**ANSWERS FOR SUSTAINABLITY SPARKLERS Part A**

ACTIVITY: FEEDING ROLES

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1.** | **Completed word** | **2.** | 1. |  |  |  |  |  | m | i | **c** | r | o | b | e |  |  |
| Consumer |  | 2. |  | h | e | r | b | i | v | **o** | r | e |  |  |  |  |
| Omnivores |  | 3. |  |  |  |  |  | f | u | **n** | g | i |  |  |  |  |
| Carnivore |  | 4. |  | o | r | g | a | n | i | **s** | m |  |  |  |  |  |
| Producers |  | 5. |  |  |  | p | r | o | d | **u** | c | e | r |  |  |  |
|  | Herbivore  |  | 6. |  |  |  |  |  |  | o | **m** | n | i | v | o | r | e |
|  |  |  | 7. |  | c | o | n | s | u | m | **e** | r |  |  |  |  |  |
|  |  |  | 8. | c | a | r | n | i | v | o | **r** | e |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **3.** | **Word** | **4.** | **word** | **5.** | **No.** | **Word** | **No.** | **Word** |
| organism |  | Parasite |  | 1 | Predator | 5 | Food chain |
| herbivore |  | Predator |  | 2 | Scavenger | 6 | Seagull  |
| bacteria |  | Symbiosis |  | 3 | Parasite | 7 | Microbe  |
| microbe |  | Scavenger |  | 4 | Decomposer  | 8 | Saprophyte  |
|  | consumer |  | Decomposer |  |  |  |  |  |
|  | omnivore  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **6**. | 1. |  |  | p | r | e | **d** | a | t | o | r |  |  |  |
|  | 2. |  |  |  | f | l | **e** | a |  |  |  |  |  |  |
|  | 3. |  |  |  | b | a | **c** | t | e | r | i | a |  |  |
|  | 4. |  | s | a | p | r | **o** | p | h | y | t | e |  |  |
|  | 5. |  |  |  | s | y | **m** | b | i | o | s | i | s |  |
|  | 6. |  |  |  |  |  | **p** | l | a | n | t |  |  |  |
|  | 7. |  |  |  |  | c | **o** | n | t | r | o | l |  |  |
|  | 8. |  | p | a | r | a | **s** | i | t | e |  |  |  |  |
|  | 9. |  | s | c | a | v | **e** | n | g | e | r |  |  |  |
|  | 10. |  |  | m | i | c | **r** | o | b | e |  |  |  |  |

**8**. WORD IS: ECOSYSTEM

**~~d e c o m p o s e r~~ p** Decomposer Flea

**c ~~e r o v i b r e h~~ a** Parasite Fungi

**o a E O Y n E C S S r** Scavenger Material

**n t ~~l a i r e t a m~~ a** Herbivore

**t T ~~b a c t e r i a~~ s** Community

**r M h a e l f ~~u n g i~~** control

**o ~~c o m m u n i t y~~ t** Chain

**l ~~r e g n e v a c s~~ e** Bacteria

ACTIVITY: LIVING IN THE BIOSPHERE

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **1.** | **No.** | **Word** | **2.** | **No.** | **Word** |
|  | 1 | Habitat |  | 1 | Population |
|  | 2 | Biotic |  | 2 | Ecology |
|  | 3 | Niche |  | 3 | Community |
|  | 4 | Environment |  | 4 | Adaptation |
|  | 5 | Species  |  | 5 | Ecosystem  |
|  | 6 | Organism  |  |  |  |

**3**.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. |  |  | s | p | e | c | i | e | **S** |  |  |  |
| 2. |  |  |  |  |  | a | d | a | **P** | t |  |  |
| 3. |  | e | c | o | s | y | s | t | **E** | m |  |  |
| 4. |  |  |  | b | i | o | t | i | **C** |  |  |  |
| 5. |  |  |  | o | r | g | a | n | **I** | s | m |  |
| 6. |  |  | b | i | o | s | p | h | **E** | r | e |  |
| 7. |  |  |  |  | r | o | l | e | **S** |  |  |  |

**4**. THE WORD IS **ENVIRONMENT**

~~b i o s p h e r e~~ h Area Survival

~~s u r v i v a l~~ a e Study Feature

t e g N a n o b r r Biosphere Role

u c a r V r i O t u Organism Earth

d a n I o t e c h t Community Place

y l i R a u N a h a Habitat

E p s t N E p M T e Niche

~~c o m m u n i t y~~ f Group

ACTIVITY: linking FEEDING ROLES

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1.** | **No.** | **Word** | **2.** | 1. |  | f | o | o | d | **c** | h | a | i | n |  |
|  | 1 | Resource |  | 2. |  |  | r | e | s | **o** | u | r | c | e |  |
|  | 2 | Food chain |  | 3. |  |  | a | n | i | **m** | a | l |  |  |  |
|  | 3 | Food web |  | 4. |  |  | t | r | o | **p** | h | i | c |  |  |
|  | 4 | Competition  |  | 5. |  | g | r | a | z | **e** |  |  |  |  |  |
|  | 5 | Graze  |  | 6. | c | o | m | p | e | **t** | i | t | i | o | n |
|  | 6 | Trophic  |  | 7. |  |  |  |  | w | **e** | b |  |  |  |  |
|  |  |  |  | 8. | p | l | a | n | t | **s** |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **3.** | **Correct word** |  |  |  | **f** |  |  |  |  |  |  |  |  |
|  | Species |  |  |  | **o** |  | **s** |  |  | **w** |  |  |  |
|  | Resource |  |  | **c** | **o** | **m** | **p** | **e** | **t** | **e** | **s** |  |  |
|  | Web |  | **r** |  | **d** |  | **e** |  |  | **b** |  |  |  |
|  | Feed |  | **e** |  |  |  | **c** |  |  |  |  |  |  |
|  | Food |  | **s** | **u** | **r** | **v** | **i** | **v** | **a** | **l** |  |  |  |
|  | Chain |  | **o** |  |  |  | **e** |  |  | **e** | **a** | **t** | **s** |
|  | Survival |  | **u** |  |  |  | **s** |  |  | **v** |  |  |  |
|  | Competes |  | **r** |  |  |  |  | **f** | **e** | **e** | **d** |  |  |
|  | Level |  | **c** | **h** | **a** | **i** | **n** |  |  | **l** |  |  |  |
|  | eats |  | **e** |  |  |  |  |  |  | **s** |  |  |  |

4. THE WORD IS **SPECIES**

~~c o m m u n i t y~~ Plant Survival

o h ~~f e e d~~ r n l Chain Animal

m ~~t a e~~ z o S a a Feed Graze

p o E i p a E l m Two Eat

e w C h n S r p i Community Web

t t i ~~w e b~~ I g n Trophic

~~e c r u o s e r~~ a Compete

P ~~l a v i v r u s~~ Resource

ACTIVITY: the hydrosphere

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1.** | **No.** | **Word** | **2.** | 1. |  |  |  | **h** | a | i | l |  |  |
|  | 1 | soft |  | 2. |  | e | v | **a** | p | o | r |  |  |
|  | 2 | Hydrosphere |  | 3. | h | y | d | **r** | o |  |  |  |  |
|  | 3 | Condensation |  | 4. | h | a | r | **d** |  |  |  |  |  |
|  | 4 | Precipitation  |  | 5. |  | d | e | **w** |  |  |  |  |  |
|  | 5 | Carbonate |  | 6. |  |  | c | **a** | l | c | i | u | m |
|  | 6 | Hard  |  | 7. | s | o | f | **t** |  |  |  |  |  |
|  |  |  |  |  | w | a | t | **e** | r |  |  |  |  |
|  |  |  |  |  |  |  |  | **r** | a | i | n |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **3.** | **No.** | **Word** | **4.** | **COMPLETE WORD** |
| 1 | Saltly |  | Permeable |
| 2 | Impermeable |  | Salinity |
| 3 | Aquifer |  | Dehydrate |
| 4 | Dehydrate  |  | Aquifer |
| **5** | Saturated |  | Ground |
|  | 6 | permeable |  | saturated |
|  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |  |  |  |  |  |  |  |  |  |  |
| **5**.  | **Correct word** |  |  |  |  |  |  |  |  |  |  |  | **t** |  |
|  | water |  |  |  |  |  |  | **s** | **n** | **o** | **w** |  | **a** |  |
|  | table |  |  |  |  | **e** |  |  |  |  | **a** |  | **b** |  |
|  | cycle |  |  | **c** |  | **a** |  |  |  |  | **t** |  | **l** |  |
|  | hydrosphere |  | **h** | **y** | **d** | **r** | **o** | **s** | **p** | **h** | **e** | **r** | **e** |  |
|  | hard |  |  | **c** |  | **t** |  |  |  |  | **r** |  |  |  |
|  | rock |  |  | **l** |  | **h** | **a** | **r** | **d** |  |  |  |  |  |
|  | snow |  |  | **e** |  |  |  | **o** |  |  |  |  |  |  |
|  | calcium |  |  |  |  |  |  | **c** | **a** | **l** | **c** | **i** | **u** | **m** |
|  | earth |  |  |  |  |  |  | **k** |  |  |  |  |  |  |

**6**. THE WORD IS **SATURATE**

 A T ~~r u o p a v~~ s e w soft hydrosphere

d r ~~p e r m e a b l e~~ rock permeable

n l a w f t l A R b d rain salinity

u d i i a i f r E a r table carbonate

o r S a n t u o o t a hail ground

r y U i h T e q s c h dew aquifer

g ~~e t a n o b r a c~~ k dry vapour

~~h y d r o s p h e r e~~ water hard

Activity: ENERGY RESOURCES

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **1.** | **No.** | **Word** | **2.** | **No.** | **Word** |
|  | 1 | Non-renewable |  | 1 | Biomass |
|  | 2 | Turbine |  | 2 | Geothermal |
|  | 3 | Solar |  | 3 | Fossil |
|  | 4 | Resource  |  | 4 | Nuclear  |

**3**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | l | i | g | h | **t** |  |  |  |  |  |
| 2. | g | e | o | t | **h** | e | r | m | a | l |
| 3. |  |  |  | h | **e** | a | t |  |  |  |
| 4. |  |  | t | u | **r** | b | i | n | e |  |
| 5. |  | b | i | o | **m** | a | s | s |  |  |
| 6. |  | s | o | l | **a** | r |  |  |  |  |
| 7. |  | c | o | a | **l** |  |  |  |  |  |
| 8. |  |  |  |   | **p** | l | a | n | t | s |
| 9. |  |  |  | f | **o** | s | s | i | l |  |
| 10. | h | y | d | r | **o** |  |  |  |  |  |
| 11. |  | n | u | c | **l** | e | a | r |  |  |
| 12. |  |  | w | a | **s** | t | e |  |  |  |

**4**. THE WORD IS **RADIOACTIVE**

|  |  |  |
| --- | --- | --- |
| **~~g e o t h e r m a l~~****r A V y l a E I T t****a O d a e d l C n e****l r o l D i n u I n****o c c ~~f o s s i l~~ g****s u ~~s t e a m~~ A w a****n R ~~s s a m o i b~~ m****~~l a c i r t c e l e~~** | geothermalelectricalbiomassfossilmagnetnuclearsunoilhydro  | windsolarcoal |

 |   |

ACTIVITY: acids and bases

|  |  |  |
| --- | --- | --- |
| **1.** | 1 | Base  |
|  | 2 | Pink  |
|  | 3 | Organic  |
|  | 4 | Litmus  |
|  | 5 | Alkali  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2. |  |  | N  |  e | **U** | t | r | a | l | **3.** |  |  |  |  |  |  |  |  |  |  |  |
|  | o | r | g | a | **N** | i | c |  |  |  | **f** | **o** | **r** | **m** |  |  | **c** |  |  |  | **b** |
|  |  |  |  | l | **I** | t | m | u | s |  |  |  |  | **e** |  |  | **h** |  | **r** |  | **a** |
|  |  | a | b | o | **V** | e |  |  |  |  |  |  |  | **t** |  |  | **l** |  | **e** |  | **s** |
|  |  |  |  | b | **E** | l | o | w |  |  |  |  | **c** | **a** | **r** | **b** | **o** | **n** | **a** | **t** | **e** |
|  |  | h | y | d | **R** | o | g | e | n |  |  |  |  | **l** |  |  | **r** |  | **c** |  |  |
|  |  |  |  |  | **S** | a | l | t |  |  |  | **a** |  |  |  |  | **i** |  | **t** |  |  |
|  |  |  |  | b | **A** | s | e |  |  |  |  | **c** |  |  | **c** |  | **d** |  | **s** |  |  |
|  |  |  |  | b | **L** | u | e |  |  |  | **n** | **i** | **t** | **r** | **a** | **t** | **e** |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | **d** |  |  | **n** |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | **g** | **a** | **s** |  |  | **c** | **a** | **r** | **b** | **o** | **n** |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **e** |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | **s** | **a** | **l** | **t** |  |  |  |  |  |

**4**. THE WORD IS **INDICATORS**

**~~u n i v e r s a l~~ n**

**a ~~e l b u l o s~~ a e**

**b l S A n r t u r g**

**a N k e g r C m t o**

**s D v a o O T t u r**

**e e n n l ~~n o i~~ e d**

**s i g R I i I l n y**

**c ~~e d i x o r d y h~~**

universal alkali neutral hydroxide hydrogen organic soluble seven base litmus strong ion

ACTIVITY: putting it all together

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | **f** |  | **h** |  |  |  |  |  |  |  | **p** |  |  | **w** | **e** | **b**  |  |  |
|  |  |  | **u** |  | **a** | **d** | **a** | **p** | **t** | **a** | **t** | **i** | **o** | **n** | **s** |  | **n** |  |  |  |
|  |  |  | **n** |  | **b** |  |  |  |  |  |  |  | **p** |  |  |  | **z** |  |  |  |
|  |  |  | **g** |  | **i** |  |  |  | **c** | **o** | **m** | **m** | **u** | **n** | **i** | **t** | **y** |  |  |  |
|  |  | **b** | **i** | **o** | **t** | **i** | **c** |  |  |  |  |  | **l** |  |  |  | **m** |  |  | **p** |
|  |  |  |  |  | **a** |  |  |  |  |  | **g** | **r** | **a** | **z** | **e** |  | **e** |  |  | **h** |
|  | **p** | **l** | **a** | **n** | **t** | **s** |  | **t** |  | **d** |  |  | **t** |  |  |  |  |  |  | **o** |
|  |  |  |  |  |  |  |  | **r** |  | **e** | **n** | **v** | **i** | **r** | **o** | **n** | **m** | **e** | **n** | **t** |
|  |  |  | **n** |  |  |  |  | **o** |  | **c** |  |  | **o** |  |  |  |  |  |  | **o** |
|  | **a** | **n** | **i** | **m** | **a** | **l** |  | **p** |  | **o** |  |  | **n** |  |  |  |  | **s** |  | **s** |
|  |  |  | **c** |  |  |  |  | **h** |  | **m** |  |  |  |  |  | **h** |  | **y** |  | **y** |
|  | **c** |  | **h** |  |  |  |  | **i** |  | **p** |  |  |  |  |  | **e** |  | **m** |  | **n** |
| **r** | **o** | **l** | **e** |  |  | **m** | **i** | **c** | **r** | **o** | **b** | **e** | **s** |  |  | **r** |  | **b** |  | **t** |
|  | **n** |  |  |  |  |  |  |  |  | **s** |  |  |  |  |  | **b** |  | **i** |  | **h** |
|  | **s** | **a** | **p** | **r** | **o** | **p** | **h** | **y** | **t** | **e** |  | **c** | **a** | **r** | **n** | **i** | **v** | **o** | **r** | **e** |
|  | **u** |  |  |  |  |  |  |  |  | **r** |  |  |  |  |  | **v** |  | **s** |  | **s** |
| **o** | **m** | **n** | **i** | **v** | **o** | **r** | **e** |  |  |  |  |  |  |  |  | **o** |  | **i** |  | **i** |
|  | **e** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **r** |  | **s** |  | **s** |
| **o** | **r** | **g** | **a** | **n** | **i** | **s** | **m** |  | **p** | **a** | **r** | **a** | **s** | **i** | **t** | **e** |  |  |  |  |