



BACKPACK AWARENESS

A Collaboration between the PTSA & LWSD



Kirkland Middle School: Backpack Committee

- **Started Spring 2015**

- *Parent Concern*
- *Backpack Awareness Day*
- *Problem Scoped, Solutions Identified*

- **Presented to LWSD Spring 2016**

- *Why is this important?*
- *Gained Dr. Pierce's support*
 - AOTA: "A backpack should not weigh more than 10-15% of student's bodyweight"

Working in Partnership

- Committee meets with LWSD every other month
- Review goals and ideas
 - *Short term*
 - *Long term*
 - *Celebrate Successes*
 - KiMS has shed 1.5 pounds from '15 to '16



Successes to Date

- Kirk Elementary 5th graders were provided education on Backpack awareness by committee volunteers
- KiMS committee met with KiMS students and staff for ideas
- Education materials were made available by the committee to KiMS students, parents and staff
- KiMS created a new, lighter supply list for 2016-17
- 2016-17 student planner reduced in weight/size
- KiMS Math department de-spined workbooks, and used lighter plastic binders
- Backpack clean-outs were implemented at KiMS
- KiMS/LWSD added 2 water filling stations at school so students won't need to carry full bottles to school

- Teachers at KiMS provided more storage in some classrooms to reduce what students had to carry
- LWSD Communications Department initiated "Pack it light, check at night" campaign on social media and in district publications targeting parents, students and staff
- "Tips for Purchasing a Backpack" from AOTA was posted on LWSD Website and Social Media
- LWSD Principals were provided with article and resources to share in newsletters
- LWSD Communications Department provided poster masters for use at schools
- At the 2016 KiMS weigh-in, the average backpack was reduced to 14.6 pounds from 16.1 in 2015

Broadening the Scope District-Wide

- Share what we've learned
 - *Utilize district level support*
- Two Years of Work
 - *Ongoing/continuous effort*
 - *Improvement over time*
 - *Need more voices at the table*
 - *Backpack Awareness Day at your School*
 - Consistency in process

Is backpack weight a concern at your school?

Welcome: Backpack Awareness Day Workshop



- Tuesday, May 9th 10-11:30am
- Redmond Public Library -Conference Room, 15990 NE 85th St., Redmond

Backpack Awareness Day Toolkit: Basic Plan/Decision Principles

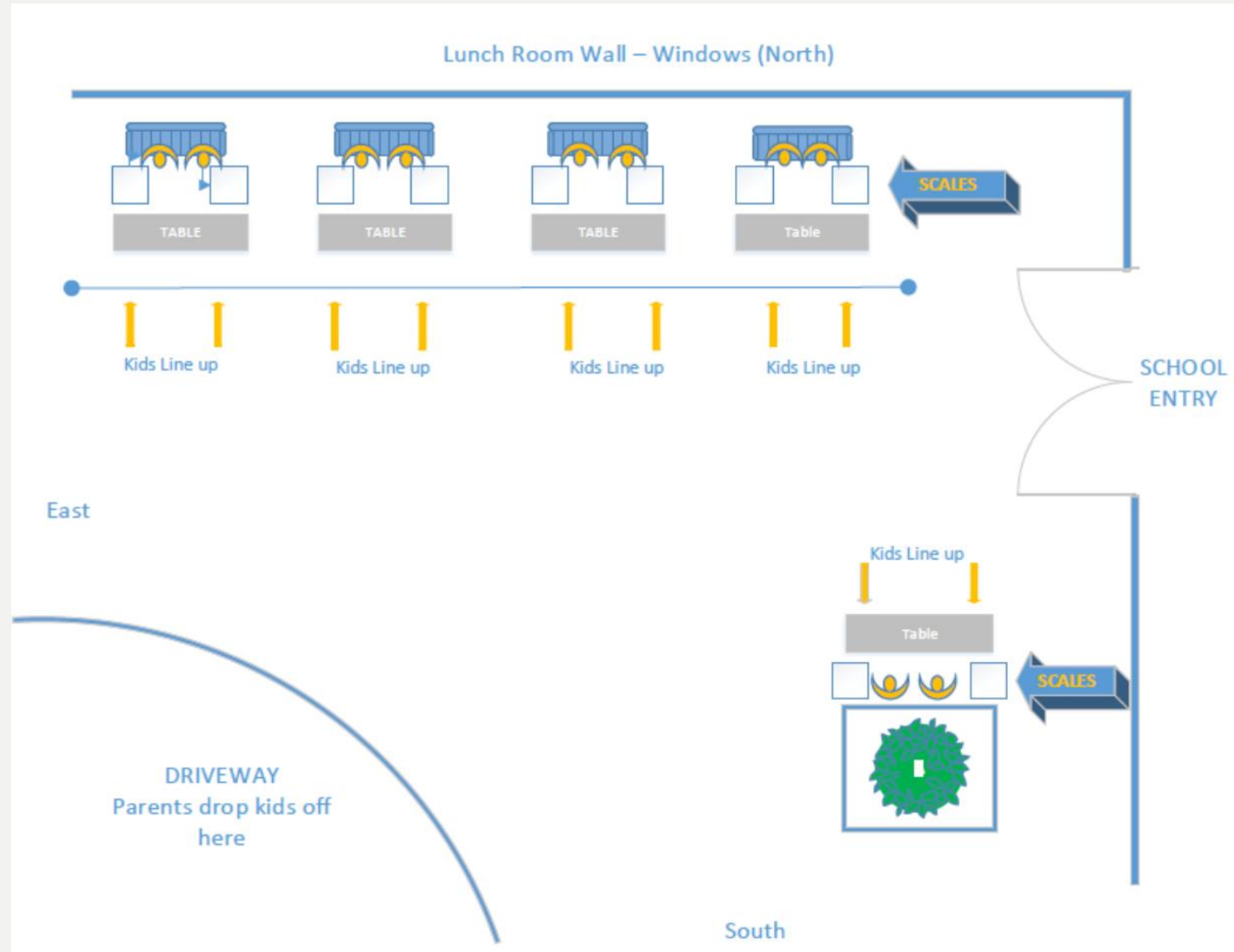
- Determine Event Date/Time/Location
- Gain approval from PTSA Board and Principal
- Assemble a planning committee
- Invite Community Partners
- Secure a Team of Volunteers
- Communicate and Promote Event
- Event Organization is important
- Analyze and Communicate Results
- Thank Volunteers and Community Participants



Day of Event: What Happens?

- Timing
- Location/Event Layout
- Volunteers
- Weighing Stations
- Data Collection
- Community Partnerships
- Extra Credit-raffles/prizes/lunchtime

Event Layout



Weigh Stations





Student Handout

National School Backpack Awareness Day

Wednesday, September (DATE/YEAR)

- Get your backpack weighed before school on (DATE)



- Discover if your backpack is an acceptable load for you to carry
- Learn how to select, pack and wear a backpack properly
- Ask the experts- (PT FIRM OR CHIRO NAME) will be in attendance
- Win PRIZES!
- Ask questions/join our committee: (EMAIL CONTACT)



Is your backpack's weight within the acceptable range?

BACKPACK (___ lb) / BODY WEIGHT (___ lb) x 100 = ___ %

The AOTA and APTA recommend backpack load be no more than 10-15% of a child's bodyweight

What Heavy Backpacks Are Doing To Kids' Bodies

About 5,000 children visit emergency rooms each year because of backpack-related injuries, and at least 14,000 kids are treated for them. While not every kid will go to the hospital because of heavy backpacks, overweight loads can cause neck, back and shoulder pain and more. Below, see what is so dangerous about kids carrying heavy backpacks — and what parents can do about it.

Forward Head Posture vs **Proper Posture**

Neck and Upper Back
Heavy backpacks create a forward trunk lean (rounding of upper back) which causes a forward head posture with extended neck, creating neck and shoulder pain and making it difficult for muscles and ligaments to hold the body up.

Shoulders
Shoulders aren't made to hang things on. When a heavy load is put on kids' shoulders, joints get tight, muscles tighten down, it alters bio-mechanics, and creates potential strain.

Hips
Hips can become sore if a child is bending forward to compensate for the backward pull of their backpack.

Lower Back
A change in posture by leaning forward to compensate for the weight of the backpack can result in lower and mid back pain and muscle tightness.

Knees
Knee pain is possible because of a change in walking pattern and body posture due to an overweight backpack.

Fit and Sizing
Material. Choose backpacks made for kids, which are made of more lightweight fabric than backpacks for adults.
Close to the body. The backpack should be close to the body with minimal space between the back and the pack itself.
Length. It should be the length of the torso and the bottom should be two inches below the waist.

Weight Distribution. Use backpacks with multiple compartments to help distribute the weight of contents. Pack the heavier things low and towards the back, closer to the body.
Ratio. Backpacks should be 10-15 percent of a kid's weight.

Extra Support
Use both shoulders. The backpack should always be worn on two shoulders so that there isn't too much stress on one side of the spine.
Waist strap. Kids should always use the waist strap (preferably a thick one) to help distribute the weight.

Extra Volunteers at the BMI Graph

	BACKPACK % OF BODY WEIGHT										BACKPACK % OF BODY WEIGHT										BACKPACK % OF BODY WEIGHT													
	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225
40	66.7%	61.5%	57.1%	53.3%	50.0%	47.1%	44.4%	42.1%	40.0%	38.1%	36.4%	34.8%	33.3%	32.0%	30.8%	29.6%	28.6%	27.6%	26.7%	25.8%	25.0%	24.2%	23.5%	22.9%	22.2%	21.6%	21.1%	20.5%	20.0%	19.5%	19.0%	18.6%	18.2%	17.8%
39	65.0%	60.0%	55.7%	52.0%	48.8%	45.9%	43.3%	41.1%	39.0%	37.1%	35.5%	33.9%	32.5%	31.2%	30.0%	28.9%	27.9%	26.9%	26.0%	25.2%	24.4%	23.6%	22.9%	22.3%	21.7%	21.1%	20.5%	20.0%	19.5%	19.0%	18.6%	18.1%	17.7%	17.3%
38	63.3%	58.5%	54.3%	50.7%	47.5%	44.7%	42.2%	40.0%	38.0%	36.2%	34.5%	33.0%	31.7%	30.4%	29.2%	28.1%	27.1%	26.2%	25.3%	24.5%	23.8%	23.0%	22.4%	21.7%	21.1%	20.5%	20.0%	19.5%	19.0%	18.5%	18.1%	17.7%	17.3%	16.9%
37	61.7%	56.9%	52.9%	49.3%	46.3%	43.5%	41.1%	38.9%	37.0%	35.2%	33.6%	32.2%	30.8%	29.6%	28.5%	27.4%	26.4%	25.5%	24.7%	23.9%	23.1%	22.4%	21.8%	21.1%	20.6%	20.0%	19.5%	19.0%	18.5%	18.0%	17.6%	17.2%	16.8%	16.4%
36	60.0%	55.4%	51.4%	48.0%	45.0%	42.4%	40.0%	37.9%	36.0%	34.3%	32.7%	31.3%	30.0%	28.8%	27.7%	26.7%	25.7%	24.8%	24.0%	23.2%	22.5%	21.8%	21.2%	20.6%	20.0%	19.5%	18.9%	18.5%	18.0%	17.6%	17.1%	16.7%	16.4%	16.0%
35	58.3%	53.8%	50.0%	46.7%	43.8%	41.2%	38.9%	36.8%	35.0%	33.3%	31.8%	30.4%	29.2%	28.0%	26.9%	25.9%	25.0%	24.1%	23.3%	22.6%	21.9%	21.2%	20.6%	20.0%	19.4%	18.9%	18.4%	17.9%	17.5%	17.1%	16.7%	16.3%	15.9%	15.6%
34	56.7%	52.3%	48.6%	45.3%	42.5%	40.0%	37.8%	35.8%	34.0%	32.4%	30.9%	29.6%	28.3%	27.2%	26.2%	25.2%	24.3%	23.4%	22.7%	21.9%	21.3%	20.6%	20.0%	19.4%	18.9%	18.4%	17.9%	17.4%	17.0%	16.6%	16.2%	15.8%	15.5%	15.1%
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32	53.3%	49.2%	45.7%	42.7%	40.0%	37.6%	35.6%	33.7%	32.0%	30.5%	29.1%	27.8%	26.7%	25.6%	24.6%	23.7%	22.9%	22.1%	21.3%	20.6%	20.0%	19.4%	18.8%	18.2%	17.7%	17.3%	16.8%	16.4%	16.0%	15.6%	15.2%	14.9%	14.5%	14.2%
31	51.7%	47.7%	44.3%	41.3%	38.8%	36.5%	34.4%	32.6%	31.0%	29.5%	28.2%	27.0%	25.8%	24.8%	23.8%	23.0%	22.1%	21.4%	20.7%	20.0%	19.4%	18.8%	18.2%	17.7%	17.2%	16.8%	16.3%	15.9%	15.5%	15.1%	14.8%	14.4%	14.1%	13.8%
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29	48.3%	44.6%	41.4%	38.7%	36.3%	34.1%	32.2%	30.5%	29.0%	27.6%	26.4%	25.2%	24.2%	23.2%	22.3%	21.5%	20.7%	20.0%	19.3%	18.7%	18.1%	17.6%	17.1%	16.6%	16.1%	15.7%	15.3%	14.9%	14.5%	14.1%	13.8%	13.5%	13.2%	12.9%
28	46.7%	43.1%	40.0%	37.3%	35.0%	32.9%	31.1%	29.5%	28.0%	26.7%	25.5%	24.3%	23.3%	22.4%	21.5%	20.7%	20.0%	19.3%	18.7%	18.1%	17.5%	17.0%	16.5%	16.0%	15.6%	15.1%	14.7%	14.4%	14.0%	13.7%	13.3%	13.0%	12.7%	12.4%
27	45.0%	41.5%	38.6%	36.0%	33.8%	31.8%	30.0%	28.4%	27.0%	25.7%	24.5%	23.5%	22.5%	21.6%	20.8%	20.0%	19.3%	18.6%	18.0%	17.4%	16.9%	16.4%	15.9%	15.4%	15.0%	14.6%	14.2%	13.8%	13.5%	13.2%	12.9%	12.6%	12.3%	12.0%
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15	25.0%	23.1%	21.4%	20.0%	18.8%	17.6%	16.7%	15.8%	15.0%	14.3%	13.6%	13.0%	12.5%	12.0%	11.5%	11.1%	10.7%	10.3%	10.0%	9.7%	9.4%	9.1%	8.8%	8.6%	8.3%	8.1%	7.9%	7.7%	7.5%	7.3%	7.1%	7.0%	6.8%	6.7%
14	23.3%	21.5%	20.0%	18.7%	17.5%	16.5%	15.6%	14.7%	14.0%	13.3%	12.7%	12.2%	11.7%	11.2%	10.8%	10.4%	10.0%	9.7%	9.3%	9.0%	8.8%	8.5%	8.2%	8.0%	7.8%	7.6%	7.4%	7.2%	7.0%	6.8%	6.7%	6.5%	6.4%	6.2%
13	21.7%	20.0%	18.6%	17.3%	16.3%	15.3%	14.4%	13.7%	13.0%	12.4%	11.8%	11.3%	10.8%	10.4%	10.0%	9.6%	9.3%	9.0%	8.7%	8.4%	8.1%	7.9%	7.6%	7.4%	7.2%	7.0%	6.8%	6.7%	6.5%	6.3%	6.2%	6.0%	5.9%	5.8%
12	20.0%	18.5%	17.1%	16.0%	15.0%	14.1%	13.3%	12.6%	12.0%	11.4%	10.9%	10.4%	10.0%	9.6%	9.2%	8.9%	8.6%	8.3%	8.0%	7.7%	7.5%	7.3%	7.1%	6.9%	6.7%	6.5%	6.3%	6.2%	6.0%	5.9%	5.7%	5.6%	5.5%	5.3%
11	18.3%	16.9%	15.7%	14.7%	13.8%	12.9%	12.2%	11.6%	11.0%	10.5%	10.0%	9.6%	9.2%	8.8%	8.5%	8.1%	7.9%	7.6%	7.3%	7.1%	6.9%	6.7%	6.5%	6.3%	6.1%	5.9%	5.8%	5.6%	5.5%	5.4%	5.2%	5.1%	5.0%	4.9%
10	16.7%	15.4%	14.3%	13.3%	12.5%	11.8%	11.1%	10.5%	10.0%	9.5%	9.1%	8.7%	8.3%	8.0%	7.7%	7.4%	7.1%	6.9%	6.7%	6.5%	6.3%	6.1%	5.9%	5.7%	5.6%	5.4%	5.3%	5.1%	5.0%	4.9%	4.8%	4.7%	4.5%	4.4%

Sticker Chart

Is your backpack in the **SAFE ZONE**?



Backpack % of your body weight:

RED ZONE Over 15% Whoa! Be sure to pack it right and wear it tight.			
YELLOW ZONE 12 - 15% Caution. Almost maxed out!			
GREEN ZONE Under 12% In the zone!			

6th grade

7th grade

8th grade

Kids Find Their “Zone”



Lunchtime Presentation- Make it Fun!



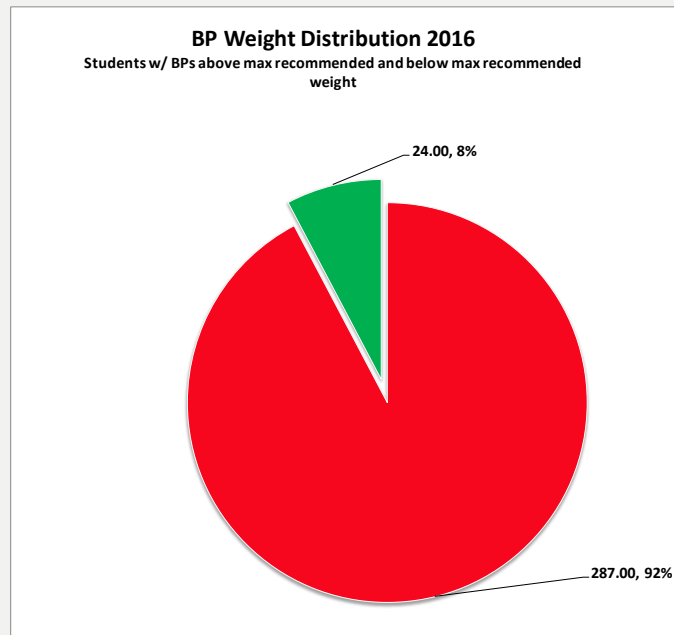
Post Event

- Data Analysis
 - *Spreadsheet w/formulas*
- Sharing what you've learned
 - *School admin, PTSA, families, LWSD, and the kids*
- Plan on event for next year to compare/gauge progress
- Create Next Steps for Your School
 - *Why are they heavy?*
 - *What can be changed at a school level?*
 - *How can we team towards common goals w/district support?*

Count up your reds and greens

Table 2	#
Number of students with backpacks exceeding maximum recommended BP weight	
Number of students with backpacks that are under the maximum recommended BP weight	

	#
Number of students with backpacks exceeding maximum recommended BP weight	287.00
Number of students with backpacks that are under the maximum recommended BP weight	24.00
	311.00



National School Backpack Awareness Day

(YOUR SCHOOL NAME)

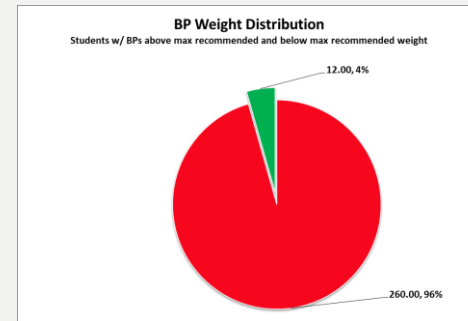
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Problem Statement: The goal is to learn if kids at (YOUR SCHOOL) are carrying backpacks that are too heavy for their frames during these fundamental years of growth and bone development. Professional recommendations (APTA, AOTA) are that a pack should weigh no more than 10-15% of bodyweight. Research has shown that the potential long term impact is neck, back and shoulder pain along with changes in posture that could make it difficult for muscles and ligaments to hold the body up properly.

Purpose of Event: On (DATE), (YOUR SCHOOL) hosted this event to educate kids on the best type of backpack to purchase and how to wear and pack their backpacks. Additionally, students had the option of having their backpacks weighed and data recorded. This was a first step toward quantifying the magnitude and prevalence of the heavy backpacks.

What We Learned: (INSERT YOUR DATA –NEEDS TO BE CUSTOMIZED)

- 48% of students participated in getting packs weighed on the morning of 9/16 (272 kids)
- Across 6-8th grades the average backpack weight was over **16 pounds**
- The % of bodyweight the pack consumes is greater in younger grades, b/c kids weights vary by roughly 20 pounds from 6-8th grade(based on CDC data), but even so...
- **96%** of the students that participated had backpacks that are OUTSIDE of the “Safe Zone”



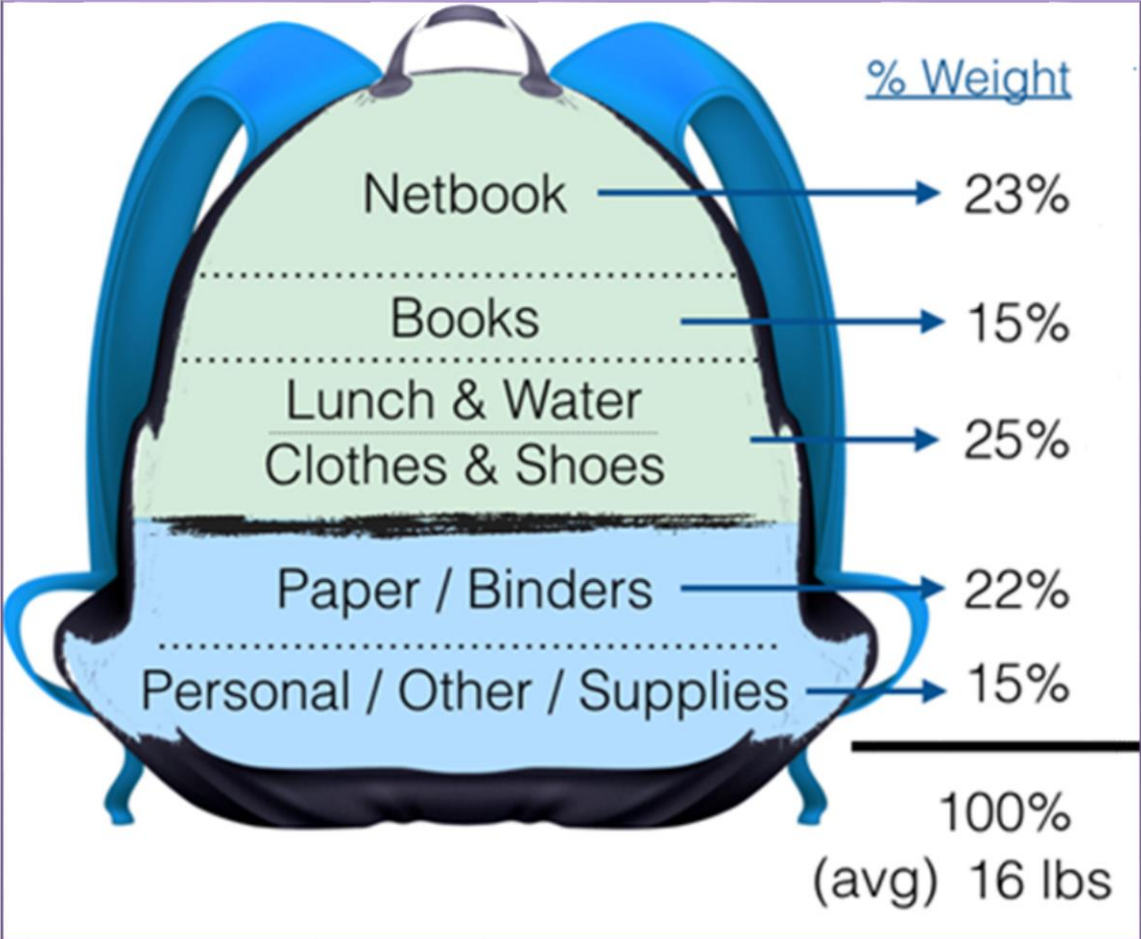
Females:

Grade	Avg. BP Weight	Avg. Fem. Weight	#measured	#pounds over 12.5%	%body Weight
6	16.11045	81.5	44	5.93	0.197674
7	16.12989	91.5	60	4.69	0.176283
8	16.05603	101	33	3.49	0.158971

The average female 6th grader is carrying almost 20% of her bodyweight on her back. That is equivalent to a 190 lb man carrying around 38 pounds. That's equal to 10 bricks, 5 gallons of water, or 6 reams of paper!

Next steps: The data is conclusive that a large percentage of our student population is carrying too much weight on their backs. The (SCHOOL) Backpack Committee, in partnership with (SCHOOL) leadership and district administration need to prioritize the importance of this safety issue, and explore viable options for lightening backpack weights and implement a solution(s) in a timely manner.

Are your backpacks too heavy? Why?



Questions & Answers

- All of this info and materials can be found:

<http://kirklandmiddleptsa.org/Page/Pta/Backpack>