



Paquete de Actividades de Maggie

Nombre _____

Dunas costeras

Maggie fue a la playa. Ella vio un cartel que decía: "Mantente alejado de las dunas". Las dunas son montículos de arena que se encuentran en la parte



trasera de la playa. El viento sopla la arena hacia allá. Habían plantas en las dunas. Las plantas mantenían la arena en su lugar. Caminar sobre las plantas las mataría. Sin las plantas, la arena se iría volando y no habría más dunas. No habría nada para detener los vientos y las olas peligrosas.

Maggie hizo lo que decía el cartel. Encontró un camino establecido que pasaba por las dunas de la playa.

Instrucciones: En la búsqueda de palabras a continuación, marque con un círculo las siguientes palabras que formaron parte de la lectura:

playa, dunas, montículos, plantas, arena, viento

E Y R R I T P W J X U O Q K O
G Q L M O N T I C U L O S V O
R D F G M B U X B B O B O I R
L F R S Q Q O O P E M Q W T Y
D K C H E K H J C D O I S W E
U A P H K Q P S H J G Y H C S
N P H L X E Z P L A Y A A I R
A L V A A R I W A T O U R Y T
S V I G J N C J V M U B E Z T
A H E I A K T Z O E P M N G U
S Y N Q V J L A B E A O A D N
E Z T P K D E B S H R A C Z V
D K O T T Y D D Y P F W J F F
S N U Z N Q T M X K K S J H V
Q J Y X M I J D N W U S T Z M

TEACHER GUIDE

Activity At-A-Glance:

Plants that live on coastal dunes are adapted to live in harsh conditions. However, they are very susceptible to damage by human interactions. Just one vehicle or a couple of pedestrians can kill a few strips of vegetation, enough to destabilize the dunes. It may not take long for wind and water to erode the more barren (and now looser) sand and create a pathway for floodwaters to move inland and cause even more erosion. Dunes are built up and down naturally, often seasonally. Vegetation that grows on the dunes helps to minimize the range of this erosion and deposition by holding on to sand with their roots. Adapted for dry conditions in sand with poor water-retention, these plants have thick but brittle stalks. Ironically, what protects them in nature is a liability for human interactions, as these stalks easily break off with just a little pressure from a foot or a tire. Cities like Miami Beach now realize that having so many residents living on the beach had disastrous effects on dunes. In 2014, the city developed the Miami Beach Coastal Dune Management Plan to try to minimize any future harmful effects.

Standards:

- Next Generation Science Standards (NGSS):
 - K-PS2.B Types of Interactions [DCI]
 - K-ESS3.C Human Impacts on Earth Systems [DCI]
 - K-ESS3 Cause and Effect [Crosscutting Concept]
- Common Core State Standards (CCSS) for ELA:
 - RI Key Ideas and Details

Answer Key: Instrucciones: En la búsqueda de palabras a continuación, marque con un círculo las siguientes palabras que formaron parte de la lectura: *playa, dunas, montículos, plantas, arena, viento*

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G Q L M O N T I C U L O S V O
R D F G M B U X B B O B O I R
L F R S Q Q O O P E M Q W T Y
D K C H E K H J C D O I S W E
U A P H K Q P S H J G Y H C S
N P H L X E Z P L A Y A A I R
A L V A A R I W A T O U R Y T
S V I G J N C J V M U B E Z T
A H E I A K T Z O E P M N G U
S Y N Q V J L A B E A O A D N
E Z T P K D E B S H R A C Z V
D K O T T Y D D Y P F W J F F
S N U Z N Q T M X K K S J H V
Q J Y X M I J D N W U S T Z M

Take it Outdoors:

Take students to a sandy area outside. Find or place a rock in the middle of the sandy area. Make sure the sand is loose or have students loosen up the sand by doing a little digging. The surface of the sand should be smooth as well. Have students take turns blowing some sand through a straw, toward the rock. A sand dune will form on the “windward” side of the rock. Note: This can also be set up and done in a shallow pan using play sand.

References:

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