

## Ancient Times

27 Feb 10:30

Duty six :

Start	Time	Activity	Requirements	Instructions	Scouter
27 Feb 10:30	5	Activities : Opening	Register, beans, flag, totem and skin	Grand Howl Flag Break Register Inspection - belts and shoes	Akela
27 Feb 10:35	15	Activities : Sundial	<ul style="list-style-type: none"> <li>Two sheets of paper, ideally cardstock or some other heavy stock.</li> <li>Scissors</li> <li>Paper glue</li> <li>Printer</li> <li>Ruler</li> <li>Something pointy, e.g., a pen with no ink or a small screwdriver</li> <li><a href="http://analemmatic.sf.net/cgi-bin/papercraft.pl">http://analemmatic.sf.net/cgi-bin/papercraft.pl</a> - to create the template for your location</li> </ul>	<p>Cut out the dial circle from the template provided. If you like, you can glue it on a harder backing.</p> <p>The gnomon is the pointer that casts the shadow. The gnomon is on the second page of the template and has five dashed/dotted lines (depending on your color choices, they may be hard to see; you might want to put a black and white version on screen for references). The lines that have only dashes ( _ _ _ _ _ ) are valley folds--you will fold so that the dashed line is at the bottom of the crease. The lines that have dashes and dots ( _ . _ . _ . _ ), i.e., the central line and the lines for the outside flaps, are mountain folds--you will fold so that the dashed and dotted line is at the top of the crease.</p> <p>Before folding, however, you need to score all the fold lines to make an accurate gnomon. To do that, use a ruler and draw over them with a pointy object, like a small sharp screwdriver. Try to remember which lines are mountain and which are valley folds or have the PDF file on your computer screen for reference, since the scoring may make it hard to see the dots and dashes.</p> <p>After scoring, cut out the gnomon's outer edges. (I find it easier to score before cutting.)</p> <p>Make all the creases in this step nice and sharp. It will be difficult to keep them sharp as you reach the end where they come together. Using a ruler may be helpful.</p> <p>Start by folding the gnomon in half along the central mountain-fold line, and pressing the halves together (as below). Make the halves line up nicely.</p> <p>Then fold back (in the opposite direction to the first fold) along the next two lines, which are valley-fold:</p> <p>Next, carefully glue together the two triangles on either side of the central mountain-fold line, up to the valley-folds you just did:</p> <p>Don't use too much glue--you want a very flat and straight joint. Wait for the glue to set a bit before the next step. If you want the gnomon to be stronger, you can embed a wire extracted from a wire-tie along the crease.</p>	Akela

				<p>Finally, you have two small flaps which will be used to glue the gnomon to the triangular (or, more precisely, diamond-shaped) area on the dial. They are attached with mountain folds--crease them so they join up but do not overlap:</p> <p>Go back to the gnomon and put glue all over the two small triangular flaps on the bottom of the gnomon, and glue them down into their positions on the dial. Make sure the flaps don't overlap, but join evenly. Try to align them as carefully and as symmetrically as you can with the triangles for them on the dial, and glue the flaps down neatly along the creases..</p> <p>Optionally, for more precise alignment, you can first cut out the Gnomon sizer triangle. Then while the glue on the gnomon flaps is still tacky, play with adjusting the exact gnomon height (it goes up if you move the flaps slightly together and down if you move them slightly apart). The gnomon height should be the same as the height of the Gnomon sizer triangle (with the word Gnomon sizer being horizontal), and the distance from the center of the dial to where the tip of the gnomon overhangs should be the same as the length of the sizer.</p> <p>To use the dial, you need to place it on a level spot (e.g., a sunlit table) and align the N arrow with geographic or true north (in the northern hemisphere, the gnomon will also point north; in the southern hemisphere, it will point south). Unfortunately, geographic or true north is not the same as the magnetic north shown by a magnetic compass.</p> <p>The simplest way to align is simply to look at a watch and turn the dial until the shadow shows the correct time. (You may also want to do an Equation of Time adjustment when reading the time shown on the dial- see the next step. Also, make sure you make a daylight savings adjustment if the dial is not printed for the current season's time.) There are other methods. You can use a magnetic compass and correct for magnetic declination.</p>	
27 Feb 10:50	5	<b>Activities</b> : Juice and biscuits		Juice and biscuit break	Akela
27 Feb 10:55	5	<b>Activities</b> : Closing	Totem, Skin Badges, certificates	Announcements Badge handouts Grand Howl Flag Down Prayer Dismiss	Akela