Cassini Scientist for a Day: November 2010 UK & Ireland Competition
14-16 age group Winner: James Palmer, Ardingly College

Saturn's moon Titan I believe is the most interesting out of all the possible objects to view; it is the closest earth-like structure in our solar system and will give us the chance for the best research that we can use at this time.

Titan I believe has some extraordinary characteristics, one of which is its very dense nitrogen based atmosphere, which would be great to compare against our own atmosphere. It may help us to understand in depth where extra terrestrial life could live or where mankind could be able to survive in addition to Earth in the future. The atmosphere of Titan is also interesting form another point of view as it breaks down greenhouse gasses, something which could be useful on Earth. Also the way it glows sometimes would be really spectacular and to have a video showing all this would be out of this world and one I would love to see even if I do not direct it myself.

Apart from an amazing atmosphere, Titan has a fascinating surface which is geologically quite young and could give us information about what a young earth may have looked like and also what to look for in the future as we push out our research in the universe. With diverse areas on its surfaces such as valleys, hills, gorges, planes, and volcanoes, which are composed differently to those here on earth. So it would be fantastic to see and compare the difference.

We can compare craters on other moons to Titan's that have been filled in on this spectacular moon. This could help us when we search on earth for places where a meteor might have landed which may have wiped out the dinosaurs and other prehistoric animals and species. This may help us later on in determining what extra terrestrial objects can do to planet Earth over time. Images of Titan will also help us understand its climate which is similar to an early Earth, helping with our understanding of space geology.

With silicon also readily available on the moon it may in turn help us prove or disprove that it may also be an element that life can be based on because silicon is very similar to carbon, which we currently believe life is based on.

The other great opportunity that target two offers is looking at the rings behind Titan which to say I have done I would love and also two other moons that excite me a great amount because they are so weird and different to other lunar bodies.

The Cassini scientist for a day video which can be made with target two is a fantastic chance to look into an incredible lunar body that is Titan that can help us learn so much.