

QUEEN OF THE COSMOS

BEATRICE HILL TINSLEY

ANSWER SHEET



DURING

You could say that Beatrice meant that you can achieve great things if you work hard at a task/job/investigation and don't give up.

The author has labelled Beatrice as 'gifted' because she had a passion for learning that went beyond the classroom. She would read books that were way in advance for her years and practised her musical instruments before and after school.

Astronomy is the scientific study of all objects in space whilst cosmology is the study of the origin and development of the universe.

Rationed coal is a product that is in short supply so the only way people could buy it was with ration cards that were issued by the government.

Her favourite game, pretending she was a radio announcer, says from an early age she was ambitious and not afraid to say she hoped to be famous one day.

The weather was particularly bad after the war with many storms and cold weather. Many people caught viral diseases such as chickenpox and whooping cough. Also, food and coal were in short supply and you had to buy everything with ration cards.

Beatrice was a hard worker, studious, creative, determined, naïve, curious...

This is your thoughts/guess so whatever answer you come up with is okay. However, scientists take a small amount of the space and look at it carefully with a strong telescope and count all the stars and galaxies they can see. Then they multiply that by the estimated number of galaxies in the universe.

The difficulties she faced was that universities in Texas did not teach her subjects at doctorate level. Instead, she had to travel to another state to do her doctorate and further her research and teaching. Her husband did not want to move so she could get a job, too. So, she made the heartbreaking decision to leave her husband.

He would have felt hurt and in his anger he uttered that ultimatum to her. He most likely regretted it very soon after as he then had to juggle children and his work. Plus, he might have regretted upsetting Beatrice.

It says that she could see the positive side of life. She didn't live long but during her time she achieved what she always wanted to do – make a difference in the world of science. Plus, she had loved, had children, met many fascinating students and scientists.

AFTER

Synthesising means integrating information from different areas, which is what Beatrice did. She sifted through research in different fields to find links and looked back at telescopic images to

provide insights. She then provided her theories with precise mathematical calculations and computer modelling.

How old is the universe?

Scientists estimate it is 13.7 billion years old. Scientists found this information by looking at the oldest star and by measuring the rate of expansion of the universe and estimating that back to the Big Bang theory.

Where did the universe come from?

The American Museum of Natural History says that the universe originated 13.8 billion years when the universe began as a tiny, dense, fireball that exploded (called The Big Bang). What caused that explosion is still a mystery. The universe cooled and the simplest elements formed. Gravity gradually drew matter together to form the first stars and the first galaxies.

Where is the universe moving to?

NASA say the universe expansion is speeding up at a faster rate than predicted. Scientists suspect dark energy is accelerating expansion. Scientists at present believe the universe will continue to expand forever.

How many stars are there in the Milky Way galaxy?

NASA says scientists estimate that the Milky Way is made up of approximately 100 billion stars.