TLC Elementary School Star Videos Notes Page

I.	Characteristics of Stars
1) /	At leaststars in
2) \$	Stars are balls of gasses making radiant energy in the forms of heat and
3) [The nearest star to us is the
4) [The Sun provides thenecessary for life on
5) \$	Stars vary in size, mass, luminosity, and
6) l	Luminosity is the amount ofstars radiate in space
7) I	Magnitude (brightness) the amount of light stars emit;
i	it increases as their, increases
8) \$	Star colors vary as their surface temperatures vary: are hottest and
8	are coolest
9) (Ouris an "ordinary" star
10)	Sun formedyears ago
11)	Sun will use up its in another 5 billion years
12)	Sun iskm from Earth; Light takesminutes to reach Earth
f	from the Sun
13)	A light-year is thelight travels in 1 year
14)	Next closest star to us isCentauri which is 4.29 light years away
f	from Earth
II. Co	olors and Temperatures of Stars
15)	Blue stars are
16)	Red stars are
1/)	Our Sun is astar with surface temperatures between 4900° and
(6000° celcius
18)	Our Sun is an ordinary
19)	The Sun is theobject in the Solar System, but average in the galaxy
III. Ur	nderstanding Stars (8:22)
20)	Stars are made ofand Helium gas
21)	Stars form from a cloud of gas and dust called a
22)	pulls on the gas and dust
23)	Material in the center of the Nebula forms a
24)	Protostars turn into stars when nuclearbegins
25)	During Fusion, part of the mass is converted into
26)	is the only thing keeping the star from exploding into space

27) Most stars are members of "_____" or multiple star systems

- 28) Astsronomers use the radius of the Sun as a unit to compare the sizes of stars; it is called "_____" (696,000 km)
- 29) ______ stars are generally longer lasting
- 30) Medium-sized stars end through a cycle of becoming a Red Giant, then White Dwarf, and then _____.
- 31) Larger stars become Red Supergiants, then explode (_____), then either Neutron Stars or Black Holes
- 32) Black holes have a gravitational attraction so strong that nothing can escape, not even _____.
- 33) _____ means "celestial objects like stars"
- IV. How a Star Forms (3:09)

(Review of previous video)

V. Measuring the Mass and Lifespan of a Star (5:12)

(Review of previous video)

- VI. Studying the Stars (9:30)
 - 34) Galileo Galilei was one of the first astronomers to use a _____.
 - 35) There are 2 types of _____telescopes
 - 36) A ______telescope uses lenses to collect light (like Galileo used)

 37)
 Isaac Newton created the _____telescope

38) It uses large mirrors to collect ______.

 39)
 Optical Telescopes can only detect _____light

- 40) Visible light is only a small part of the _____.
- 41) A ______ can separate white light into its component colors
- 42) When light is shifting towards the ______end of the Spectrum, the light is moving away from the observer
- 43) When light is shifting towards the ______end of the Spectrum, the light is moving towards the observer
- 44) Because the Earth's atmosphere affects the data coming into telescopes on Earth, scientists use telescopes in _____.
- VII. Optical Telescopes (3:22)

(Review of previous video)

VIII. How the Electromagnetic Spectrum Determines Celestial Bodies (3:22)

(Review of previous video)

IX. Images from Spacecraft (1:33)

(Review of previous video)