

<b>FireWorks Trunk Items for Northern Rocky Mountains and Northern Cascades_March 2022</b>			
	<b>Quantity</b>	<b>Instructions</b>	<b>Notes</b>
<b>Posters</b>			
<a href="#">Fire Triangle Poster</a>	1	Download/print/laminate	24x24 inches
<a href="#">Fire Environment Triangle Poster</a>	1	Download/print/laminate	24x18 inches
<a href="#">FireWorks safety Poster</a>	1	Download/print/laminate	20x16 inches
<a href="#">Life Size Fire Scar Poster</a>	1	Download/print/laminate	40x56 inches
<a href="#">Growth Rings Form Poster</a>	1	Download/print/laminate	33.25x18.75 inches
<a href="#">Seed Histogram Poster</a>	1	Download/print/laminate	24x18 inches
For low severity fire activities:			
<a href="#">Set of Tree Cookie Posters</a>	1 set of 11 posters	Download/print/laminate	11 posters, 12x18 inches each
<a href="#">FireHistBackground low-severity Poster (contains timeline and timeline strips)</a>	2	Download/print/laminate	2 posters, 54x30 inches each. Second poster is cut into 15 strips
For high-severity fire activities:			
<a href="#">Set of Increment Core Photos</a>	1 set of 11 strips (initially cut from 1 poster)	Download/print/laminate/ cut into strips	36x24 inches
<a href="#">FireHistBackground stand-replacing Poster (contains timeline and timeline strips)</a>	1	Download/print/laminate/ cut into strips	54x30 inches
<a href="#">Potholes Study Area (can be projected rather than printed)</a>	1	Download/print/laminate	36x30 inches
For lesson H10 <sup>1</sup> :			
<a href="#">Weather Growth Timeline Poster<sup>1</sup> (can be projected rather than printed)</a>	1	Download/print/laminate	30x56 inches
<a href="#">FireAbovegroundSeverity poster<sup>1</sup> (can be projected rather than printed)</a>	1	Download/print/laminate	26.6x15 inches
<a href="#">Fire Size &amp; Growth Timeline Empty Chart<sup>1</sup></a>	1	Download/print/laminate	24x30 inches

Other (Binders/Visual Aids)			
Fire Reporting packets <sup>1</sup>	1 set of 6	Download/print	multiple documents, printed on standard 8 1/2 x 11 paper
Weather Growth Timelines <sup>1</sup>	6	Download/print	6 posters, 11x17 inches each
<a href="#">FireWorks Encyclopedia- younger grades (~2-4)</a>	1	Download/print	Make/Purchase binder & sheet protectors
<a href="#">FireWorks Encyclopedia- older grades (~5-8)</a>	1	Download/print	Make/Purchase binder & sheet protectors
<a href="#">Cookie book for tree cookie posters*</a>	1	Download/print	Make/Purchase binder & sheet protectors
<b>Other Items</b>			
Spray bottles	4	Purchase	
Rulers, 15 cm	10	Purchase	
Metal trays (i.e., cookie sheets)	4	Purchase	
Ashtrays	4	Purchase	
Votive candles	8	Purchase	
Safety goggles	4	Purchase	Smaller sizes available
Oven mitts	4	Purchase	Smaller sizes available
Chemistry support stands	4	Purchase/Make	(If you don't intend to do tinker trees, you can buy a chemistry support stand. If you are going to do tinker trees, you will need to buy square posts to punch holes through, a base for the posts to screw into, and the posts will need to have holes drilled in them.)
Metal rod with an alligator clip for each end	4	Purchase rods and clips	<a href="https://www.amazon.com/iExcell-Alligator-Crocodile-Clamps-Plastic/dp/B01D9BO400/ref=sr_1_7?ie=UTF8&amp;qid=1535473724&amp;sr=8-7&amp;keywords=alligator+clips&amp;dpID=51o0DEObH6L&amp;preST=_SX300_QL70_&amp;dpSrc=srch">https://www.amazon.com/iExcell-Alligator-Crocodile-Clamps-Plastic/dp/B01D9BO400/ref=sr_1_7?ie=UTF8&amp;qid=1535473724&amp;sr=8-7&amp;keywords=alligator+clips&amp;dpID=51o0DEObH6L&amp;preST=_SX300_QL70_&amp;dpSrc=srch</a>
Clamps	4	Purchase	Like this but in metal: <a href="https://www.amazon.com/dp/B00CLDPCA/ref=sxbs_sxwds-stvpv2_1?pf_rd_m=ATVPDKIKX0DER&amp;pf_rd_p=6375e697-f226-4dbd-a63a-5ec697811ee1&amp;pd_rd_wg=dHafd&amp;pf_rd_r=NDETBSBH24ZRSE5V2N8&amp;pf_rd_s=desktop-sx-bottom-">https://www.amazon.com/dp/B00CLDPCA/ref=sxbs_sxwds-stvpv2_1?pf_rd_m=ATVPDKIKX0DER&amp;pf_rd_p=6375e697-f226-4dbd-a63a-5ec697811ee1&amp;pd_rd_wg=dHafd&amp;pf_rd_r=NDETBSBH24ZRSE5V2N8&amp;pf_rd_s=desktop-sx-bottom-</a>

			<a href="https://www.amazon.com/slot&amp;pf_rd_t=301&amp;pd_rd_i=B00CLCDPCA&amp;pd_rd_w=4rctd&amp;pf_rd_i=Head+Clamp&amp;pd_rd_r=1eef6f35-f647-443c-b9cc-b971a2bc49e1&amp;ie=UTF8&amp;qid=1535480619&amp;sr=1">slot&amp;pf rd t=301&amp;pd rd i=B00CLCDPCA&amp;pd rd w=4rctd&amp;pf rd i=Head+Clamp&amp;pd rd r=1eef6f35-f647-443c-b9cc-b971a2bc49e1&amp;ie=UTF8&amp;qid=1535480619&amp;sr=1</a>
Wire rod segments	~50	Purchase	Segments of wire rod (for tinker trees), need to be cut to length
Acorn aluminum chain-link fence caps	2	Purchase	<a href="https://www.hooverfence.com/chain-link-fence-aluminum-acorn-chain-link-post-caps">https://www.hooverfence.com/chain-link-fence-aluminum-acorn-chain-link-post-caps</a>
2.5" (7cm) diameter ring for support stand (retort ring)	2	Purchase	Like this: <a href="https://www.amazon.com/Laboratory-Support-Ring-Set-Assortment/dp/B00QL9BUBM/ref=sr_1_4?keywords=retort+ring&amp;qid=1550619830&amp;s=gateway&amp;sr=8-4">https://www.amazon.com/Laboratory-Support-Ring-Set-Assortment/dp/B00QL9BUBM/ref=sr_1_4?keywords=retort+ring&amp;qid=1550619830&amp;s=gateway&amp;sr=8-4</a> . See photos in H03: <a href="https://www.frames.gov/documents/fireworks/curriculum/NRockies-NCascades/HighSchool/H03/H03_FireTriangle_Combustion_CarbonCycle.pdf">https://www.frames.gov/documents/fireworks/curriculum/NRockies-NCascades/HighSchool/H03/H03_FireTriangle_Combustion_CarbonCycle.pdf</a>
Tongs, for dry ice	1	Purchase	
1-qt plastic freezer container (or beaker)	8	Purchase	
Fire extinguisher (not always necessary if room has one)	1	Purchase	
Digital thermometer w/thermocouple wire	1	Purchase	Purchase spare batteries as well
Measuring tape	1	Purchase	Purchase cloth tape from craft store
Hair dryer	1	Purchase	Without auto-cooling safety feature
Aluminum pie tins	4	Purchase	Purchase 9" diameter aluminum pie tins w/ tilted edges
Whisk broom or red cloth napkin	1	Purchase	
Serotinous (closed) lodgepole pine cones	>50 cones	<b>Collect</b> locally	closed cones, store in zip lock bag
Tree cookies (not essential, but great to have)	4	<b>Collect</b> locally	(1 unscarred, 1 ponderosa, 1 lodgepole, 1 whitebark)
<b>References (optional)</b>			
** <u>Book of Fire</u>	1	Purchase	by William H. Cottrell, Jr. (1989)
** <u>Rocky Mountain Tree Finder</u>	4	Purchase	by Tom Watts (1972)
** <u>Tree Basics</u>	1	Purchase	by Alex L. Shigo

Kits

<b>Buried Treasures****</b>	1	Purchase box only/Make/Collect	Collect locally (9 specimens)
<b>Matchstick Forests****</b>			
Masonite Boards (1/4")	4	Purchase/Make	Boards will need to be cut to size, holes drilled
Nuts & washers	4	Purchase	
Medium bolts	4	Purchase	
Long bolts	4	Purchase	
Small nails	4	Purchase	
<b>Campfire Challenge****</b>			
Dead/dry conifer needles	bunch	Collect locally	ponderosa pine, if possible
Small, dry twigs	bunch	Collect locally	(about 0.5 cm in diameter or less)
Large, dry sticks	bunch	Collect locally	(about 3 cm in diameter)
Green conifer needles	bunch	Collect locally	Collect just prior to scheduled activity (ponderosa pine, if possible)
Duff (use peat moss)	bunch	Purchase	
"Campfire Challenge" recipes and box		Download & print template	Laminate & cut, make 2: 1 for elementary, 1 for middle
<b>Story Time</b>			
Story Time: "Creepy Crawly Fires" (Loose-leaf Notebook for Ponderosa Pine forest)	1	Purchase/Make	Patterns available/ takes approx. 20 hours to assemble
Story Time: "Roaring Tree-Top Fires" (Loose-leaf Notebook for Lodgepole Pine forest)	1	Purchase/Make	Patterns available/ takes approx. 20 hours to assemble
Story Time: "Rollercoaster Fires" (Loose-leaf Notebook for Whitebark Pine forest)	1	Purchase/Make	Patterns available/ takes approx. 20 hours to assemble
Story Time: Feltboard Background	3, one for each story	Purchase/Make	(blue, with hills & sun)
Pins in film canister		Purchase/Repurpose	

<b>Feltboard kit for M14</b> (Modeling forest communities)		Make	Patterns available
<b>Mystery trees (Tree identification)****</b>			
Tree bark/trunk specimen		<b>Collect</b> locally	10 species
Cone/flower specimens (for 9 species)		<b>Collect</b> locally	9 species
Pressed foliage specimens		<b>Collect</b> locally	10 species
<a href="#">Tree Photo Packet*</a>		Download/print	Make/Purchase sheet protectors & key ring for organizing
<b>Tinker trees kit (award badges)*</b>	8 (4 for 1st round, 4 for 2nd round)	Download/print	Laminate & cut, make 3 of each
<b>Nature's Insulators</b>			
Round can or box	1	Purchase (or repurpose)	Empty round coffee can, paint can, or round oatmeal box
Insulation materials	1 set of 3	Purchase/Make	Make/Purchase white fabric & quilt batting
<b>Fire Ecology Puzzler*</b>	4 sets (3 puzzles per set)	Download/print	Make/Purchase/Laminate, then cut & label; 3 puzzles, each with a key- make 4 sets

\*Store in sheet protectors or brown manila folders

\*\*Reference materials, not used in specific lessons

\*\*\*Will need laminating

\*\*\*\*Small plastic tubs are handy for storing kits

<sup>1</sup>Might get replaced with updated version