



"Enjoying God's World of Nature"

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23900 – Atomic Age Laboratory Kit

Designed to use with the text *Science in the Atomic Age*, by Dr. Jay Wile

Things You Need To Know.

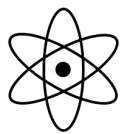
Enclosed is a *Quick Reference Chart* where all items from this kit are listed alphabetically and include the quantity, the bag number where the item is found, as well as the chapter number where the item will be used.

Following the *Quick Reference Chart*, you'll find *Supplies Organized by Chapter*.

There are 2 categories: **Lab. Kit** and **You Provide**

1. **Lab Kit** refers to the supplies in this household laboratory supplies set, custom organized for use with *Science in the Atomic Age* by Dr. Jay Wile. Items within the kit are organized and bagged according to common household categories. The number to the right of the item, on this chapter-by-chapter list, corresponds to the bag number where the item is located within the kit.

2. **You Provide**. Every effort has been made to create a complete kit, however there are some items that are not practical to include. You will find the items, which you will need to provide, listed in this category.



Many items in your kit will be used for several experiments.

Once you have completed an experiment, return reusable items to their original bag. This will maintain the organization of the kit throughout the course. Items labeled **LIB** are too big for the bags. They are found loose in the box (LIB)

General Safety Rules

- Before you do any experiment, read these instructions and the instructions for that experiment completely.
- Always recap each bottle when you are through with it, and keep all bottles and other materials away from younger children and pets.
- Handle chemicals with care. Observe all Caution notices. In the event of misuse (ingestion, inhalation, skin contact) immediately contact the United States National Poison Control Hotline @ 800-222-1222.
- A list of materials precedes each experiment. Some experiments require the use of common household items and materials. Common household chemicals not supplied in this kit can be purchased at local stores.
- Avoid contact between any chemical and your skin. Never rub your eyes or put your fingers in your mouth after handling a chemical. Always wash your hands immediately with soap and warm water after working with any chemical.
- Before you begin any activity, roll up your sleeves, put on an apron or smock, or other protective clothing. Tie long hair back from your face so it doesn't block your view or get caught in any equipment. Also, cover your work area with newspaper or a plastic sheet. Avoid splashing chemicals on wood surfaces, vinyl flooring, carpet, etc. Keep chemicals away from food areas.
- Always clean your equipment and work area after each activity. Clean your lab equipment, such as pipettes and scoops, with warm, sudsy water. It's okay if a small amount of liquid or solid waste goes down the drain, but you should not dispose of waste material by flushing it. After your equipment is clean, be sure to wash the sink with lots of water. Be careful not to use a kitchen towel for clean up. Use a rag or paper towels that can be disposed of.

*This kit is designed for use with the “Science in the Atomic Age” textbook.
Instructions for the experiments are found in the student textbook.*

Nature’s Workshop Plus! Inc., assumes no liability for any damage or injury incurred through accidental or intentional misuse or abuse of any of the chemicals or other products contained in this kit. All experiments should be performed under adult supervision exactly as outlined in the textbook “Science in the Atomic Age”, by Dr. Jay Wile

Quick Reference Chart of items contained in this kit

Item Number	Item Name	Quantity	Bag #	Used in Chapter
40236-3ft	Aluminum foil, 3 ft.	1	3	4, 8
40272	Antacid Tablets, 2 pk. (blue)	1	5	13
40821-2	Antacid Tablets, 2 pk. (white)	1	5	9
40262-1/2C	Baking Soda, 1/2 Cup	1	2	3, 4, 12, 13
22564	Ball, foam baseball	1	7	14
40220-lg	Balloon, large	2	6	2, 9
40220-sm	Balloons, small	3	6	12
40820	Battery, 9-volt	1	6	3
23924	Bouillon, beef	1	2	7
40327	Brown Paper Bag	1	4	8
22567	Candle, taper, 5 in.	1	6	3
40738	Candle, tealight	1	6	5, 16
40772	Candle, votive	1	6	4
40282	Cardboard, chpboard	2	1	11
40422	Clay Dough	2	7	3, 10
40744	Coffee Filter	1	3	13
40423	Colored Pencils, 12 pk.	1	1	16
40475-1	Construction Paper, black	1	1	10
40241-16oz.	Cooking Oil, 16 oz. bottle	1	2	1, 2, 4, 5, 13
40721-120ml	Corn Syrup, 4 oz.	1	2	5
40825-box	Cornstarch, box	1	2	6, 10
40335	Cotton Swab	1	5	7
40343	Die	1	6	10
40264-2	Dish Soap, 1/4 Cup	1	3	13
46210	Dominoes, whole pk.	1	7	9
23921-1	Dried Beans, 1 Cup	1	2	15
50418	Eyedroppers, 3 pk.	1	5	4, 7
40274	Film Canisters	2	4	4
40237-1/2C	Flour, 1/2 Cup	1	2	5, 10
40263-green	Food coloring, green	1	2	6
50707	Funnel	1	3	3, 13, 16
41020	Gelatin, Unflavored	1	2	7
40348	Gloves, non-latex, 2 pair pk.	1	5	7
40348-RG	Gloves, rubber, cleaning	1	3	9, 16
40249	Golfball	1	7	2
41026	Graph Paper	1	1	15
40468	Honey, bag of 9 packets	1	2	2

Item Number	Item Name	Quantity	Bag #	Used in Chapter
41223	Hydrogren Peroxide, 16 oz.	1	5	8, 13, 16
40341-18	Index Cards, 18 pk.	1	1	15
50699	Iodine	1	5	5, 6, 7
40732-120ml	Isopropyl Alcohol, 1/2 Cup	1	5	8
40732-10ml	Isopropyl Alcohol, 10ml	1	5	5
40275	Jar, glass, 8 oz.	1	3	3
23922	M&M Candies, samll packet	1	2	1
40224-1	Marker, black	1	1	5, 14, 15
41029-2	Marshmallows, 2 pk.	1	2	3
41122	Matches	1	3	2, 3, 4, 5, 16
22550-1	Measuring Cups	1	3	used throughout
22551	Measuring Spoons	1	3	used throughout
40555-2	Modeling Clay, single stick	1	7	12
40824-1	Olive Oil, 10 ml	1	2	4
40530-5	Paper clip, 5 pk.	1	1	10, 11
40525	Paper Cup, 7 oz. white lined	2	4	12
40450-1	Paper Towel	12	4	3, 4, 6, 8, 9, 13
40421	Pen	1	1	used throughout
40239-S	Pencil, sharpened	1	1	11, 14
40239	Pencils, unsharpened	2	1	5
40730	Petroleum Jelly	1	5	9
40277	Plastic Bag, 6x6"	2	4	6, 12
40281-1	Plastic Bag, 6x9"	4	4	5
40420	Plastic Cup, 12 oz.	1	4	3
40551-cap	Plastic lids, small	2	4	9
40258	Plastic Wrap	1	LIB	7, 8, 12, 14
40322	Plate, plastic, 6 in.	4	4	4
46135-1/2C	Potting soil, 1/2 Cup	1	7	13
40840-6	Rocks, large, 6 pk.	1	7	8
40245-Lg	Rubber Band, thick	1	1	12
40245-3x1/16	Rubber Band, thin	1	1	12
40333	Ruler, centimeter	1	1	10, 11
40240	Salt, 2 TB	1	2	3, 4, 5
40221-Lg	Scissors, large	1	1	8, 9, 11, 12, 13, 15
40247	Skewers, bamboo	3	3	9
40449-2	Spoons, plastic, 2 pk.	1	4	5
40533	Stopwatch	1	7	11
22556	Straw	1	4	6
23550	Straws, bendable, 2 pk.	1	4	12
40544-10	String, 10 ft.	1	6	2, 9, 11
40266-6	Sugar, 2 TB	1	2	4, 5, 7
40235	Tape	1	1	9, 10, 11
40447	Tea Bag, black tea	2	2	13
40223	Thread	1	6	11
40222-5	Thumbtacks, 5 pack	1	1	3, 11
40261-32	Vinegar, qt.	1	LIB	3, 5, 8, 9, 12, 13
40233-1	White Paper	7	1	6, 7, 14, 15
40735-2TB	Yeast, 2TB	1	2	5, 16

Supplies Organized by Chapter

Supplies Needed - Chapter 1

Lab. Set:

M&M Candies	2
Cooking Oil	2

You Provide:

Fork
Glasses, small, 2
Notebook
Water

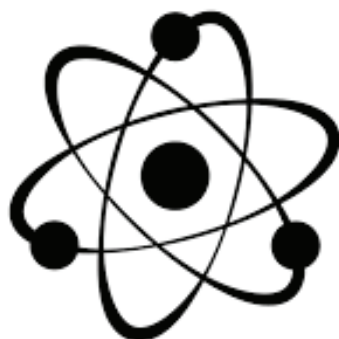
Supplies Needed - Chapter 2

Lab Set:

Balloon, large	6
Cooking Oil	2
Golfball	7
Honey Packets	2
Matches	3
Plastic Bag, 6x9"	4
String	6

You Provide:

Clean, dry hair
Coin
Glass, tall
Grape, optional
Ice
Soda can, empty
Water



Supplies Needed - Chapter 3

Lab. Set:

Baking Soda	2
Battery, 9Volt	6
Candle, taper, 5in.	6
Clay Dough	7
Funnel	3
Jar	3
Marshmallows	2
Matches	3
Measuring Cups	3
Measuring Spoons	3
Paper Towels	4
Plastic Cup	4
Salt	2
Thumbtacks	1
Vinegar	LIB

You Provide:

Bowls, 2
Coins, pennies and nickles
Microwave Oven
Water

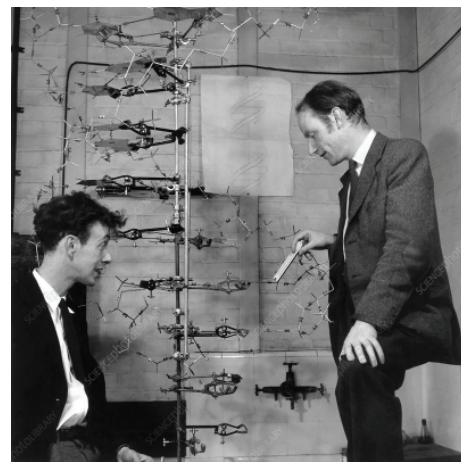
Supplies Needed - Chapter 4

Lab. Set:

Aluminum Foil	3
Baking Soda	2
Candle, votive	6
Cooking Oil	2
Eyedropper	5
Film Canisters	4
Matches	3
Olive Oil, 10ml	2
Paper Towels	4
Plastic Plates	4
Salt	2
Sugar	2

You Provide:

Freezer
Glasses, small, 4
Pennies, 2
Sink
Water



Watson and Crick
with DNA model

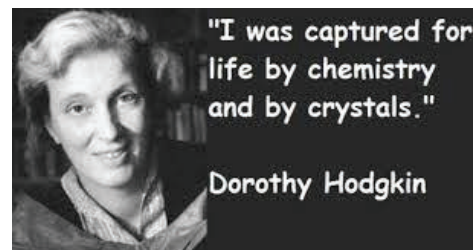
Supplies Needed - Chapter 5

Lab. Set:

Black Marker	1
Candle, tealight	6
Cooking Oil	2
Corn Syrup	2
Flour	2
Iodine	5
Matches	3
Measuring Cups	3
Measuring Spoons	3
Pencils, unsharpened	1
Plastic Bags, 6x9"	4
Plastic Spoons	4
Rubbing Alcohol	5
Salt	2
Sugar	2
Vinegar	LIB
Yeast	2

You Provide:

Butter, 1/2 stick
Egg, 1
Glasses, small, 3
Pan
Water



Dorothy Hodgkin

Cells

- Lime green chloroplasts
- Structured cell walls
- Mighty mitochondria
- Food filled vacuoles
- Slimy cytoplasm
- Square plants
- Round animals
- Foundation of all living things.



Supplies Needed - Chapter 6

Lab. Set:

Corn Starch	2
Food Coloring	2
Iodine	5
Measuring Cups	3
Measuring Spoons	3
Paper Towels	4
Plastic Bag, 6x6"	4
Straw, (not bendable)	4
White Paper	1

You Provide:

- Bread, 2 slices
- Cup
- Dinner Plates, 2
- Distilled Water
- Glasses, small, 2
- Knife
- Red Cabbage
- Sink
- Soup Bowl
- Spoon
- Water

Supplies Needed - Chapter 7

Lab. Set:

Bouillon Cube	2
Cotton Swab	5
Gelatin, unflavored	2
Gloves, disposable, non-latex	3
Iodine	5
Measuring Cups	3
Measuring Spoons	3
Plastic Wrap	LIB
Sugar	2
White Paper	1

You Provide:

- Ammonia
- Glasses, small, 2
- Pot
- Spoon for Stirring
- Stove
- Toilet Bowl Cleaner
- Water

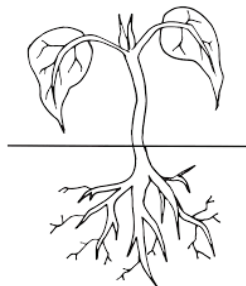
Supplies Needed - Chapter 8

Lab. Set:

Aluminum Foil	3
Brown Paper Bag	4
Hydrogen Peroxide	5
Isopropyl Alcohol	5
Measuring Spoons	3
Paper Towels	4
Plastic Wrap	LIB
Rocks	7
Scissors	1
Vinegar	LIB

You Provide:

- Glass, small
- Green Leaves
- Hair Dryer
- Kitchen Tongs
- Oven
- Pennies, 5
- Pot
- Stove
- Water
- Wooden Spoon



Supplies Needed - Chapter 9

Lab. Set:

Antacid tablets (white packet)	5
Balloon, large	6
Bamboo Skewers	3
Dominoes	7
Gloves, rubber, cleaning	3
Paper Towels	4
Petroleum Jelly	5
Plastic lids, small	4
Scissors	1
String	6
Tape	1
Vinegar	LIB

You Provide:

- Bowl
- Chicken Bone
- Chicken, raw
- Cutting Board
- Glasses, small, 2
- Knife
- Pot
- Toilet Bowl Cleaner



Supplies Needed - Chapter 10

Lab. Set:

Black Construction Paper	1
Clay Dough	7
Cornstarch	2
Die	6
Flour	2
Measuring Cups	3
Measuring Spoons	3
Paper Clips	1
Ruler	1
Tape	1

You Provide:

- Bowl
- Sink
- Table and Chair
- Water
- Wooden Spoon

Supplies Needed - Chapter 11

Lab. Set:

<u>Cardboard</u>	<u>1</u>
<u>Paper Clips</u>	<u>1</u>
<u>Pencil</u>	<u>1</u>
<u>Ruler</u>	<u>1</u>
<u>Scissors</u>	<u>1</u>
<u>Stopwatch</u>	<u>7</u>
<u>String</u>	<u>6</u>
<u>Tape</u>	<u>1</u>
<u>Thread</u>	<u>6</u>
<u>Thumbtacks</u>	<u>1</u>

You Provide:

Books
Chair
Pennies, 5

Supplies Needed - Chapter 12

Lab. Set:

<u>Baking Soda</u>	<u>2</u>
<u>Balloons, small</u>	<u>6</u>
<u>Measuring Cups</u>	<u>3</u>
<u>Modeling Clay, stick</u>	<u>7</u>
<u>Paper Cups, 7oz.</u>	<u>4</u>
<u>Plastic Wrap</u>	<u>LIB</u>
<u>Plastic Bag 6x6"</u>	<u>4</u>
<u>Rubber Band, thin</u>	<u>1</u>
<u>Rubber Band, thick</u>	<u>1</u>
<u>Scissors</u>	<u>1</u>
<u>Straw, bendable</u>	<u>4</u>
<u>Vinegar</u>	<u>LIB</u>

You Provide:

Bottle, 2-liter
Bowl
Gallon Jug, empty
Glass
Pot
Red Cabbage
Sink
Spoons, 2
Stove

Supplies Needed - Chapter 13

Lab. Set:

<u>Antacids (blue packet)</u>	<u>5</u>
<u>Baking Soda</u>	<u>2</u>
<u>Coffee Filter</u>	<u>3</u>
<u>Cooking Oil</u>	<u>2</u>
<u>Dish Soap</u>	<u>3</u>
<u>Funnel</u>	<u>3</u>
<u>Hydrogen Peroxide</u>	<u>5</u>
<u>Measuring Cups</u>	<u>3</u>
<u>Measuring Spoons</u>	<u>3</u>
<u>Paper Towel</u>	<u>4</u>
<u>Potting Soil</u>	<u>7</u>
<u>Scissors</u>	<u>1</u>
<u>Tea Bags</u>	<u>2</u>
<u>Vinegar</u>	<u>LIB</u>

You Provide:

Bowl
Glasses, small, 2
Knife
Lemon Juice
Milk
Mug
Potato, raw
Pitcher
Sink
Spoons, 2
Strainer
Water

Supplies Needed - Chapter 14

Lab. Set:

<u>Black Marker</u>	<u>1</u>
<u>Foam Baseball</u>	<u>7</u>
<u>Pencil</u>	<u>1</u>
<u>Plastic Wrap</u>	<u>LIB</u>
<u>White Paper</u>	<u>1</u>

You Provide:

Counter Top
Chair
Clear Baking Pan
Glasses, 2
Helpers, 3
Phone
Small Object
Table

Supplies Needed - Chapter 15

Lab. Set:

<u>Black Marker</u>	<u>1</u>
<u>Dried Beans</u>	<u>2</u>
<u>Graph Paper</u>	<u>1</u>
<u>Index Cards</u>	<u>1</u>
<u>Measuring Cups</u>	<u>3</u>
<u>Measuring Spoons</u>	<u>3</u>
<u>Scissors</u>	<u>1</u>
<u>White Paper</u>	<u>1</u>

You Provide:

Container with lid
Plate

Supplies Needed - Chapter 16

Lab. Set:

<u>Candle, tealight</u>	<u>6</u>
<u>Colored Pencils</u>	<u>1</u>
<u>Funnel</u>	<u>3</u>
<u>Gloves, rubber, cleaning</u>	<u>3</u>
<u>Hydrogen Peroxide</u>	<u>5</u>
<u>Matches</u>	<u>3</u>
<u>Measuring Cups</u>	<u>3</u>
<u>Measuring Spoons</u>	<u>3</u>
<u>Yeast</u>	<u>2</u>

You Provide:

Bottle, 2-liter
Casserole Dish
Counter Top
Glass
Spade
Yard

DONE!