

## Unit 8.5A Materials List

Consumable and Non-consumable kits are available for order through Kendall Hunt.  
To order or for more information, contact Sarah Zenner, [sczenner@kendallhunt.com](mailto:sczenner@kendallhunt.com).

Consider this a “Teacher’s Shopping List”. This list contains the physical materials that must be acquired to complete the unit’s lesson activities. There are multiple hands-on activities that students do throughout this unit.

Take some time to review the documents linked below and test your setups ahead of time to get a sense of optimum lab setups and expected results; variations in materials and timing can affect the results. **Note:** options are provided to switch group activities and whole-class demonstrations, which will affect the amounts of materials needed.

- Lesson 2: [8.5A\\_L02\\_Uncover1/2\\_Teacher\\_EarthSunSystem](#)
- Lesson 3: [8.5A\\_L03\\_Uncover1/2\\_Teacher\\_AtmFlow](#)
- Lesson 4: [8.5A\\_L04\\_Uncover1/2\\_Teacher\\_OceanFlow](#)
- Lesson 5: [8.5A\\_L05\\_Uncover\\_Teacher\\_EnergyTransfer](#)
- Lesson 6:
  - [8.5A\\_L06\\_Anchor\\_Teacher\\_Demo](#)
  - [8.5A\\_L06\\_Uncover\\_Teacher\\_Rainfall](#)

The materials are separated by consumables and non-consumables. Quantities per class listed are the maximum quantities you will need for one class assuming a class of 32 students. Some lesson plans call for items which are very likely to be available “at hand” either from the classroom, the school, or from home. Usually, these items don’t have to exactly match the list, but can be any of a group of items which suit the need. Such items are not listed here, but are identified in the lesson plans.

**A note on printed materials:** Handouts, student guides, other paper materials and electronic resources are not listed here. Please refer to individual lesson plans for the most up-to-date links for these items to determine an actual page count of printed materials needed for a particular lesson.

### Compared to the materials required for Version 1:

Removed:

- 8 - Globes/beach balls
- 24 - Strip thermometers
- 8 - Heat lamps (only 1 needed for V2)

Added:

- 1 - World globe
- 1 - Infrared thermometer
- 8 - Flashlights
- 1 - Bright 360° light on stand
- 16 - 1 L plastic tubs
- 1 - Small fan

Consumable Materials		
Description	Total Quantity Needed per class	Lesson
Colored pencils (e.g., red, blue, green)	32 each color	1, 2
Poster paper (or whiteboard)	8	1
Markers	8	1
	16	3
Graph paper (of the same scale)	24 sheets	2
Tape	1 roll	2, 3
Black construction paper, to cover the back side of the aquarium	3-4 sheets	3
Plastic wrap, to cover the top of the aquarium	1 roll	3
Incense stick (may substitute a smoking match)	1	3
Ice cubes	enough to fill a 250-500 mL beaker	3
	24 (minimum)	4
Dish soap	24 Tbsp	3
Paper plate, 9" diameter	8	3
Piece of thread, 12" length	8	3
Balloons (able to form a spherical-ish shape, about 8-12 inches in diameter)	16	3
3 oz. paper or plastic cups	3	4

Table salt	~26 tsp (~180 g)	4
Ice cube, made using colored water	8	4
Food colorings, different colors (e.g., red, yellow, and blue)	1 each color (groups share)	4
Sand, to fill container chosen for Lesson 5 (e.g., shallow tray, small cup, 250 mL beaker, or similar)	~1-1.6 L	5
Presentation materials - may vary depending on the format for student presentations (e.g., poster, slide deck, oral presentations with visuals, etc.)	various	7

Non-consumable Materials		
Description	Total Quantity Needed per class	Lesson
Whiteboard (or poster paper)	8	1
World Globe, 12-13" diameter recommended	1	2
Heat lamp	1	2, 5
Stand for heat lamp	1	2, 5
Infrared thermometer with a wide measurement range (e.g., for cooking, not human temperature)	1	2, 4
Flashlight with a focused beam	8 1	2 3, 6
Protractor	8	2
Ruler	8	2, 5
Bright light/lamp, no shade (able to radiate light in 360 degrees), at about 1-1.5 m height	1	2
Earth-kebab materials: <ul style="list-style-type: none"> <li>2-3" Earth stress ball, with equator marked (may substitute a styrofoam ball)</li> <li>12" bamboo skewer</li> </ul>	8 8	2

<ul style="list-style-type: none"> <li>Protractor</li> <li>Cardboard sheet, roughly 6" x 6"</li> </ul>	8 8	
Aquarium, 5.5 gallons or larger (16" L x 8" W x 10" H; may substitute a clear plastic tub) <ul style="list-style-type: none"> <li>alternative for Lesson 3: smoke box, if available</li> <li>for Lesson 4: having more containers available will speed up the transition between demonstrations</li> </ul>	1 1-4	3 4
Lighter or matches	1	3, 6
250-500 mL beaker	2	3
250 mL beaker	8 24 7	3, 4 4 4
Equipment to make hot water, such as a microwave, hot plate, or electric tea kettle	1	3
Plastic tub (that can hold about 1 L of water)	16	3
Stirring stick or spoon	8	3
Shallow dish	8	3
250 mL Erlenmeyer flask	8	3
Scissors	8	3
Safety glasses	32	3-5
[Optional] Set of simple gears	1	3
Wide, clear "smoothie" straw (~10 mm diameter)	8	4
Waste container (~250 mL)	8	4
Small fan or blow dryer (or student with a straw, blowing constantly)	1	4
Water-friendly objects to create ocean bottom topography, islands, such as cups, mugs, blocks, rocks	Various	4
[Optional] "Sit and spin" toy or Lazy Susan	1	4

Container (e.g., shallow tray, small cup, 250 mL beaker, or similar)	16	5
Thermometer	16	5
Supports to balance thermometers in an easy-to-read position, if needed (see Lesson 5 teacher guide linked above for details)	16	5
Timer (stopwatch, clock, or may conduct timing as a class)	8	5
Clear glass jar (larger the better; e.g., a pickle jar or 1000 mL+ beaker)	1	6
Ice pack (may substitute ice cubes in a pie tin)	1	6
Containers of liquid, ideally colored liquid: 1 - <u>COLD</u> (with ice or from a refrigerator so it is significantly cooler than the classroom air temperature) 1 - <u>ROOM TEMPERATURE</u> (same volume as above)	2	6