Experiment worksheet – light energy

We have been tasked with an experiment. We have to leave two cups of water outside under different conditions and measure the temperature every 5 minutes. We have done the experiment and recoded our data in the table below. Look at the data and answer the questions that follow.

1. What effect do you think the sun will have on the water?
   - Both water cups will heat up
   - Only the water in the sun will heat up.

Time	Temperature of cup in the sun	Temperature of cup in the shade
Start	20°	20°
5 minutes	21°	20°
10 minutes	23°	21°
15 minutes	23°	21°
20 minutes	25°	22°
25 minutes	26°	22°
30 minutes	29°	23°

2. Why is the cup in the shade getting hotter?
   - Some sunlight reaches the shade.
   - The shade generates heat as well.

3. Which cup had more of a temperature change?
   - The sun cup
   - the shade cup

4. Why do you think the cup in the shade did not change as much?
   - The shade cup is special water.
   - The shade cup does not get enough light energy.
   - The shade cup does not get enough heat energy.

5. From the data that we can see, what does this tell us about light energy?
   - The sun produces fire that heats up the water.
   - The light energy from the sun creates heat energy.
   - The light energy lets us see the water. Heat energy comes from somewhere else.

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