

Classroom Supplies - All Modules

Below is a list of additional items necessary for the PLTW Launch program.

These readily available classroom items were omitted from the PLTW kits to help control costs and prevent excess/waste.

Item	Modules	Quantity
Pencils, standard #2	All	30
Markers, crayons, or colored pencils	All	30 sets
Cellophane tape	All	Varies
Masking tape	All	Varies
Scissors	All	30
Chart paper	All	Varies
Liquid glue or glue sticks	All	Varies

Classroom Supplies - PreK

Below is a list of additional items necessary for the PLTW Launch program. These items are not included in the equipment kits.

Life Science: Living and Nonliving Things	
Item	Quantity
Variety of classroom items to demonstrate living and nonliving things	Varies
Measurement tools, such as cubes or blocks	Varies
Old magazines or grocery ads	Varies
Items of various textures	Varies
Basket or container	1
Variety of common materials to create bird feeders that may include: - Recyclables, such as toilet paper/paper towel rolls, milk jugs, cardboard boxes, cans, water bottles - Natural items, such as pine cones, sticks - Sticky foods, such as peanut butter or other nut butters, flour and water paste, shortening, honey - Other items, such as bird seed, sugar-free cereal, stale bread, stale bagels	Varies
Optional: Food or drink items	Varies

Matter: Floating and Sinking	
Item	Quantity
Variety of items to demonstrate texture: - Soft - Smooth - Bumpy - Rough - Fuzzy	Varies
Items that dissolve, such as: - Sugar cubes - Sugar - Salt - Lemonade powder	Varies
Water	Varies
Clear plastic cups	Varies
Old magazines or grocery ads	Varies
Loaf pan or medium-sized container	1
Small items for freezing that might include: - Marble - Toy - Plastic cube	Varies

Various fabrics - water resistant and absorbent	Varies
Cooking oil	Varies
Food coloring	1
Clear jars or containers with lids	1 per group
Heavy whipping cream	5 cups
Measuring cup	1
Variety of common materials that will sink and float	Varies
Raisins	1-2 per student
Clear carbonated beverage	1 cup per student

Healthy Habits	
Item	Quantity
Heavy items for students to hold, such as a book, ball, or backpack	2-3 items
Small marshmallows	20 per student
Container	1
Small objects, such as a book, piece of paper, or block	2
Hand soap	1

Spatial Sense and Coding	
Item	Quantity
Dividers or folders	1-2 per student
Loose parts, such as blocks, buttons, or other craft supplies	Varies
Dry-erase marker	1 per group
Sticky notes	1 pad
Storage containers or plastic bag	Varies
Optional items: - Cardstock - Feathers (assorted colors) - Felt fabric sheets (assorted colors) - Foam sheets (assorted colors) - Googly eyes (assorted sizes) - Pom-poms (assorted colors and sizes)	Varies
Optional: Ribbon	1 spool

Classroom Supplies - Kindergarten

Below is a list of additional items necessary for the PLTW Launch program. These items are not included in the equipment kits.

Structure and Function: Exploring Design	
Item	Quantity
Variety of classroom items to demonstrate structure and function	Varies
Nonstandard forms of measurement such as blocks or connecting cubes	Varies
Coins or other small items to add weight to the hollow plastic eggs	Varies
Paper for painting, such as construction paper, butcher paper, or copy paper	Varies
Variety of household and classroom items, which may include: Pencils, sticks, pine cones, foam, yarn, floss, cotton balls, buttons, sponges	Varies
Hot glue gun and hot glue sticks (operated by an adult)	Varies

Pushes and Pulls	
Item	Quantity
Chairs	4
Heavy books	6
Empty containers, such as a box, bucket, or basket	6
Yardsticks	2
Connecting cubes	Varies
Ruler	1
Hole punch	1
Measuring tape or ruler	1
Old magazines	Varies
Shoebboxes	4
Large rocks	40
Ramps made from materials, such as cardboard or plywood	2
Thick books	4 per group
Various materials for students to choose from: - Shoebboxes - Copy paper boxes - Moving boxes	1 per group
Optional: Rolling scooters with handles	Varies
Optional: GoldieBlox™ and the Spinning Machine	1

Structure and Function: Human Body	
Item	Quantity
Resealable sandwich-sized plastic bags	1 box

Resealable gallon-sized plastic bags	1 box
Water	Varies

Animals and Algorithms	
Item	Quantity
Dry-erase marker	1 per group
Dry-erase eraser or a tissue	1 per group

Sunlight and Weather	
Item	Quantity
Measuring cup	1
Sand	8 qt
Soil	8 qt
Pea gravel	8 qt
Photographs of local seasons	1 set for the teacher / 1 set per group
Resealable plastic bags	1 box
Materials to use in the problem, such as: - Fabric scraps - Cardboard - Building blocks	Varies

Living Things: Needs and Impacts	
Item	Quantity
Old magazines	Varies
Items to represent stones and mud, such as leaves or balls	at least 20 items
Container or bag	6
Hundreds chart	1
Reusable materials, such as: - Paper - Cardboard boxes, bags, scraps, toilet paper/paper towel rolls - Plastic - Bottles, food containers, bags, milk jugs, bubble wrap - Foam - Cans - Fabric - Buttons	Varies

Classroom Supplies - 1st Grade

Below is a list of additional items necessary for the PLTW Launch program. These items are not included in the equipment kits.

Light and Sound	
Item	Quantity
Water	Varies
White paper	1 sheet per center
Small pieces of paper or small stickers	1 per student
Translucent, transparent, and opaque materials to test, such as paper, books, cardboard, wax paper, plastic wrap, aluminum foil	1 of each material per group

Light: Observing the Sun, Moon, and Stars	
Item	Quantity
Compass (digital or physical)	1 per group
Materials for playground construction, such as poster board, construction paper, modeling clay, or butcher paper for playground surface	Varies
Optional: Dime or similar diameter circle	1 per student
Optional: Drinking straws	1 per student
Optional: Clay	1/4 pound
Optional: Items for testing UV beads, such as a hair dryer or lamp	1 item

Animal Adaptations	
Item	Quantity
Assorted art supplies	Varies

Animated Storytelling	
Item	Quantity
No additional items needed for this module	

Designs Inspired by Nature	
Item	Quantity
Resealable plastic bags	1 box
Stapler	1
spray bottle	1
water	Varies

Classroom Supplies - 2nd Grade

Below is a list of additional items necessary for the PLTW Launch program. These items are not included in the equipment kits.

Materials Science: Properties of Matter	
Item	Quantity
Water	Varies
Small building materials, such as blocks, snap cubes, connecting blocks, modeling clay	8 sets
Common objects with different colors and textures, such as sand paper, fleece, salt, crepe paper, a squeaky pet toy	1 of each item
Water	Varies
Leaves	1 per pair of students
Freezer or cooler with ice	1
Common materials for building prototypes: - Cloth, such as old jeans, shirts, jackets, or socks - Plastic, such as bubble wrap, plastic wrap, or sandwich bags - Foam, such as packing peanuts or disposable coffee cups - Metal, such as aluminum foil - Other items, such as pipe cleaners, paper, cardboard	Varies
Construction materials to assemble prototypes, such as tape, glue, string, hot glue and glue gun if operated by an adult	Varies
Optional: Opaque bag to place objects inside	1 bag
Optional: Cup with room temperature water	8 cups
Optional: Paper towels	1 roll
Optional: Additional materials for testing, such as plastic sandwich bags or t-shirt material	1 of each item per group

Materials Science: Form and Function	
Item	Quantity
Flour, powdered sugar, or other fine powder	1/4 cup per class
Napkins or paper towels	1 package or roll
Small containers of water	1 per group
Items to represent seeds, such as lima beans, dried beans, or any variety of pea-sized seeds	Enough to test each group's prototype
Optional: Paper plates	15

The Changing Earth	
Item	Quantity
Sand	Varies
Plastic spoons or small plastic shovels	1 per group
Ice cubes	3 per group
Water	500 ml per group
Pebbles	Varies
Rocks	Varies
Ruler (Distance Learning)	1

Grids and Games	
Item	Quantity
Sticky notes	1 pad

Living Things: Diversity of Life	
Item	Quantity
Blank paper	1 per student
Potting soil	40 quarts
Water	Varies
Rulers with centimeters	1 per group
Assorted plants, flowers, and seeds	1 per group

Classroom Supplies - 3rd Grade

Below is a list of additional items necessary for the PLTW Launch program. These items are not included in the equipment kits.

Stability and Motion: Science of Flight	
Item	Quantity
Ruler	1 per group
Ball, such as soccer ball, basketball, or softball	1 per class
Boxes	1 per group
Balls	1 per group
Books	1 per group
Paper	1 per student

Stability and Motion: Forces and Interactions	
Item	Quantity
Right triangles made from paper	1 per group
Ramp, such as plywood, cardboard, or box lid	1 per class
Craft sticks	1 per group
Paper clips, steel	1 per group
Opaque divider, such as card stock, poster board, or construction paper	1 per group
Magnetic item (Distance Learning)	1 item
Nonmagnetic item (Distance Learning)	1 item

Variation of Traits	
Item	Quantity
Dry-erase board eraser	1 per group

Programming Patterns	
Item	Quantity
Sticky notes	1 pad

Weather: Factors and Hazards	
Item	Quantity
At least two different Earth materials, such as sand, topsoil, clay, sandy soil, or rocky soil	Varies
Water	Varies

Life Cycles and Survival	
Item	Quantity
Aquarium gravel	1 small bag

Environmental Changes	
Item	Quantity
Water	Varies
Chart paper or white butcher paper, to represent icebergs	35 pieces
Items to represent food, such as small pieces of colored paper, plastic blocks, or plastic game chips	minimum of 100 pieces
Yellow paper cut into strips or small squares	60 pieces
Scrap paper cut into strips or small squares	80 pieces
Paper cut into round pieces	20 circles

Classroom Supplies - 4th Grade

Below is a list of additional items necessary for the PLTW Launch program. These items are not included in the equipment kits.

Input/Output: Computer Systems	
Item	Quantity
No additional items needed for this module	

Input/Output: Human Brain	
Item	Quantity
Hot glue gun and hot glue sticks (operated by an adult)	1
Ruler	
Variety of sensory items, such as candy in wrappers, jacks, toy cars, or clay	Varies
Classroom objects, such as pencils, pens, erasers, or books	10-15

Waves and the Properties of Light	
Item	Quantity
Salt, rice, sand, or sugar	1 pinch per group
Container, such as a shallow baking dish	1
Water	Varies
Protractors	4
Boxes or baskets	2
Transparent materials, such as glass or clear plastic	at least 4
Translucent materials, such as frosted plastic, ice, or tissue paper	at least 4
Opaque materials, such as blocks or cardboard	at least 4
Games with rule books, such as board games or card games	Varies
Optional: Materials for the problem, such as: - Paper - Dice - Cards	Varies

Organisms: Structure and Function	
Item	Quantity
Sticky notes or scrap paper	Varies
Fine sand	1 lb
Box or plastic tub	2
Baby carrots	1-2 per student
Plastic sheeting or other protective cloth	Varies
Water	Varies
Rulers	3-4

Assorted books	3 per pair of students
Clean socks or plastic/paper bags	2 per pair of students
Blindfolds or clean handkerchiefs	1 per pair of students

Earth: Past, Present, and Future	
Item	Quantity
Water	Varies
White vinegar	Varies
Optional: Lemon juice	Varies

Earth: Human Impact and Natural Disasters	
Item	Quantity
Natural resources, such as: - Wood - Water - Plants - Rocks - Empty water bottle (to represent air)	Varies
Assorted materials to upcycle, such as: - Milk cartons - Plastic bottles - Tissue boxes - Fabric scraps	Varies

Energy Exploration	
Item	Quantity
Rubber band	2
Measuring tool, such as a ruler, measuring tape, or yardstick	8
Potatoes	at least 10
Pennies	10
Label	2
Additional materials for the windmill blades, such as: - Construction paper - Card stock - Cardboard	Varies
Additional materials for the design problem, such as: - Aluminum foil - Plastic wrap - Cardboard box	Varies
Optional: Ramp	1
Optional: Eggs, real for testing	1 per group plus extra
Optional: Eggs, plastic	For students with egg allergies

Optional: Materials for the vehicle restraint system, such as: <ul style="list-style-type: none">- Rubber bands- Bubble wrap- Pipe cleaners- Cotton balls	Varies
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Classroom Supplies - 5th Grade

Below is a list of additional items necessary for the PLTW Launch program. These items are not included in the equipment kits.

Robotics and Automation	
Item	Quantity
Materials to create the problem site, such as butcher paper, poster board, or construction paper	Varies

Robotics and Automation: Challenge	
Item	Quantity
Rulers	1 per group
Chair or box	1
Optional: Red construction paper	Varies

Infection: Detection	
Item	Quantity
No additional items needed for this module	

Infection: Modeling and Simulation	
Item	Quantity
Red construction paper	8 pieces
Blue construction paper	8 pieces

Matter: Properties and Reactions	
Item	Quantity
Water	Varies
Pure cane granulated sugar	1 lb
Iodized salt	26 oz
Rubbing alcohol	32 fl oz
All-purpose flour	5 lb
Liquid dish soap	1 bottle
Paper clips	8
Cooking oil	16 fl oz
Sand	Varies
Baking soda	1 lb
Plastic grocery bags	8
Paper grocery bags	8
Cloth grocery bags	8
Heavy book	2
Dry-erase markers	4

Poles, dowels, or brooms	2
Desks or chairs	4
Measurement tools, such as rulers, meter sticks, or yardsticks	8
Other materials to use as weights, such as milk jugs or jars	Varies

Ecosystems: Flow of Matter and Energy	
Item	Quantity
Permanent marker	1
Bowl	1
Tablespoon	1
Water	Varies
Bucket, bin, or hat	1
Optional: Materials for the photosynthesis models: - Colorful beads - Poster board	Varies
Optional: Grid chart paper	1 piece

Patterns in the Universe	
Item	Quantity
Grid chart paper	1 piece
Resealable plastic bags	1 box
Sticky notes	1 pad
Display boards, such as: - Poster board - Tri-fold board - Project board - Foam board	Varies

Earth's Water and Interconnected Systems	
Item	Quantity
Index cards	1 pack
Fast-growing seeds, such as: - Alfalfa - Radish - Chia - Lettuce - Basil - Marigold - Morning glory	2 packs
Potting soil	Varies
Water	Varies
Spray bottle	1
Salt	26 oz
Measuring cups	1

Empty gallon jugs or containers	2
Earth materials, such as sand or soil	Varies