Homework Packet for 9th & 10th Grade

Week 19

Name _____

Week Starts on / Due on _____]____]__

Each week you are to complete your homework packet and turn it on the day the teacher assigns. Part of the homework is reading 45 minutes a day. This can be done in after school care and they can read to a younger sibling or an adult as well. Weekend reading is encouraged, each week students can get credit for reading on Saturday and/or Sunday. Reading each day is very important to help each student get better at this skill.

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Weekly Home Reading Record

Day	Reading Material	Amount of Time	How many pages
Weekend			
Monday			
Tuesday			
Wednesday			
Thursday			

Total Reading Time: Hours _____ Minutes _____

Student Signature: _____

Date: _____

Parents Signature: _____

Date: _____

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GRADES 9-10

VOCABULARY BUILDER
WEEK 19
Daily Activity

Monday : Write out the definition of the vocabulary word and the source where you found it. (*note do not use wikipedia*) and break the word down in Syllables.
Example: ABSTRUSE: 2 Syllables , **ab-struse and it sounds like ab-stroos.**

Tuesday : Write a sentence with the vocabulary word (different than the definition of the vocabulary word).

Wednesday : Write a paragraph with the vocabulary word (different than the definition and the sentence with the vocabulary word).

Thursday : Write a 3 to 5 paragraph essay with all the vocabulary words (different than the definition, and sentences you used with the vocabulary word)

Friday : **Turn in all of your work.**

This week's vocabulary words are:

OLFACTORY	ORNATE	PACIFIC
OMINOUS	ORTHODOX	PALLID
OMNIPOTENCE	OSTENSIBLE	PALPABLE
ONEROUS	OSTENTATIOUS	PARADIGM
OPULENT	OVERT	PARAGON

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Passage IV

INFORMATIONAL: This passage is adapted from *Summer World: A Season of Bounty* by Bernd Heinrich (©2009 by Bernd Heinrich).

Adaptations of plants to deserts include dormancy and a variety of structural and behavioral adaptations. The majority of desert plants depend on a strategy that capitalizes on small size. They are annuals that spring up from dry, dormant, heat-resistant seeds. Some of these seeds may wait up to half a century before they are activated. The plants' challenge is to be quick enough to respond to rain so that they can produce their seeds before the earth dries up again, while not jumping the gun to start growth until there is sufficient water for them to grow to maturity for seed production. Some achieve this balance on a tightrope by "measuring" rainfall. They have chemicals in their seeds that inhibit germination, and a minimum amount of rain is required before these are leached out. Others have seed coats that must be mechanically scarred to permit sufficient wetting for germination, and the scarring happens only when they are subjected to flash floods in the riverbeds where they grow. A plant in the Negev Desert releases its seed from a tough capsule only under the influence of water through a mechanism that resembles a Roman ballistic machine. Its two outer sepals generate sideways tension that can fling two seeds out of the fruit, but the two seeds are held inside by a lock mechanism at the top. However, when the sepals are sufficiently wetted, then the tension increases to such an extent that the lock mechanism snaps, and the capsule "explodes" and releases the seeds.

In moist regions where it rains predictably (though not necessarily in abundance), we help agricultural plants to capture the precipitation by scarring the soil to facilitate the infiltration of the water into it, and hence into the roots. Least runoff and maximum water absorption are achieved by plowing the soil. However, such a strategy would not work in a true desert such as the Negev. A different program is required there because rain is infrequent and plowing would facilitate only the evaporation of scarce water from the soil. The solution applied by the peoples who inhabited the Negev in past centuries was a practice they called "runoff farming." Farmers had mastered harnessing the flash floods that rush down into the gullies by catching the runoffs—not only by making terraces but also by building large cisterns into which the water was directed to be held for later use. Remnants of these constructions still exist.

Water-storage mechanisms have been invented by other organisms living in deserts, but mainly through modifications of body plan. Many plants, especially cacti and euphorbia, have the ability to swell their roots or stems with water stores. Possibly the most familiar is the saguaro cactus, *Carnegiea gigantea*, of the Sonoran desert in the American southwest. It has a shallow root system that extends in all directions to distances of about its height, fifty feet. In one rainstorm the root system can soak up 200 gallons of water, which are transferred into its tall trunk. This trunk is pleated like an accordion and can swell to store tons of water that can last the plant for a year. The cactus has no leaves, but the stem is green and can photosynthesize and produce nutrients as well as store water. The saguaro's survival strategy requires it to grow extremely slowly. But it lives a century or more.

Some desert animals similarly store water. The frog *Cyclorana platycephala*, from the northern Australian desert, fills up and greatly expands its urinary bladder to use as a water bag before burying itself in the soil, where it spends most of the year waiting for the next rain. While in the ground it sloughs off skin and forms around itself a nearly waterproof cocoon that resembles a plastic bag and reduces evaporative water loss.

Desert ants of a variety of species (of at least seven different genera) in American as well as Australian deserts collectively called "honeypot ants" have evolved a solution that combines water storage with energy storage. Ants typically feed each other; and some of the larger worker ants may take up more liquid than the others, and others may bring more. Those that take the fluid may gorge themselves until they distend their abdomens up to the size of a grape, by which time they are unable to move from the spot. They then hang in groups of dozens to hundreds from the ceiling of a chamber in the ant nest, where they are then the specialized so-called repletes that later regurgitate fluid when the colony members are no longer bringing the fluid in but rather needing it.

31. The fourth paragraph (lines 63–71) marks a shift in the focus of the passage from:

- **A.** plants that store water above ground to plants that store water below ground.
- **B.** animals that don't go dormant to animals that do go dormant.
- **C.** desert-dwelling plants to desert-dwelling animals.
- **D.** inhabitants of the Negev Desert to inhabitants of northern Australian deserts.

32. Based on the passage, the author's use of the word "measuring" (line 12) most nearly describes the way that some desert plants:

- **F.** have roots that are extremely sensitive to moisture levels in the soil.
- **G.** have methods of delaying seed germination until a certain amount of water is present.
- **H.** are visibly more vigorous after a rainfall.
- **J.** can calculate how many inches of rain have fallen in recent days.

33. Which of the following statements best summarizes the process by which the frog *Cyclorana platycephala* survives in the desert?

A. The frog stores water in its body, buries itself, and conserves water until emerging at the next rain.
B. The frog buries itself, waits for rain, absorbs rainwater through its skin, and emerges.
C. The frog forms a nearly waterproof cocoon around itself, buries itself, and waits to emerge until it needs water.
D. The frog buries itself, absorbs water through its skin, and goes dormant until springtime.

34. Based on the passage, which of the following plants and animals employ a communal strategy to survive in the desert?

F. The saguaro cactus only
G. The saguaro cactus and the frog *Cyclorana platycephala* only
H. The frog *Cyclorana platycephala* and honeypot ants only
J. Honeypot ants only

35. The passage most strongly suggests that compared to the frog *Cyclorana platycephala*, the honeypot ants are unique in that they:

A. can store water inside their bodies.
B. live in Australian deserts.
C. combine water storage with energy storage.
D. go dormant during dry times.

36. Which of the following provides the best paraphrase of lines 7–11?

F. Annual plants survive in deserts by making seeds swiftly when conditions are right.
G. Annual plants in deserts make seeds during dry conditions so the seeds will be ready when rain arrives.
H. Dry conditions require the seeds of desert plants to start germination prior to the arrival of rain.
J. The seeds of annual plants in deserts are designed to wait years for the right conditions for growth.

37. Based on the passage, it can most reasonably be inferred that the scarring some seeds require before germination is accomplished through:

A. intense drying experienced between rainfalls.
B. internal tension from the seed capsule's sepals.
C. chemicals in the seeds.
D. abrasion sustained during flash floods.

38. As it is used in line 26, the word *extent* most nearly means:

F. length.
G. degree.
H. reach.
J. boundary.

39. According to the passage, which of the following actions did people in the Negev Desert take in order to farm there?

A. Plowing the soil
B. Widening gullies
C. Constructing terraces
D. Constructing aqueducts

40. Based on the passage, the pleats in the body of the saguaro cactus:

F. increase the efficiency of photosynthesis.
G. allow the cactus to expand for storing water.
H. reduce evaporative water loss.
J. regulate the cactus's growth.

Rounding Decimals (D)

Round each decimal number to the nearest place indicated.

1. 7.924 _____ hundredth

2. 2.70 _____ tenth

3. 3.635 _____ tenth

4. 2.73 _____ whole number

5. 1.2 _____ whole number

6. 1.0 _____ whole number

7. 9.1 _____ whole number

8. 1.9976 _____ tenth

9. 5.52 _____ whole number

10. 8.641 _____ hundredth

11. 1.98 _____ whole number

12. 1.5 _____ whole number

13. 9.001 _____ whole number

14. 9.2 _____ whole number

15. 0.5354 _____ whole number

16. 1.674 _____ hundredth

17. 9.247 _____ hundredth

18. 5.229 _____ hundredth

19. 2.42 _____ whole number

20. 6.4074 _____ tenth

GRADES 9-10

WEEK 19
Use R.A.C.E. Strategy for Math

Example:
Joshua has 32 donuts. He organizes them in boxes. Each box holds 12 donuts. How many boxes of donuts will Joshua have?

R (Restate the question) in your own words	Joshua will have ____ boxes of donuts.
A (Answer the question)	Joshua will have 3 boxes of donuts.
C (Cite the evidence)	I will determine how many boxes of 12 are required to fit all the donuts by dividing the number of donuts (32) by the number that can fit in each box (12). If I need part of a box I will round the solution up to the nearest whole number. 32 ÷ 12 = 2.666 Rounded up is 3
E (Explanation)	Joshua will have 3 boxes of donuts. I determined how many boxes of 12 are required to fit all the donuts by dividing the number of donuts (32) by the number that can fit in each box (12). Since I needed slightly more than two boxes, I rounded my solution to the nearest whole number.

WORD PROBLEMS

1. Mr. Brown plowed 6 acres in 1 hour. At this rate, how long will it take him to plow 21 acres?

2. The low temperature in Anchorage, Alaska today was −4°F. The low temperature in Los Angeles, California was 63°F. What is the difference between the two low temperatures?

3. The Robin's Nest Nursing Home had a fundraising goal of $9,500. By the end of the fundraiser, they had exceeded their goal by $2,100. How much did they raise?

TURN THE PAGE



QUESTION 1

R (Restate the question) in your own words	
A (Answer the question)	
C (Cite the evidence)	
E (Explanation)	

QUESTION 2

R (Restate the question) in your own words	
A (Answer the question)	
C (Cite the evidence)	
E (Explanation)	

QUESTION 3

R (Restate the question) in your own words	
A (Answer the question)	
C (Cite the evidence)	
E (Explanation)	

MAKE SURE THAT ALL YOUR WORK IS COMPLETED BEFORE YOU TURN IT IN.