The Chemistry of Coffee Brewing:
When brewing coffee, hot water acts as a solvent which washes the soluble solids out of the coffee grinds and into the brew. Brew methods that use paper filters have only the soluble solids in the cup. Brew methods like French press, espresso or turkish coffee have insoluble solids suspended in the liquid. Five main factors influence control brewing results. First is the ratio of water-to-coffee. Second is the particle size of the coffee: a finer grind means more surface area of the bean is exposed to the water. Third is the temperature of the water, ideally between 198-204°F, since water is a better solvent at near-boiling temperature. Fourth is contact time, how long the water and coffee are in contact with each other. Last is agitation; stirring the coffee-water infusion increases extraction rate of soluble solids. Knowing these simple theories might help you troubleshoot that next bitter, weak, or flat tasting cup.

Recommended Clever Coffee Dripper Brewing Method
The ideal brewing practice is:
1) Insert filter into the dripper and rinse to reduce paper taste and warm the dripper.

2) Grind immediately before you brew. Our recommendations are based on using a relatively fine drip grind. If you use a coarser grind, you may need to lengthen extraction time. If the water pools and does not drain effectively in Step 5, try a coarser grind.

3) Add coffee into the filter (See chart below for ratios we found work well.)

4) Add the water and cover. After 1.5 minutes, lift the cover, stirring to fully mix the grounds and water and re-cover.

5) At 4:00, stir one last time and place dripper on top of a mug or other vessel to start coffee draining. To stop the flow, simply lift the dripper off the mug.

<table>
<thead>
<tr>
<th>Amount of Ground Coffee</th>
<th>Water used***</th>
<th>Amount of Filtered Coffee Made</th>
</tr>
</thead>
<tbody>
<tr>
<td>22g</td>
<td>12 oz/350 mL</td>
<td>10 oz/300 mL</td>
</tr>
<tr>
<td>33g</td>
<td>18 oz/530 mL</td>
<td>15 oz/450 mL</td>
</tr>
<tr>
<td>66g*</td>
<td>36 oz/1 L</td>
<td>30 oz/900 mL</td>
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</tbody>
</table>

*requires refilling the filtercone
*** We have found that for the most accurate brewing, it is best to measure your water by weight. This is easily done by preparing your coffee on a scale. For 22 grams of coffee, you want to use 360 grams of hot water. Coffee is fresh for 10 minutes or less. Try to make the right amount of coffee so you are drinking fresh brewed coffee more often.

More on brewing with the CCD: www.sweetmarias.com/clevercoffeedripperpictorial.php
More general brewing comments: www.sweetmarias.com/grind.brew.php