Physical or Chemical Change?

Note: Remember the safety rules for working with open flames!

Hypothesis (What do you think will happen and why - make a prediction. Give a scientific explanation):

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Procedure (How it's done):

Materials

✓ Safety goggles
✓ Aluminum foil
✓ Lighter
✓ Candle
✓ Sugar cubes
✓ Water

1. Make a tray out of aluminum foil.
2. Crush the sugar cubes.
3. Pour 20 mL of water into tray.
4. Add crushed cubes to the water in the tray.
5. Use a lighter to light the candle.
6. Attach a clip to the aluminum foil tray.
7. Hold tray over flame.
Physical or Chemical Change?

Observations (What do you think will happen - make a prediction - and why):

Complete the table below by entering your observations. Write descriptions of what you see. Draw a diagram.

<table>
<thead>
<tr>
<th>After cubes crushed</th>
<th>While heating cubes</th>
<th>After cubes heated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Conclusions/Analysis (Was your hypothesis correct? Why? Give a scientific explanation.):

Answer these questions for each step of the experiment:
1) Is it a solid, liquid or gas?
2) Was it a physical or chemical change?
3) What evidence do you have for your conclusion?

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Physical or Chemical Change?

- See page 17 in your text for explanations of physical and chemical changes.

Word Bank: Words you can use in your hypothesis and conclusions.

- Decompose
- Break down
- Substance
- New substance
- Combine
- Physical change
- Chemical change
- Form
- Shape
- size
- Melt
- Heat
- Change of state
- Solid
- Liquid
- Gas
- Crystals
- Melting point
- Boiling point
- Carbon