

## ACTUALITY AND OF EVENTS

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### Introduction-

In our everyday life we always tend to think about what is past, present and future. Not only this but we all have set of questions regarding past, present and future. These are actually events through which we travel in our lifetime, starting from birth to death. These set of events are entangled together which each other. Entanglement can be referred to as a connection between the event. According to Einstein, who gave the famous **theory of relativity** in which he described that we live in a four-dimensional world consisting of the three dimensions i.e. Length, Breadth and Height and also the fourth dimension which is time. **He concluded from his theory that space-time is a fabric which can be bend by mass or energy.** The Sun's light takes approximately eight minutes to reach us because of which we are saying the event which has happened earlier. In other words, we are always seeing the past.



### Purpose of the Project-

As children and adults who read about astrophysics always find certain things weird. But as we know that science is the subject of logics and we cannot accept anything without a actual proof or understanding. On this note,

### Aim of the project

1.To give a prove that the sun and Star lie in the same event

2.To Characterise the final structure of events

3.To prove that Events have Different masses

### Terms Used in the Project

Spacetime- this term tells us that we live in a 4D world which consist of – Length, Breadth, Height and Time

General Relativity – It is the famous theory given by Einstein which tells that the force of gravity is caused by the bending of space time

Special Relativity – This theory tells us the mass energy relation ship which is represented by the most famous equation which is  $E=mc^2$ .

### Our Contribution

So in order to make this project a success and complete it we came with certain relations which we made on this understanding and then we derived the actual structure of events and how they go on with respect to time which can be also represented in the form of a tesseract. We also were able to prove that the sun and earth or the observer lie in the same event. While completing this we wee also able to prove that the all events do not have same masses



