

WEEK #	LAB #	LAB NAME	COMMON ITEMS (can be bought anywhere)	MATERIALS YOU NEED TO PURCHASE OR BORROW-HST (Home science tools) or	Prices/Links
1	1	M&M Lab	M&M's Plain 3.1 oz bag, graph paper, colored pencils, ruler	n/a	

2	2	The Foucault Pendulum	camera tripod or self built tripod		
			turntable (lazy Susan, swivel stool, record player, turntable - even a wheel on it's side)		
			sewing thread or fishing line	50 g hooked laboratory mass or large fishing weight (sinker) \$5.46	https://www.amazon.com/Sinking-Angling-Fishing-Accessories-Weights/dp/B08F5C5XC4/ref=sr_1_9?dchild=1&keywords=fishing-weight
			50 g mass with a hole or hook to tie thread onto (a fishing weight, or heavy machine nut is fine)		

3	3	Curved Lenses and Mirrors	candle	ONLINE: If you want to buy this kit it is \$31 (optional) If not, you do not need to purchase other	https://www.homesciencetools.com/product/optic-bench-kit/
		all of these are optional	matches		
		will demo lab since this is an expensive one	white card stock - heavy white paper or white board		
			meter stick (\$2.33) or metric tape measure		https://www.amazon.com/School-Smart-Wooden-Meter-

4	4	Constructing and Using a Constellation Finder	scissors		
			split tack fastener (brad/paper fastener that has two metal sides that fold out)		
			stapler		
			scotch tape- 4 inches		
			3 sheets construction paper 23 cm x 30 cm or 10 in x 12 in		
			white glue or glue stick		

5	5	Distance to the Sun	calculator	3 fingered or pronged adjustable flask clamp \$9.78	https://www.amazon.com/EIS-CO-CH0688-Retort-Coated-Prongs/dp/B00AWS3QV0/ref=pd_day0_328_1/138-8359539-8560414?encoding=UTF8&pd_rd_i=B00AWS3QV0&pd_rd_r=7947358f-0de3-46df-98a6-ea4cbf49b5fb&pd_rd_w=lb3ua&pd_rd_wg=uNLqj&pf_rd_p=92ee6eda-fccf-47b6-ba0e-
			straight pin	lab support stand \$12.99	https://www.amazon.com/Unit-ed-Scientific-SSB6X9-Support-Length/dp/B00ES3SRUA/ref=pd_day0_328_4/138-8359539-8560414?encoding=UTF8&pd_rd_i=B00ES3SRUA&pd_rd_r=45c489a4-ee39-4edd-80b1-6f603faed9ed&pd_rd_w=1DrJ&pd_rd_wg=XsoNI&pf_rd_p=92ee6eda-fccf-47b6-ba0e-
			glue stick or tape if you must		
			1 mm ruled graph paper, 10 cm x 10 cm-1 sheet		
			10 cm x 10 cm pieces of cardboard-2		
			metric ruler		

5A Structure of the Sun (SA 51) HOMEWORK SHEET ONLY IN LAB BOOK

6	6	Planet Poster	1 foam or heavy poster board	
			pictures of the planet you choose to present on your board, pictures and information about your planet, scissors, glue stick, optional: decorations, stickers, etc.	

7	7	Planetary Sizes	cardboard sheet (8.5 x 11 in)	
			thumbtack, sharp pencil, scissors, tape, colored pencils	

8	8	Halley's Comet	calculator	
			ruler	
			graph paper (1/4 in. ruled 8.5 x 11in)	

9	9	The Moon's	index cards-12		
			protractor (chalkboard style)	0.77	https://www.amazon.com/Sparco-Plastic-Protractor-6-Inch-SPR01490/dp/B009Z0QIRA/ref=sr_1_4?dchild=1&keywords=protractor&qid=1597352551&
			volleyball or similar sized ball		
			light source		
			masking tape		
			Meterstick or measuring tape with meters	\$3.99	https://www.amazon.com/Wescott-10431-Wooden-Meter-Stick/dp/B000J0ARWW/ref=sr_1_8?dchild=1&keywords=met

10	10	Bottle Rocket Construction	2 2-liter soda bottles (cannot be Shasta or like it)	ONLINE - Can come launch rockets with us next week OUTSIDE	
			strong glue-NOT HOT GLUE		https://www.amazon.com/gp/offer-listing/B00E8N6R02/ref=dp_ol
			duct or packing tape		
			thick cardboard, foam board, balsa wood etc for fins		
			weight for nose: clay, magnet, heavy nut, etc		
			paint, construction paper, wrapping paper for decorating		
			plastic bag if making parachute		

11	11	Bottle Rocket Launch	do at home if you buy a launcher (\$40) or meet with class to launch in campus parking lot		https://www.amazon.com/Aquapod-Bottle-Launcher-Launch-Bottles/dp/B003Y5DOJC/ref=asc_df_B003Y5DOJC/?tag=hyprod-20&linkCode=df0&hvadid=198068753909&hvpos=&hvnetw=g&hvrnd=129899589710446324&hvpon=&hvptwo=&hvq
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12	12	Forces and Balloon Rockets	calculator		
			stopwatch (phone)		
			large drinking straw		
			tape measure (25-30 foot is best)		
			masking tape		
			balloons (3) - 9 or 12"		

			fishing line - 10 meters/33 feet	
			2 paper clips of same size	
13	13	The Effect of Temperature on the Volume of Air in a Balloon	round balloon - at least 5 cm diameter when inflated	
			1 L beaker/bowl or bucket 1/2 filled with very warm but not boiling water	
			1 L beaker/bowl or bucket 1/2 filled with ice water	
			cloth tape measure (sewing kind) or string and ruler	
			calculator	

14	14	Adiabatic Cooling vs. Hot/Cold Air	Infrared thermometer (try to borrow or avail at Home Depot)	\$25.95	https://www.homedepot.com/p/General-Tools-Mini-Infrared-Thermometer-IRT205/303305337?mtc=Shopping-B-F_D25T-G-D25T-25_1_HAND_TOOLS-Multi-NA-Feed-LIA-NA-NA-HandTools_LIA&cm_mmc=Shopping-B-F_D25T-G-D25T-25_1_HAND_TOOLS-Multi-NA-Feed-LIA-NA-NA-
			Compressed air duster (available at office supply stores, Walmart, or Amazon.	\$8.99	https://www.amazon.com/Blow-Off-Duster-Canned-10oz/dp/B08FRR39XQ/ref=sr_1_17_sspa?dchild=1&keywords=compressed+air+duster&qid=1597353560&sr=8-17-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGmaWVvPUEyM0dBRUICQ1FCMU1aJmVuY3J5cHRIZEIkPUEwODg3MTQ3VVhRREZBWTEzMThOJmVuY3J5cHRIZEFkSWQ9QTA0
15	15	Interpret a Weather Map	ruler		
			Maybe a magnifying glass		

16	16	How Thermometers Work	glass jar or bottle with a water tight lid, drill or a hammer and a large nail, some silly putty, plumber's chalk or chewing gum, drinking straw 8-10" long, food coloring, ice cold water and hot water		
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17	17	The Radiocarbon Method	ruler		
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18	18	Prop of Minerals Part 1	copper penny, steel knife, glass plate, thread, glass or clear plastic cup	Rocks and Minerals Kit	https://www.homesciencetools.com/product/rocks-minerals-sample-set/?refSrc=11382&nosto=nos https://www.scalesoutlet.com/tree-ms-600-pocket-scale-600-g-x-0-1-g/?sku=MS%20600&utm_source=google&utm_medium=cpc&adpos=&scid=scplp2771&scintid=2771&utm_term=&utm_campaign=SC++Shopping++General&utm_source=adwords&utm_medium=ppc&hsa_acc=8530883976&hsa_cam=1724215889&hsa_grp=67449705317&hsa_ad=336415905497&hsa_src=g&hsa_tgt=pla-
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19	19	Prop of Minerals Part 2	same as above for Week 18	Balance	same as above for Week 18
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20	20	Prop of Rocks Part 1	Same as week 18 + Vinegar	Clear glass or plastic cup and Rock and Mineral kit from week	
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21	21	Prop of Rocks Part 2	same as week 20	Rocks and Minerals kit from Week 18	
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22	22	Making a model and relief map	modeling clay (waterproof; Rose Art), deep dishpan/plastic container, metric ruler, water pitcher, water, pencil/clay tool		
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23	23	Using a Topo Map	ruler, string, paper		
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24	24	Base Isolation	wooden blocks or sugar cubes, base isolators (can make at home), stopwatch	We have base isolators in class. You can build one at home. Watch this link to learn how. https://www.youtube.com/watch?v=eks42DeybMM	
25	25	Lava Layering	5-4 ounce paper cups (1 cut to a 2.5 cm height), cookie sheet or tray, tape, baking soda, Meas. cups and spoons, vinegar, food coloring (4 colors), playdough or clay rolled into (matching food color) balls, gloves (optional)		
26	26	Mineral Weathering	plastic jar with lid, water (300mL/10oz), salt pieces (for water softener system), balance, timer, paper towels		
27	27	Characterizing soils	sand, vermiculite, peat moss, potting soil and wood chips; 100ml graduated cylinder, 500ml bottle (can use a cut off 2 liter soda bottle), pH strips, balance, 6 film canisters, funnel, coffee filters (to fit in funnel)	film canisters from HST \$1.95 each	https://www.homesciencetools.com/search?search_query=film+canisters
28	28	Examining Density Currents	4-250mL glass bottles or baby food jars, table salt, tap water (room temp, cold, and warm), food coloring, 2 index cards		
29	29	Science Fair Presentations			
30	30	Science Fair Presentations/ Class Party			REV. 08/23