

UNIVERSAL SENSORY STRATEGY PACKAGE 2 - DEEP PRESSURE & HEAVY WORK STRATEGIES

Why use these strategies:

1. DEEP PRESSURE:

Deep pressure input has a calming effect on the nervous system. Some students with regulation challenges benefit from regular deep pressure input to help them participate in their school day. Monitor the student's response after deep pressure input to determine effectiveness. Start with indirect deep pressure input before trying direct (hands-on) input. School teams can try these universal strategies without OT input. See page 2-3 for strategies.

*Always honor students who request not to have tactile/deep pressure input; instead, try heavy work activities.

*If using direct hands-on deep pressure input, ensure parental and student consent.

*If a student has a diagnosis that implies physical complications, or you have questions about these strategies, consult your school OT for further clarification.

2. HEAVY WORK:

Heavy work refers to activities that add resistance to the muscles and joints. This input is also called proprioceptive input. It is organizing and calming for the nervous system, and it also helps to improve body awareness. Heavy work can involve the whole body, the hands, or the mouth. The student is actively involved in these activities. School teams can try these activities without OT input. See page 4 (and beyond) for strategies.



STRATEGIES FOR INDIRECT DEEP PRESSURE INPUT

➤ Furniture Options

- Bean bag, Yogibo, back jack chair, Howda Hug chair, weighted lap pad

➤ Tummy work

- Can be done in the classroom – any task completed while lying on tummy (drawing, reading etc. Keep in mind this is a challenging position to maintain; complete in short durations (eg. ~ 5 mins depending on child).

➤ High Kneeling

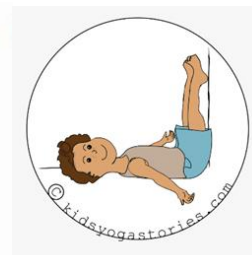
- Completing an academic/learning task at a low table or bench.

➤ Legs Up

- Student lies on their back with their legs up the wall; remain in place for 20-30 seconds (or longer if beneficial).

➤ Student self-applied deep pressure

- Give yourself a hug
- Rub your legs
- Squeeze or massage your own hands
- Roll a weighted or tennis ball over arm/legs
- Ball hugs: child holds medium size ball against their chest. Student squeezes and holds for 3-5 seconds. Repeat 3-5 times.



STRATEGIES FOR DIRECT HANDS-ON DEEP PRESSURE

**If using direct hands-on deep pressure, ensure parental and student consent.*

➤ Deep pressure squishes

- Keep pace of squishes slow and steady; complete 5-10x and check-in with student to see if another round would be helpful or not. Follow the child's lead.
- Arm/hand/feet squeezes – check in with student
- Shoulder compressions - student sits well supported on chair; adult applies downward pressure on both shoulders at the same time.

➤ Steamroller

- Student lies on tummy on a mat. EA rolls large therapy ball or large rolling pin over back, arms and legs – checking in with student regularly regarding how much pressure. 5 rounds over body – or more depending on time.

➤ Taco/Sandwich/Hot Dog/Hamburger/Pizza

- Child lies on the mat or on a beanbag chair. Adult squishes mat/beanbag around student like a taco (add “**toppings**” with each squish). Can also pile other pillows or beanbags on top of the student to make a big sandwich. Students typically prefer to remain in place for a few seconds before working their way out.

➤ Roll small, weighted ball or tennis ball over child's arms/legs



HEAVY WORK STRATEGIES:

Staying in the classroom

- Carrying books, paper, binders, or other school supplies across the classroom (pass out handouts to peers, assist teacher with clean-up, tidy own desk)
- Erase the board
- Use water bottle or spray bottle to wet desks and wipe with paper towel or cloth
- Stack/un-stack chairs
- Move a chair across the room
- Sharpen pencils with a manual sharpener
- Cutting stacks of thick paper
- Squeeze a stress ball, playdoh or silly putty
- Help the teacher set up gym equipment
- Action breaks
- Jumping Jacks, Burpees
- Isometric exercises (see handout later in this package)
- Chair push-ups, desk push-ups
- Wall press - hands on wall, feet further away, "push the wall down"
- Big arm circles, standing up
- Quick football run on the spot, followed up with deep breathing
- Sucking from a water bottle – SEE ALSO HEAVY WORK IDEAS FOR THE MOUTH.



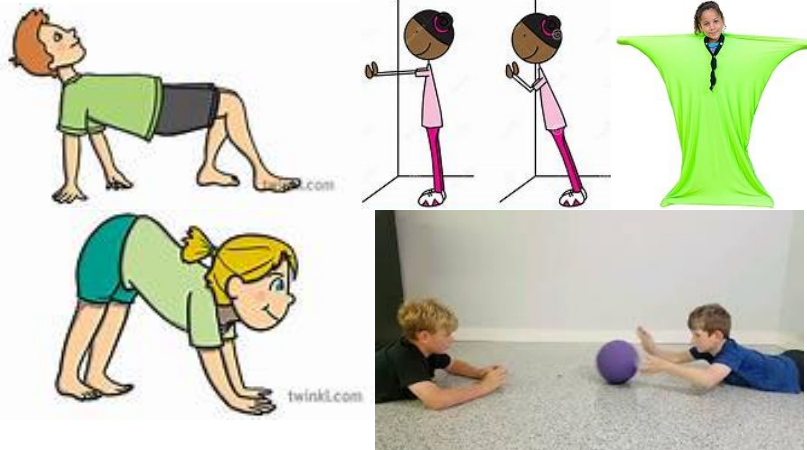
Moving through the school (hallways etc.):

- Move reams of paper from office to classroom/library/photocopy area
- Take a stack of books from classroom to library
- Carry a medicine ball through the hallway to another room, or as a circuit and back to the classroom.
- Move a chair inside/outside of classroom
- Push a cart down the hall
- Take the recycling to the front office, or collect recycling from each class
- Move the beanbag chair from support room to library
- Wall squats, wall presses in the hallway or against the outside wall before coming in from the playground.



In the sensory room:

- Carrying, rolling, pushing or pulling heavy items (e.g. ball, bean bag chair)
- Crawling through or on equipment
- Body sox or Lycra tunnel
- Yoga – create your own routine or follow a youtube video (try Cosmic Kids Yoga or Salamander Yoga)
- Animal walks (e.g. walk like a crab, bear, army crawl; animal walk ideas also on OT website)
- Clean up: lifting, pushing, and pulling equipment
- Log rolling on the ground: Keep feet and arms tight together while outstretched, then roll across to a target. Can have student hold beanbag between hands and feet to help cue them to keep arms/feet together.
- Tummy Ball Pass: Lie on floor, tummy down on the floor, EA/peer and student facing each other about 5-10 feet apart (further apart increases difficulty). Keeping tummy on floor, use shoulders/arms to absorb and pass ball. Can use weighed/medicine ball for increased difficulty. Go for 10 passes.
- Carry/Push weighted ball through tunnel (pop up or lycra)
- Use stretchy bands or hand grippers
- See bootcamp/circuit exercises below





HEAVY WORK FOR THE MOUTH

BACKGROUND AND CONSIDERATIONS

The resistive input obtained through heavy work activities is generally organizing and calming for the nervous system. Heavy work can be applied to the whole body, the hands or the mouth. Many people find oral heavy work very regulating. **Check with parents before trying these ideas.**

ACTIVITIES

- Sucking on a water bottle:
 - Make sure the student's water bottle has a suck-style top and not a pour spout.
 - Prompt him/her to take frequent drinks while sitting calmly.
 - This can be especially useful to calm the body quickly after a movement break.
 - Consider a thicker liquid for stronger sucking with a straw - smoothie or yogurt.
 - Also, fruit squeeze pouches provide another chance for sucking (soothing) input.
- Crunchy and chewy snacks:
 - In addition to being regulating, this type of input can also reduce oral sensitivity and provide an internal noise in the child's head to help reduce external auditory distractions.
 - Gum – big or multiple pieces work best. See list of rules on next page.
 - Fruit chew candies, licorice. These work even better if kept in the fridge.
 - Fruit roll-ups or the old fashioned fruit leather
 - Dried fruit pieces
 - Beef jerky
 - Pepperoni sticks
 - Bagels instead of bread
 - Granola bars, especially if kept in the fridge
 - Raw veggies – carrots, celery, cucumber, pepper, snap peas
 - Apples
 - Pretzels, popcorn, pork rinds and/or nacho chips to crunch
 - Nuts
 - Roasted chickpeas
- A chew tool:
 - For students who continue to seek oral input, even with lots of opportunities to suck water and have chewy/crunchy snacks, consider trying a dedicated chew tool. These offer a safe and accessible chew option to children who may be chewing their clothes or classroom items. Chew tools can be hand-held, or worn as a necklace, a bracelet or pinned to the student's shirt.
 - Some examples: <https://www.fdm.ca/en/chewelry>
 - Work with parents to find suitable options and monitor the effectiveness of each tool.
 - Ensure the student is always supervised when using a chew tool.

GUM RULES:

Review these rules with students using this strategy:

1. *The gum stays on the teacher's desk.*
2. *You put one/two pieces in your mouth and keep the paper wrapper in your pocket.*
3. *Gum stays in your mouth - no pulling it out with your fingers. You only chew gum in the classroom.*
4. *When you've had enough of the gum or it's time to leave the classroom, spit the gum onto the paper (from your pocket), wrap it up, put it in the garbage.*

It's not usually very effective to use standard chewing gum, unless you use multiple pieces in your mouth at the one time. The bigger pieces of bubble gum are usually more beneficial. If the student blows bubbles that becomes a distraction, add "no bubbles" to the list of rules.

Intermediate Class wide Self-Regulation Tools

BENEFITS of SELF-REGULATED LEARNERS:

- ✓ Reduced stress related to academics
- ✓ Strategies become habits, which make them easier to apply and use
- ✓ A sense of control over academic career
- ✓ Ability to tackle complex tasks without feeling overwhelmed

WHY TABATA?

- ✓ "You can see better fitness gains with 4 minutes of Tabata intervals than an hour of running..."
- ✓ "High-intensity intermittent training is a very potent means of increasing maximal oxygen uptake". Fox, E. *Sport Physiology*. Philadelphia: W.B. Saunders, 1979, pp. 226.

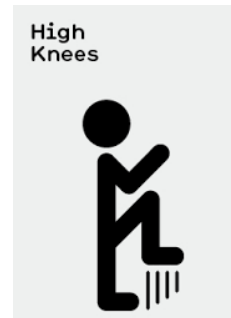


STEP 1: Select and Play one Tabata video from list below

Tabata Videos

1. Teacher Tabata #1: https://www.youtube.com/watch?v=cPn-15F_Rsc
2. Teacher Tabata #2: https://www.youtube.com/watch?v=yjrl_ttKkkw
3. Teacher Tabata #3: <https://www.youtube.com/watch?v=FsCNa9v9pcU>
4. Fortnite Tabata: <https://youtu.be/0kvYBApinGU>
5. Tabata Kids 5: <https://youtu.be/qhqmxxkOAH6w>

Want more Tabata videos? Visit Runk PE on you tube.



STEP 2: Play one 2-5 minute breathing video (first time play one how to video to support buy in)

How to Videos: Proper breathing technique. PLAY ONE

1. **Deep Breathing as a coping Skill/Athletes:**
<https://www.youtube.com/watch?v=rMj9ZNdRQEc&feature=youtu.be>
2. **Mind of the Athlete—Deep Breath:**
<https://www.youtube.com/watch?v=gcRARq2DVjE&feature=youtu.be>

Breathing Videos: (Choose one. Play for 2-5minutes)

1. How to Breathe Like a Navy SEAL:
<https://gearpatrol.com/2018/12/24/box-breathing-navy-seals/>
2. Triangle Breathing: <https://www.youtube.com/watch?v=G4-hVD9Tj6E>
3. Just Breathe: <https://www.youtube.com/watch?v=sebjvA54XBo>
4. 2 min Breathe Bubble: https://www.youtube.com/watch?v=9tOJZQhO_Uw
5. Box Breathing: <https://www.youtube.com/watch?v=cR8KSNe6VaM>



EXTRA: Teach kids how to take their own Heart Rate. Check out this link:

<https://www.cyh.com/HealthTopics/HealthTopicDetailsKids.aspx?p=335&np=285&id=1467>

Before



After



ISOMETRIC EXERCISES

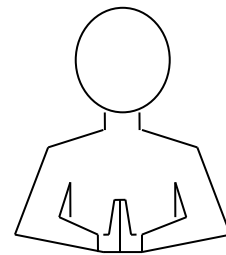
**Information adapted by Brooken Sayers, MS OTR/L*

The following exercises may be completed as a class or independently by individual students, with adult cues. These exercises offer deep pressure and heavy work to the joints and muscles, which can have a calming effect on the nervous system and facilitate improved focus. Incorporate deep breathing with each exercise (eg. have kids count out loud and then do a big exhalation when the posture is released). This will engage the core muscles and provide a lot of input throughout the arms and hands to physically and mentally prepare for desk work.

Choose one of these and repeat it 3x:

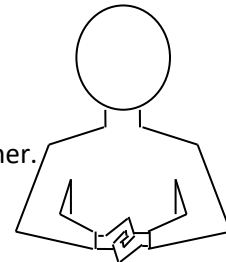
1. Squish the bug ~

Place palms together in front of chest with elbows bent and fingers pointed towards the ceiling. Press hands together firmly to the count of 5 to squish the bug inside your hands! Then open hands and blow the bug away.



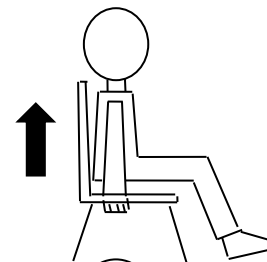
2. Train pulls ~

Bring hands together at chest level with elbows bent. Turn one hand towards the ceiling and the other towards the ground. Curl the fingers and lock them together like 2 train carriages linking together. Pull arms apart with steady force for a count of 5 while keeping fingers in the locked position. Then release and breathe out.



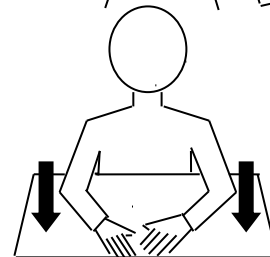
3. Chair push-ups ~

While seated in a classroom chair, grasp both sides of the chair and lift the body off the chair. Ensure students are using their arms to perform this lift without using their legs to assist. Complete one set of 3-5 push-ups. Hold body up for a count of 5.



4. Desk or wall push-ups ~

Place hands palm down on desktop while seated at desk. Do 10 push-ups, leaning body into the desk. OR, standing at the wall, position feet at arms-length from the wall and place palms against a wall at shoulder level. Do 10 push-ups, leaning body into the wall.



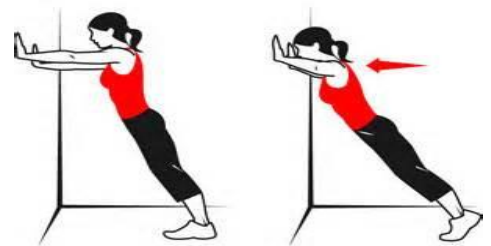
5. Shoulder shrugs ~

Shrug your shoulders, pull them up to your ears, hold for a count of 5, then let them drop with a sigh.

Boot Camp Circuit

Station 1

Wall push ups



Sit ups



Chair push ups



(10 times each)

Station 2

**Step up and down
with weighted ball
one foot at a time.(10
times each)**



Station 3

Stretchy bands

in standing and sitting(10 times each)



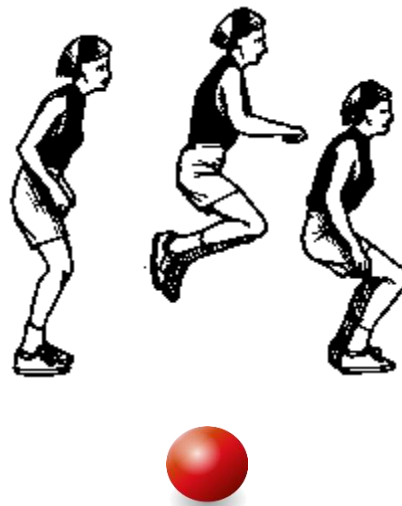
Station 4

Sit (squat) onto a yoga ball then stand up while holding the weighted ball (10 times)



Station 5

Place ball on floor. Stand with 2 feet in front of the ball and then jump over and land on 2 feet. Turn and repeat (10 times)



Station 6

Inch worm push up:

From standing place hands on ground, walk hands out to plank position, push up, walk hands back in and stand up.

(repeat 5-10 times)



Station 7

Half Burpees:

Start standing, crouch down to floor hands flat. Jump legs back out into extension. Then jump legs back to hands. (Repeat 5 times before standing up)

