

Letter To Parents

Measurement

&

Balancing Things

(Primary Grades)

Dear parents...

Over the next few weeks, we will be learning about balance and measurement. Listed below is a breakdown on how we will approach the subject. Please feel free to share any ideas on materials with us if you think they are appropriate. Thank you for assisting your child with assignments.

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Week #1

- **What does balance mean?**
 - How do we use measurement:
 - Introduction to the history of levers, etc.
 - Assignment: Please help your child construct a toy, which uses balancing principles.
- This is due next week _____.

Week #2

- **How can we make two things balance?**
 - Measuring weight and mass.
 - The history and use of metric measurement
 - Assignment Due: Create a balancing toy*
 - Assignment: construct your own balance scale using simple materials (e.g., coat hanger and clothes pegs; Plasticine, straw, pins, etc.)
- This is due next week _____.

Week #3

- **How can balance help us measure?**
- Why do we measure?
- Use of measurement vocabulary?
- Discuss various types of units with charting activity.
- Work in groups comparing and balancing objects.
- Balance scale assignment is due.

Week #4

- **Using standard measurement**
- How much do various objects weigh?
- Difference in types and uses of scales at home, grocery stores, doctor's office, truck weighing scales, etc.
- Chart everyone's weight and make comparisons; compare to other units of measurement
- Art Project: Make a balanced mobile: Please bring in several unusual objects to be incorporated into your mobile. Let's get creative! Let's have fun!

Teacher's Unit Plan
Measurement
 &
Balancing Things
 (Primary Grades)

Time	Class Activity	Universal Design &/or Parallel Participation Activity
Week 1	<ul style="list-style-type: none"> • Watch video: What is measurement? - name 2 things you learned from the video - draw something you saw in the video that has to do with measurement • What does balance mean? 	<ul style="list-style-type: none"> • Use switch & Powerlink to turn on the video. • use voice output to ask what 2 things did classmates learn from the video? • sponge paint a stencil drawing or abstract drawing of something about measurement from the video
	<ul style="list-style-type: none"> • Activity: Balance beam: balance books, bean bags, etc. 	<ul style="list-style-type: none"> • Activity: Balance beam: balance books, bean bags, etc.
	<ul style="list-style-type: none"> • Read Book: Balancing (MacDonald Starter Series) 	<ul style="list-style-type: none"> • Pose questions for peers using voice output throughout story as teacher reads to class • Review Book after it has been scanned as an accessible book by an older student. • Pose questions to small groups of peers about key points in the story at a listening centre.
	<ul style="list-style-type: none"> • Activity: <u>Science Experiment Station</u> - weigh 2 objects and record which one is heaviest (e.g., pencil, ruler, eraser, paper clip, scissors, chalk eraser, piece of chalk, crayon) - make a list of what you measured and what was heaviest 	<ul style="list-style-type: none"> • Same activity with hand-over-hand assistance and use choice making to answer which one looks heavier. - provide instructions to peers using voice output device
	<ul style="list-style-type: none"> • Math Quest Pages for measurement re: cms • Give guesses on the universal activity -> 	<ul style="list-style-type: none"> • Do a survey and ask classmates to guess the measurement for a several items re: length (cms) and record the results and see how close the class got to the actual answer
	<ul style="list-style-type: none"> • Balancing Toy Assignment: due next week - materials may include a coat hanger, clothes pegs, straws, pins, paper clips, clay, etc. 	<ul style="list-style-type: none"> • Make choices and use hand over hand assistance to create a balancing toy: what should we use? Which object might be heavier? What might be the same weight?
Week 2	<ul style="list-style-type: none"> • How can we make 2 things balance? • View video: Weight and Mass - name 2 things you learned from the video - draw something you saw in the video that has to do with weight and mass 	<ul style="list-style-type: none"> • Use switch & Powerlink to turn on the video.. • use voice output to ask what 2 things did classmates learn from the video? • sponge paint a stencil drawing or abstract drawing of something about weight and mass from the video
	<ul style="list-style-type: none"> • Math Quest Pages for measurement re: kms • Give guesses on the universal activity -> 	<ul style="list-style-type: none"> • Do a survey and ask classmates to guess the measurement for a several items re:

		weight (kms) and record the results and see how close the class got to the actual answer
	<ul style="list-style-type: none"> • Activity: <u>Science Experiment Station</u> - Set up a straw or stick hanging from a string in the middle - tie a string hanging down from each end of the straw or stick, so that you can tie an object onto each end - tie different things onto the strings to see if they balance - what happens when you move one string toward the centre? - draw what you saw in our "log" book 	<ul style="list-style-type: none"> • Science Experiment Station - participate with assistance in same activity as classmates - provide instructions to peers using voice output device 
	<ul style="list-style-type: none"> • Activity: classmates demonstrate their "balancing toy" that they created the week before. 	<ul style="list-style-type: none"> • Explanation is posted on the voice output device on how the student made the balancing toy.
	<ul style="list-style-type: none"> • Introduce the "Log" book for classmates to log in their experiments and observations and conclusions. In the gym, try exploring different movement activities (e.g., moving on 1 part versus 2 parts or 3 parts of your body; using lines as imaginary tight ropes, using balance beam or bench, etc.) 	<ul style="list-style-type: none"> • Experiment with movement in a wheelchair, standing frame, walker, etc.; experiment holding different objects on the wheelchair tray and moving over different terrains and record the results in a log. • Ask peers questions (using voice output device) as they are trying out different movements around the gym.
Week 3	<ul style="list-style-type: none"> • How can balance help us measure? • View video: Why do we measure? - name 2 things you learned from the video - draw something you saw in the video that tells us why we use measurement 	<ul style="list-style-type: none"> • Use switch & Powerlink to turn on the video. • use voice output to ask what 2 things did classmates learn from the video? • sponge paint a stencil drawing or abstract drawing of something about why we use measurement from the video and post on the bulletin board
	<ul style="list-style-type: none"> • Activity: Survey and make a chart to measure weight of various objects in different units; units of measurement could include - paper clips, beans, blocks, chips, etc. 	<ul style="list-style-type: none"> • Using a voice output device to survey guesses from classmates about weights of different objects; with hand over hand assistance make a chart to record the guesses in different; units of measurement could include - paper clips, beans, blocks, chips, etc.
	<ul style="list-style-type: none"> • Read book: Light and Heavy or similar book 	<ul style="list-style-type: none"> • Pose questions for peers using voice output throughout story as teacher reads to class • Review Book after it has been scanned as an accessible book by an older student. • Pose questions to small groups of peers about key points in the story at a listening centre.
	<ul style="list-style-type: none"> • Math Quest Pages for measurement re: liters • Give guesses on the universal activity -> 	<ul style="list-style-type: none"> • Pose questions for peers using voice output throughout story as teacher reads to class • Review Book after it has been scanned as an accessible book by an older student. • Pose questions to small groups of peers about key points in the story at a listening centre.
	<ul style="list-style-type: none"> Activity: <u>Science Experiment Station</u> - you need a coat hanger, 2 clothes pins, 	<ul style="list-style-type: none"> • Science Experiment Station - participate with assistance in same activity

INCLUSION OUTREACH

	<ul style="list-style-type: none"> objects to weigh and a log book to record - estimate which object might be heavier prior to weighing them - clip on various objects to either end of the hanger and note results on the log book 	<ul style="list-style-type: none"> as classmates - provide instructions to peers using voice output device
Week 4	<ul style="list-style-type: none"> • Using standard measurement • View video: How much does it weigh? - name 2 things you learned from the video - draw something you saw in the video that has to do with standard measurement 	<ul style="list-style-type: none"> • Use switch & Powerlink to turn on the video. • use voice output to ask what 2 things did classmates learn from the video? • sponge paint a stencil drawing or abstract drawing of something about standard measurement from the video and share with the principal
	<ul style="list-style-type: none"> • Activity: Estimate and then record everyone's weight in the classroom on a scale brought to school 	<ul style="list-style-type: none"> • Use voice output device to ask questions re: weight-guessing activity such as... - what do you think you weigh? - do you think you are lighter or heavier than the person before you? • Make a chart to record results from activity for the class to view
	<ul style="list-style-type: none"> • Discussion about different scales used at home, grocery, doctor's office, and truck station. • Look through magazines for examples of different scales, or where a scale might be used and make a collage. 	<ul style="list-style-type: none"> • Look through magazines for examples of different scales, or where a scale might be used and make a collage.
	<ul style="list-style-type: none"> • Activity: art - make a balanced mobile using interesting materials brought from home 	<ul style="list-style-type: none"> • Same activity with hand-over-hand assistance and choice making to select the items to be used in the mobile and which ones might be lighter or heavier
	<ul style="list-style-type: none"> • Math Quest pages or similar materials re: temperature 	<ul style="list-style-type: none"> • Check around the school and look for different methods of checking the temperature and how this is used (e.g., in the staffroom for cooking, outside thermometer, inside thermometers in classrooms, boiler room, etc.)
	<p>Activity: <u>Science Experiment Station</u></p> <ul style="list-style-type: none"> - you need log book, 2 sponges about the same size, paper clips, water, eyedropper, string - tie the sponges on the arms of the balance (make sure the sponges are balanced) - add paper clips to the arm if needed to make them balance & draw in log book - add drops of water to one of the sponges and draw what you see - observe sponges until the wet one is dry again - keep record of the time and what happened 	<ul style="list-style-type: none"> • Science Experiment Station - participate with assistance in same activity as classmates - provide instructions to peers using voice output device