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Chapter 3

"Why can't you finish your experiments?" puzzled Tara.

Ayesha looked upset.

"Dr Lonsdale has disappeared! And we need her to finish the final experiment. We found a note saying she had gone to ask the GREAT prize judges for more time. Very strange."

"Why is that strange?" asked Tara.





"They won't give extra time to one lab and not to the others. It wouldn't be fair. Dr Lonsdale knows that," said Ortez. "Why is she wasting the little time we have left?"

"Have you tried phoning her?" asked Tara.

"No answer," replied Ortez. "We've left lots of messages, but she hasn't called back."

"Can you start the final experiment without her?" suggested Tara.

"We'll have to," said Ortez. "But we don't know all the steps to follow."



Ayesha and Ortez explained to Tara how solar panels work.

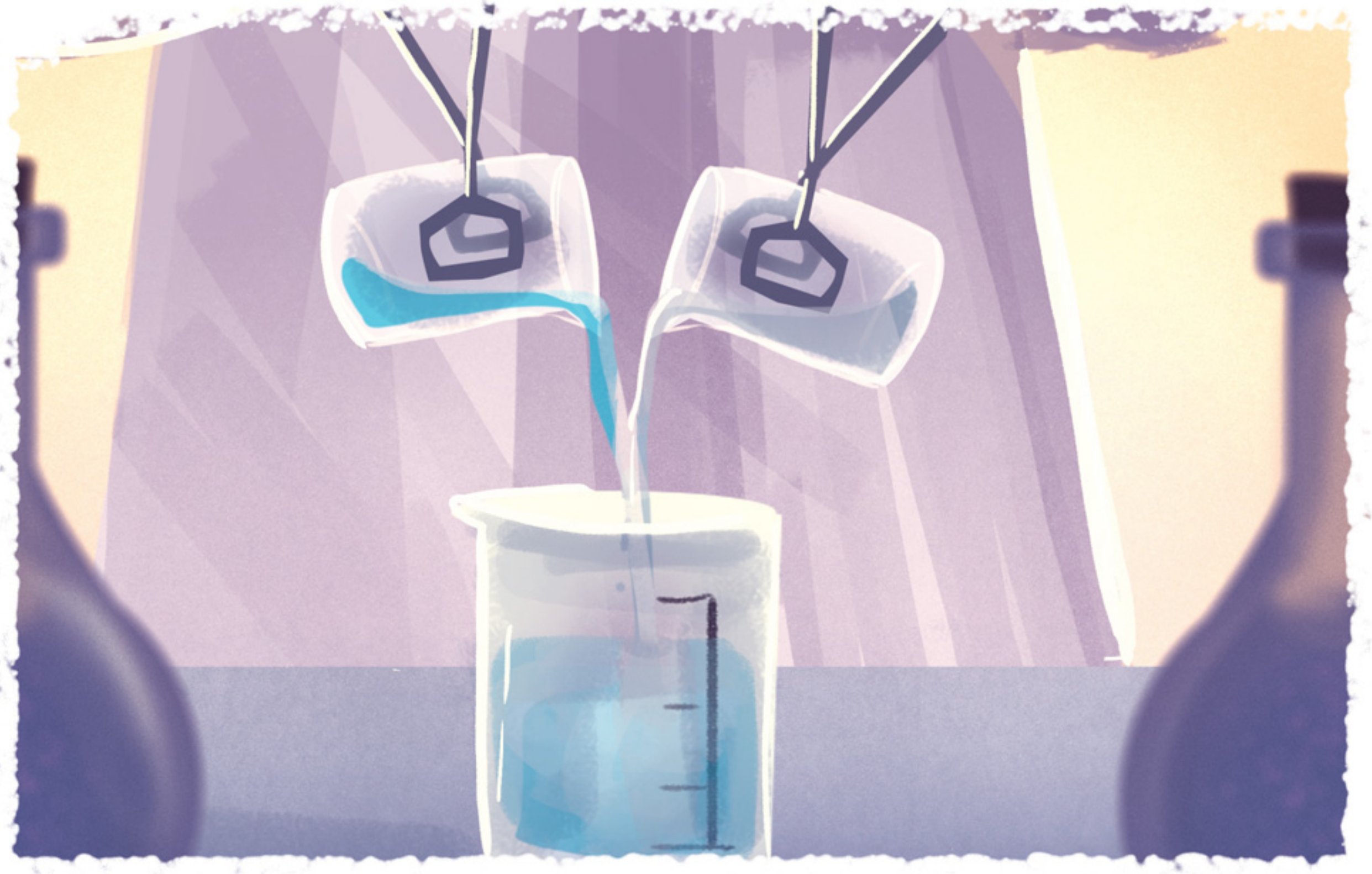
"Solar panels are made up of many little solar cells. Each cell is made from a type of glass that takes some energy from the Sun's rays. A special liquid coating is sprayed on to each solar cell. This helps the solar cell take more energy from the Sun's rays, so the cell makes more electricity," said Ayesha.

Ortez went on, "The special coating is very important. The amount of electricity the cells make depends on it. We have to be careful when we make the coating – some of the chemicals in it are reactive or dangerous."

"You mean this could explode?" gasped Tara, taking a few steps back from the experiment bubbling away on the worktop.



"No," smiled Ortez. "We are VERY careful. And the chemicals used to make the coating are only dangerous on their own, so we combine them with other chemicals. It makes them less likely to explode."



"Dr Lonsdale has been working on a new coating," added Ayesha. "It might make the solar cells work three times as well. We were so excited because we could win the competition. But, like we said … we don't know exactly how she wanted to do it."