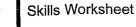
Name	Class	Date	
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Directed Reading 30.3 (ODD)

Section:	Star	Groups

- 1. How many stars make up the universe?
 - a. hundreds
 - b. thousands
 - c. millions
 - d. trillions

CONSTELLATIONS

- 2. Although the stars that make up a pattern appear to be close together,
 - a. they are not all the same distance from Earth.
 - b. they are not all stars.
 - c. they are all the same distance from Earth.
 - d. they are not all visible from Earth.
- 3. If you look at the same region of the sky for several nights, the positions of the stars
 - a. appear to change in relation to one another.
 - b. appear to change in relation to the sun.
 - c. do not appear to change in relation to one another.
 - d. appear to change in relation to the universe.
- 4. Why do the stars appear to be fixed in their patterns?
 - a. because Earth revolves around the stars
 - b. because they are not actually moving
 - c. because of the small distance from which the stars are viewed
 - d. because of the tremendous distance from which the stars are viewed
 - 5. What are the patterns of stars and the region of space around them called?
 - a. star charts
 - b. double stars
 - c. constellations
 - d. galaxies
- 6. Why are constellations useful?

Name	Class	Date	
Directed Reading continue	d .		
MULTIPLE-STAR SYSTEM	IS		
gravity b. triple-star syst together by gra c. pairs of stars t together by gra	hat revolve around e ems that revolve aro avity hat do not revolve an avity	ach other and are held und each other and are ound each other but a ach other and are hel	re held are held
c. the place whe			
9. Where is the bar a. in one of the s b. outside both s c. in the center of	stars tars of each star	n binary stars have si	milar masses
10. How many sunlike stars systems?	s do astronomers est	mate are part of mul	tiple-star
STAR CLUSTERS 11. What are clusters?			
· · · · · · · · · · · · · · · · · · ·			
12. Name and describe two	kinds of clusters.		

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Directed Reading co.	ntinued			· · · · · · · · · · · · · · · · · · ·	
ALAXIES		`.			
13. What is a g	alaxy?		· ,		
a. a large-s gravity	cale group of p	lanets, stars	s, and moo	ons bound to	ogether by
	cale group of s				
	cale group of g	as, element	s, and ato	ms bound to	ogether by
14 What is the	diameter of th	e Milky Wa			
	00,000 years	C Willing W	ıy.		
	00 billion miles				
	00 billion light-	•		1	
d. about 10	00,000 light-yea	ars			
15. What are C	Cepheid variabl	es?			
	ars that fade in		ittern		
b. giant sta	ers that brighter	and fade in	n an irregi	ular pattern	
c. giant sta	ers that brighter	and fade in	n a regula	r pattern	
d. dwarf st	ars that brighte	n and fade	in a regula	ar pattern	
16 The longer	a Cepheid's cy	zcle	, ,		
	mer the star's v		ite maoni	tude	
	hter the star's v		_		. ;
,	mer the star's t		_		
	hter the star's a	_	_		
d. the ong	mer me sun se	рригода пог	1 115441 11	iugiiituue.	
n the space provided f galaxy.	l, write the lette	r of the defi	nition tha	t best matcl	nes the type
17. elliptical g	alaxy	,	_	e from almo	-
18. barred spin	ral galaxy			ght center	i, nus un
19. irregular g	-			of bright sta s that spiral	
20. spiral gala	xy	nucl	leus		
		low	-	ılar shape, r s, and is fai	_
		·	a straight	bar of stars	that runs

	Class Date	
Directed Reading continu	red	-
HE MILKY WAY		
a. a cloudlike b b. a cloudy mas c. a cloudlike e	Milky Way look like in the night sky and that stretches across the sky as in the center of the sky lliptical mass ss with spiral arms	?
22. How is the sun related	to the Milky Way?	
23. How long does it take	the sun to orbit the Milky Way?	
24. What are the closest n	neighbors to the Milky Way?	
+		
25. How far from Earth a	are the Milky Way's closest neighbo	rs?
	·	
QUASARS		
26. When were qua. 1663 b. 1963 c. 1863 d. 1763	uasars first discovered? quasar look like when viewed throu	



Name	e			Class		Date	
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	:	o some qua	•	ect?			
•							
30. ⁻	Where	are quasars	s located?		•		
						,	
						•	
						-	
31.	What c	ould expla	in the larg	e amount of en	nergy emitte	d from a c	quasar?
٠							
						1, 1	