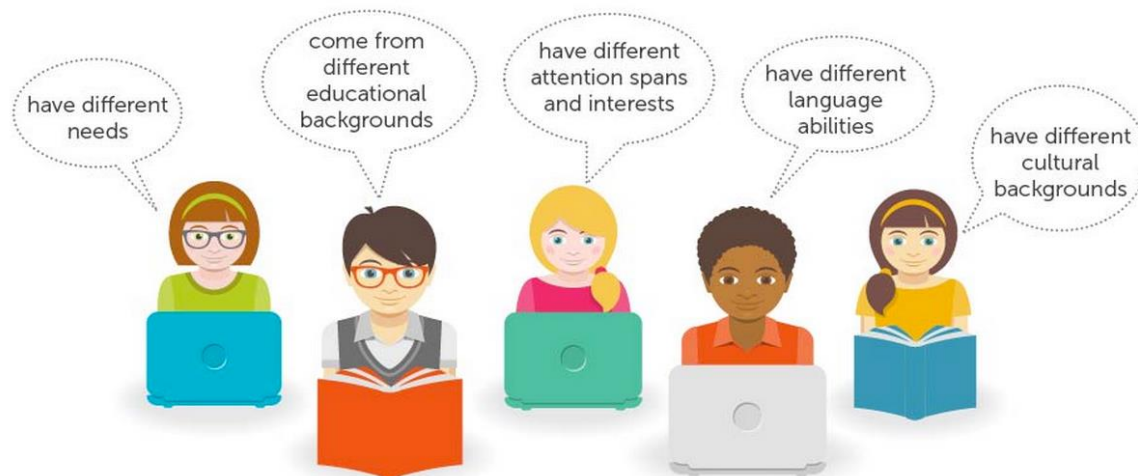


Differentiated Education

- Differentiation means tailoring instruction to meet individual needs. Whether teachers differentiate content, process, products, or the learning environment, the use of ongoing assessment and flexible grouping makes this a successful approach to instruction.

WHY DIFFERENTIATED INSTRUCTION?

Classrooms are filled with students who:



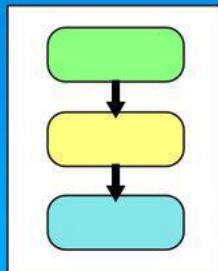


Meet students where they're at

- Modify and adjust the way you teach to support your youngest and oldest learners
- **For younger learners:** take time to walk through more complicated steps and concepts
- **For older learners:** challenge them to take the experiments further!

Differentiated Instruction Examples

Graphic Organizer



Hands-on Activity



Students Choose

<input checked="" type="checkbox"/>	1. Question
<input type="checkbox"/>	2. Question
<input type="checkbox"/>	3. Question
<input checked="" type="checkbox"/>	4. Question
<input checked="" type="checkbox"/>	5. Question

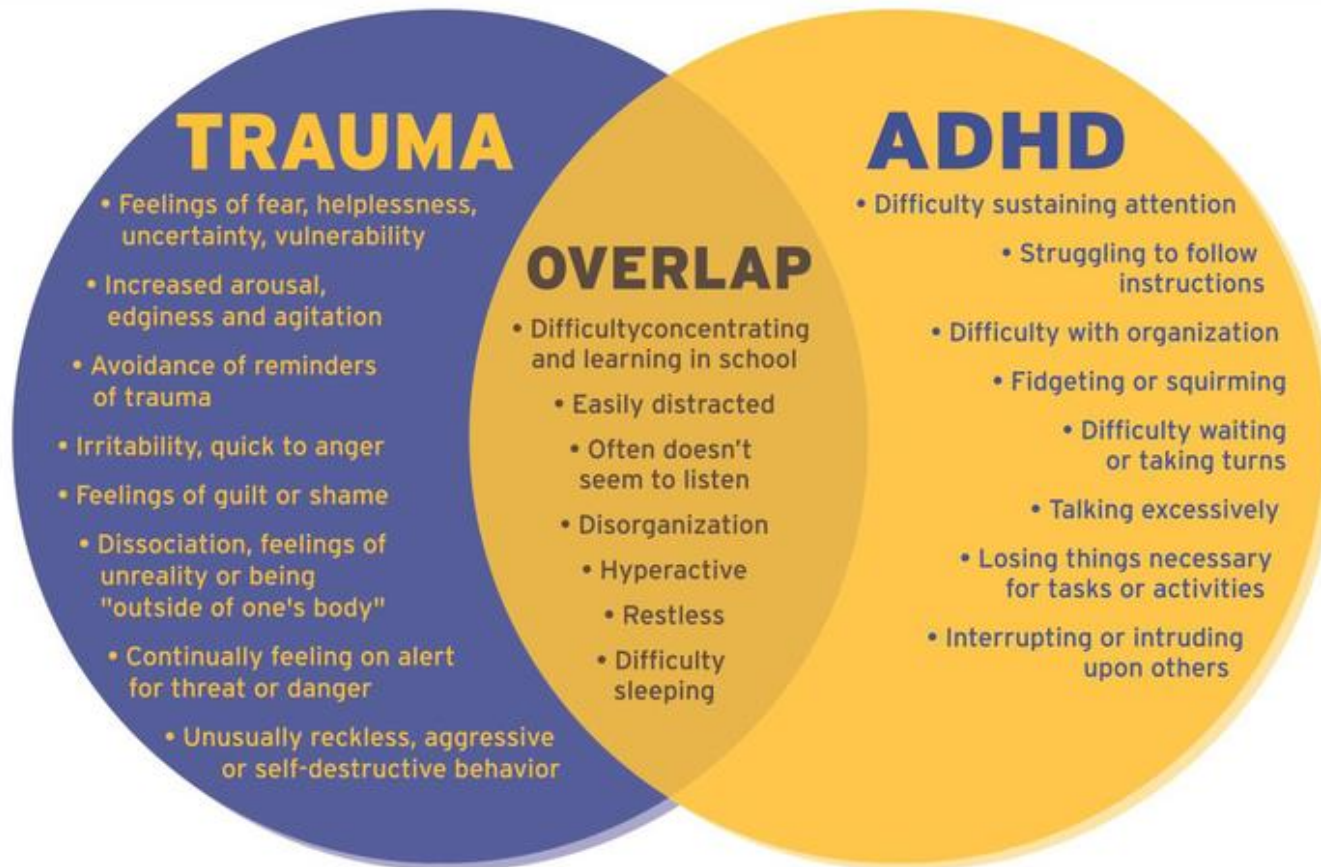
Stretch Break





Neurodivergence can look like trauma

- For high-needs learners: ask your Site Manager for a paraeducator or other assistance in the classroom.





Inquiry-based Learning

- Make space for questions
- Build confidence with Pair & Share
- Guide students to discovery
- Tailor activity to reflect interests
- Allow for play & exploration
- Use pics, models & demos
- Learn from mistakes
- Reflect & make connections



Student voice and choice

- Allow students to chose between activities
- If students are excited about the current activity, encourage them to explore further instead of moving to the next experiment
- Play with new materials
- Don't be afraid to make mistakes!



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Classroom Management

- Set the tone
- Behavioral expectations
- Establish attention-getters
- Set yourself up for success



Class Rules

1. Work as a **TEAM**
2. Be **RESPONSIBLE**
3. **LISTEN** to others
4. Be **RESPECTFUL** to everyone
5. Be **KIND** and **HELPFUL**
6. Do your **BEST**

Bionca Jennifer
 gigan Brylen Jiani
 Charite Jackson Ethan Mikayla Antonio
 William Jose Stacey
 Danton Caleb Samantia
 Ardis Anasta Tyler

Be a community.

Be gentle, kind, caring and nice.

Listen.

Help others.

Hands to yourself

Walk safely.

Speak softly.

Clean up.

Our Agreements

- Keep your hands to yourself.
- Raise your hand.
- Be gentle with other people's bodies.
- Use Kind words.
- Clean up our materials.
- Share our materials.
- Take care of everyone's stuff.

RAFAEL
 COLLIER
 CHUGANI
 HUDON
 PIERRE
 CASPER
 BRITNEY MIA
 LUCY
 PARKER
 LUCY
 ZOE
 LIAM
 SOPHIA
 MATTEO
 LAUREN

Set the Tone: Day One!

- Land Acknowledgement followed by discussion questions
- Student-led discussion to establish class agreements (groundrules) that everyone agrees on and will be held accountable for
- Daily routine (circles, check-ins, stretches, debriefs, clean up)



Attention-Getters:

- Verbal call & response
 - *1, 2, 3 eyes on me! (1, 2 eyes on you!)*
 - *Bap-badda-bapbap (Bap bap!)*
 - *Red Robin (yummm)*
- Physical call & response
 - *Gimme Ten!*
 - *If you can hear me...*
 - *Clap patterns*
- Modeling
 - *I notice that Table One is ready*
 - *You can show me you're ready by...*
- Sounds / instruments



Behavioral Expectations:

- Unsafe supply use (*modeling will reduce this risk*)
 - Refer to class agreements
 - Check in individually & discretely or address the whole class in general (*Let's go through the activity steps together and how to use these supplies safely.*)
 - Take supply away until they agree to use it safely, help others with their activity in the meantime/ help you demonstrate safe usage
 - Sit this activity out in the “vacation station”





Behavioral Expectations:

- Speaking out of turn (*every classroom experiences this*)
 - Refer to class agreements
 - Remind students that *right now it's time to listen* and that *we all agreed to raise our hands to speak*
 - Check in individually and discretely (*Are you being your best self right now? I notice you are struggling with your voice today; what can we do?*)
 - Start a list of students with hands up and call on students in order (first specify how many hands you'll take)



Speaking out of turn continued:

- Move student(s) into another group/ seating arrangement
- Become passer-outer or activity demonstrator
- Sit this activity out in the “vacation station”
- Do a quick breathing or stretching exercise as a class if more than one student is struggling to control their voice
 - Movement breaks are especially important for many neurodivergent kids!



Summary of Success:

- Read through lesson plan & test activities before class
- Choose seating arrangements & pairings wisely
- Always model activities so students know what to expect
- Pace how and when you pass out materials
- Adjust teaching & materials to meet students where they're at
- Move on from activities that aren't working, extend the activities that *are* working





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THANK YOU AKA Science Class Leaders!

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