**THE UNIVERSE**

1. **In two minutes try to tick the right answers to the questions below. Then read the text following it and check whether your answers were correct.**

Začátek formuláře

1. Which theory of the universe is Cosmic Microwave Background radiation used to explain?

Steady State
Big Bang
Intelligent design

2. What type of star is more likely to form a black hole?

Lightweight stars
Medium weight stars
Heavyweight stars

3. Approximately how long has our sun been shining for?

1 billion years
5 billion years
10 billion years

4. What type of star is our sun?

Yellow dwarf
Red giant
White dwarf

Konec formuláře

5. In the formation of a star what do hydrogen nuclei fuse to form?

Carbon
Helium
Neon

6. What is the average lifespan for stars similar to our sun?

1 billion years
10 billion years
100 billion years

7. What does a massive star form when it has fused its available hydrogen and helium?

Red supergiant
Red giant
Green giant

8. What is formed when a massive star begins to collapse and then explode?

Neutron star
Black hole
Supernova

9. When is a neutron star formed?

The remains of a massive star have a low density
The remains of a massive star have no density
The remains of a massive star have a high density

10. When is a black hole formed?

The remains of a massive star have a low density
The remains of a massive star have no density
The remains of a massive star have a high density

11. Why can't light escape from a black hole?

The gravitational pull is too weak
The gravitational pull is too strong
There is no light in a black hole

12. About how long ago do scientists believe the universe began?

137 million years
1,370 million years
13,700 million years

13. Which is the main scientific theory for the origin of the universe?

The Big Bang Theory
The Oscillating Universe Theory
The Steady State Theory

14. Which piece of evidence supports the Big Bang theory?

The more distant galaxies are moving the slowest.
The more distant galaxies are moving the quickest.
The more distant galaxies are moving towards us.

15. What is the name for the change in the light emitted by a moving object?

Red shift
Blue shift
Ultra violet shift

16. About how many galaxies are there in the universe?

A million
A hundred million
A billion

17. What does SETI stand for?

Send Earth Tourists Instead
Search for Extra-Terrestrial Intelligence
Search for Extra-Terrestrial Intellect

18. What keeps planets in their orbits?

Gravitational pull from each of the planets
Gravitational pull from the sun
Radiation from the sun

19. Which of the following is not a dwarf planet?

Neptune
Pluto
Ceres

1. **Find words or phrases in the text that correspond with synonims or definitions** **below;**

*The Universe*

collect - gather

very little - tiny

become bigger and digger - enlarge

draw together, reduce - contract

here: reduce to small pieces or particles by pounding - crunch

involving main features - overall

*Stars and galaxies*

huge, vast, large - immense

cencerned with, referring to - involved

*The birth of a star*

between or among stars - interstellar

the very center of an object - core

lose colour or light, or become less clearly visible - fade

an event that will inevitably happen in the future - fate

*Space probes*

enter upon, start an activity - undertake

a small part of something intended as representative of the whole - sample

gained - obtained

*SETI*

trace, proof - evidence

discover or determine the existence - detect

of the sky or heaven, celestial - extraterestrial

1. **Watch the video and answer the questions below: (source:** [**www.bbc.co.uk**](http://www.bbc.co.uk)**)**
2. Where is the VLT situated?

*Atacama desert, Chile; Paranal Observatory based more than 2000 metres above sea level.*

1. What does it consist of?

*4 big individual units and small movable telescopes that can be linked together to increase the size of the VLT’s mirror. Each unit has a gigantic mirror 8 metres in diameter.*

1. How big telescope can be generated with the VLT?

*A teleskope with 130 metres in diameter.*

1. What problems can atmospheric turbulence cause?

*Twinkling stars, blurry images.*

1. How is the VLT different from other telescopes?

*It has no eye-pees; astronomers point at the stellar objects using computers.*

1. What will happen to the VLT after the new telescope has been bulit?

*They will work together or complement each other.*