

**The title of this student text is  
“What did the Deep Impact Mission tell us about  
Comet Tempel 1?”**

**The optical cameras on the Deep Impact  
spacecraft had only eight hundred seconds to  
make images of comet Comet Tempel 1’s nucleus.**

**The nature of the nucleus, which had never before  
been seen, was a complete surprise.**

**You have already observed the shape and some  
of these features in Tactile Card four or another  
model. Remember the irregular shape of the  
comet?**

**Remember the two large flat areas and rough  
areas?**

**And the circular rims that may be remains of  
impact craters?**

**And the large depression in one of the smooth  
regions?**

**We didn’t know about any of these features before  
the Deep Impact mission.**

**If you need to refresh your memory, review your  
observations again Tactile Card four or another  
model that you used.**

**Scientists think that the comet's different levels of terrain, the presence of what may be impact craters, and its powdery surface are evidence of Tempel 1's evolution.**

**Tempel 1 did not rotate on its axis very much during the short observation period of the Deep Impact Mission.**

**The cameras only saw a little more than half of the comet's surface. So we are not sure what the other side of the comet looks like.**

**Optical camera images record only reflected electromagnetic radiation in visible light frequencies. They can tell only one part of the story.**

**So the Deep Impact scientists also used spectroscopy to observe Tempel 1.**