A heuristic diagram as an improvement of Gowin’s Vee heuristic is proposed. The left side originally related with philosophies, theories, models, laws or regularities now agrees with Toulmin’s concepts (language, models as representation techniques and application procedures). Mexican science teachers without experience in science education research used the heuristic diagram to learn about the history of chemistry considering also in the left side two different historical times: present and past. Through a semantic differential scale teachers’ attitude to the heuristic diagram was evaluated and its usefulness was demonstrated.