

## Worksheet 2 (answer sheet): We burn sugar – Cellular respiration and respiratory chain

### Task

Cut out the cards and work out a logical sequence for a dialog.

<p><b>A:</b> Tell me what the focus was in all the experiments you did.</p> <p>First card</p> <p>1A</p>	<p><b>A:</b> So what was the function of the ash if it did not change during the burning of the sugar?</p> <p>7A</p>	<p><b>A:</b> Could you ignite the sugar cube with a lighter without difficulty?</p> <p>4A</p>	<p><b>A:</b> Which experiment did you first attempt with sucrose?</p> <p>3A</p>
<p><b>A:</b> Does sugar also undergo oxidation in our body?</p> <p>9A</p>	<p><b>A:</b> And where are the products resulting from the oxidation of carbohydrates in the body?</p> <p>10A</p>	<p><b>A:</b> Sugar is a word used in colloquial language. What do chemists call it and to what group does it belong?</p> <p>2A</p>	<p><b>A:</b> Ah, it was the catalyst that allowed the burning of sugar to take place. Which substances are produced when sugar burns?</p> <p>8A</p>
<p><b>A:</b> And how did you finally manage to ignite the sugar cube?</p> <p>5A</p>	<p><b>A:</b> What happened to the ash in this experiment?</p> <p>6A</p>	<p><b>B:</b> <i>I burned a piece of paper and spread the ash on and around the sugar cube. Then I could ignite the sugar cube.</i></p> <p>5B</p>	<p><b>B:</b> <i>When I burned the sugar, nothing happened to the ash.</i></p> <p>6B</p>
<p><b>B:</b> <i>The water and carbon dioxide leave the body, e.g. through the air we exhale.</i></p> <p>10B</p>	<p><b>B:</b> <i>In all the experiments I studied what happens when sugar is burned.</i></p> <p>1B</p>	<p><b>B:</b> <i>Sugar is called sucrose and belongs to the carbohydrate substance group.</i></p> <p>2B</p>	<p><b>B:</b> <i>During the combustion (oxidation) of sugar, water and carbon dioxide are produced.</i></p> <p>8B</p>
<p><b>B:</b> <i>The ash reduced the activation energy for the reaction. In chemistry we call such a substance a catalyst.</i></p> <p>7B</p>	<p><b>B:</b> <i>This happens constantly in our body. The carbohydrates are oxidized, thus releasing energy to the body.</i></p> <p>9B</p>	<p><b>B:</b> <i>First I tried to burn a sugar cube with a cigarette lighter.</i></p> <p>3B</p>	<p><b>B:</b> <i>No, I could not ignite the sugar cube with the lighter.</i></p> <p>4B</p>