Dear Selection Panel members,

(Introduction: how, when, where, what, who, why)
The ancient Chinese invention of the Astronomical Clock was such a momentous achievement and had such significance that it deserves your attention and should be recognised by your panel.

The Astronomical Clock was designed and constructed by a high official named, Su Song, (1020-1101) in 1086. He made the clock for the Emperor, Zhezong (1085-1100) in the capital of China, Kaifeng, in the eastern central Henan province in the North Song Dynasty. (Wikipedia, 2019)

The clock tower was almost 11 metres high. He added a chain-driven mechanism to an existing water-powered clock. A water tank dripped water into one bucket at a time. As the bucket filled, it became heavy enough to trip a lever and rotate the wheel. When the wheel rotated, the next bucket moved under the water tank for filling. (Mertz, 2001)

(Main reason 1: relevance)
It had great relevance to people living at the time because this clock told not only the time of day but also the day of the month, the phase of the moon and the position of certain stars and planets in the sky. On the top was a mechanically rotating sphere that showed the changing location of the planets and stars. (Columbia University, 2019 and PBS, 2019) They could then plan the best time to plant their crops, make appointments and tell the time of the day.

Mechanical clocks not only made timekeeping much more precise, which was important for scientific purposes, but also introduced it to the masses when centrally located clock towers equipped with bells loudly struck on the hour, even though Su built the clock at the request of the Emperor. (Mertz, 2001)

(Main reason 2: remembered and resonance)
This invention had great significance because it was both remembered and connected with people across time and place. Su Song’s writings were widely published throughout the north of China in 1092 and in the south in 1172, (Wikipedia, 2019) and would have reached many millions of people. The communication of ideas to many increased the significance of the clock and provided knowledge for others to replicate the workings of the clock for other purposes, especially the chain driven mechanism.

The significance of the invention has been remembered long after its creation by John Christiansen, who in 1956, reconstructed a model in a famous drawing and by a miniature model made by John Cambridge, on display in London. The clocktower was also reconstructed by Wang Zhenduo, in China in the 1950s. (Wikipedia, 2019)

(Main reason 3: consequences for the future)
The clock’s significance can be measured by the change it brought about. Knowledge of the principles of Su Song’s clock spreading to Europe led to the development of mechanical clocks in the West two centuries later. (Sutherland, 2019)

Clocks continued to develop over the centuries and have led to improvements for people in countries all over the world in fields of science, mathematics, physics and space travel.

(Conclusion)
The significance of the astronomical clock was relevant to the people at the time and had important consequences for the future for many millions of people around the world. For these reasons this ancient Chinese invention should be considered by the panel as one of the most significant of all inventions.

Yours sincerely,

(Your name)
(Your class: e.g. 7B Humanities)
Bibliography


Evaluation: This was an excellent site with detailed information and produced by the Columbia University in USA, for students and educators. Its information was relevant, accurate and provides a contact address to the department responsible for the information. Its purpose is to educate and there are no advertisements on the page and all the links work, and it is easy to navigate. Score: 10/10


Evaluation: Although this is a .com site, there is little advertising and the content is sourced from credible sites such as encyclopedias, books and articles as was this information. There is an author’s name attributed to the information and I found out that she is a science writer and there were links to further information about my topic. The information was easy to read and relevant. Score 9/10


Evaluation: PBS is a media organisation with a reputation for providing quality information. The site had a grade level of 4-12 on it so I knew it was at my level of understanding. There were no advertisements and a video explained the workings of the clock. The information was brief but provided me with a good introduction to the clock. Score: 8/10


Evaluation: This site is .com site and there is too much advertising on it. There is an author’s name and information about them. The references are listed and include Wikipedia and a book. This site does list contact details for some of the authors but not Sutherland. It cannot be relied on for credible information, however, it did provide some interesting pictures that were similar to other sites used. Score 4/10


Evaluation: Wikipedia provided relevant information with functioning links and hover-over additional information that I found useful. It was relevant to my topic. The references were listed and provided authority. The purpose was to educate and there were no advertisements. As Wikipedia can be edited by anyone it is a site that should be used alongside other trustworthy sites. Score: 9/10