



Water Drops

Science Fun For Kids

Summer 1997

BEACH WATER POLLUTION



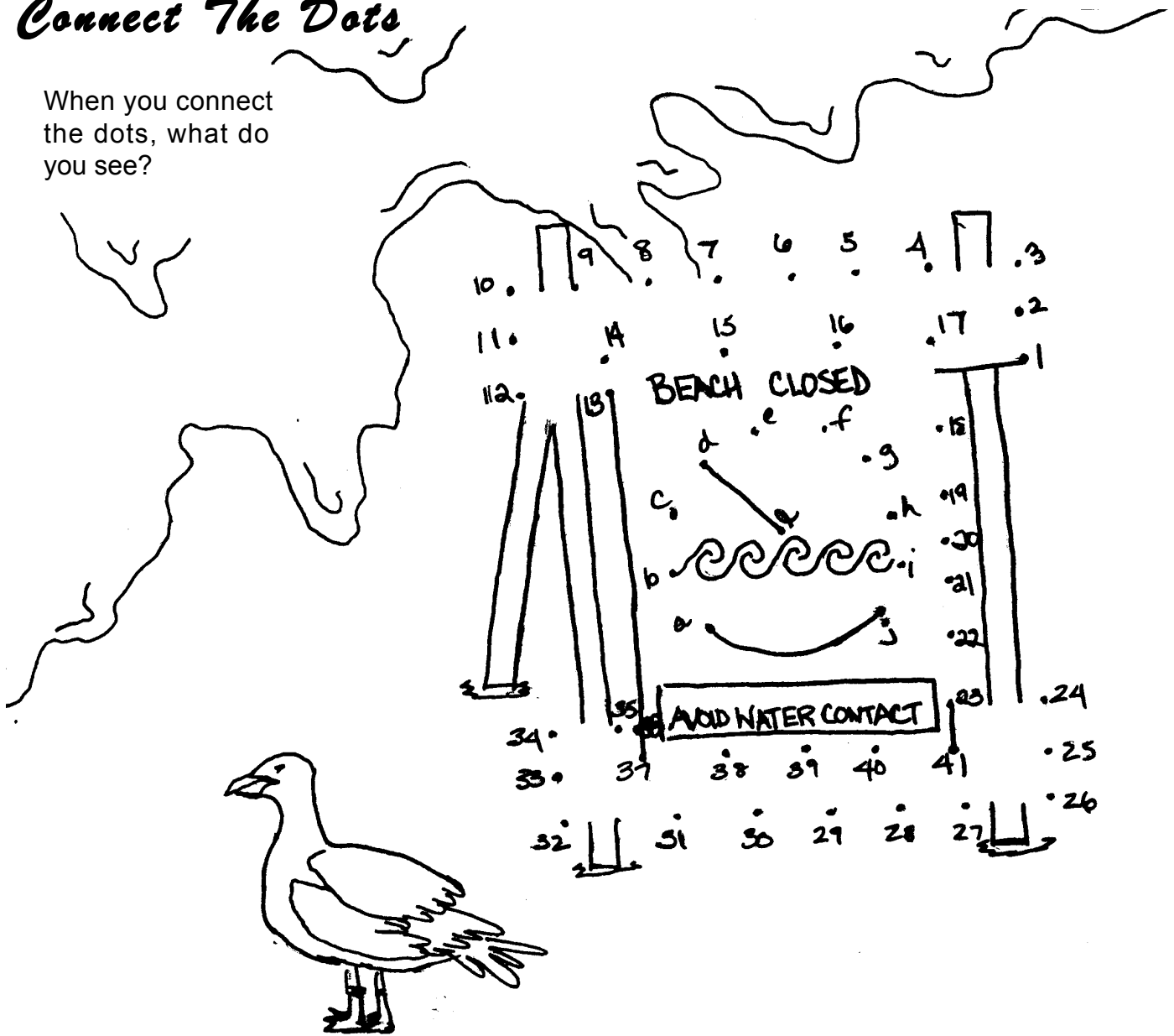
Have you ever been to the beach and seen a "No Swimming" or pollution warning sign? If so, then you have seen what can happen when beach water becomes polluted. Beach water can be polluted by harmful microorganisms, or pathogens, such as viruses and bacteria. Sometimes it is hard to tell when these microorganisms are present in the water. That is why local health and environmental officials test and monitor beach water quality. Beaches in the United States are closed for swimming or a beach warning sign is posted if beach water quality tests show that unhealthy levels of pathogens are present in the water.

Sources of Beach Water Pollution

Sewage treatment plant and septic system malfunctions and storm water runoff all contribute to beach water pollution. When sewage systems overflow, untreated or partially treated waste is dumped into nearby waterways. The waste flows downstream and can contaminate water at the beach. Heavy rainfall can also contribute to beach water pollution. As rain or storm water washes over our lawns, farms, and streets, it picks up animal waste, fertilizer, pesticides and trash and transports them through storm drains into local beach waterways. This waste often carries with it pathogens - agents that cause disease - such as bacteria and viruses. If beach water quality tests indicate that unhealthy levels of pathogens are present in the water then local health officials may close the beach.

Connect The Dots

When you connect the dots, what do you see?



Unscramble the Following Words

1. acebiart

2. tawariner

3. suvir

4. rewat ilquaty

5. gewase

6. namicgromoris

7. nocipretto

9. notpegah

10. ginsmmiw

8. romts radin

Beach Water Pollution Matching Fun

How many beach water pollution words do you know? Match the following:

<p>BEACH</p> <p>STORM DRAIN</p> <p>POLLUTION</p> <p>RAINWATER</p> <p>MICROORGANISM</p> <p>TRASH</p> <p>SEWAGE</p> <p>FISH</p> <p>SHELLS</p> <p>BACTERIA</p> <p>PATHOGEN</p> <p>MONITORING</p>
<p>1 _____ The sand, pebbles or rocks on a shore.</p> <p>2 _____ Contamination of air, soil, or water by the release of harmful substances.</p> <p>3 _____ Water that falls from clouds to the earth.</p> <p>4 _____ The outer covering of an organism found in the water.</p> <p>5 _____ A cold-blooded water animal having a backbone, fins, and gills for breathing.</p> <p>6 _____ A pipe for removing rainwater or sewage.</p> <p>7 _____ An agent that causes disease.</p> <p>8 _____ Liquid or solid waste carried off with groundwater into sewers or drains.</p> <p>9 _____ To keep watch, caution.</p> <p>10 _____ A microscopic pathogen.</p>

Answer Key: 1. Beach 2. Pollution 3. Rainwater 4. Shells 5. Fish 6. Storm Drain 7. Pathogen 8. Sewage 9. Monitoring 10. Bacteria

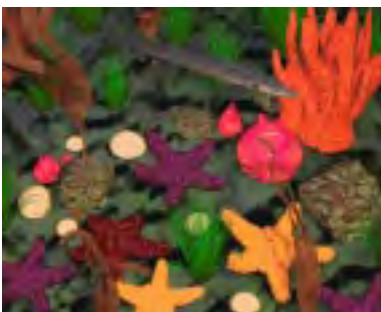
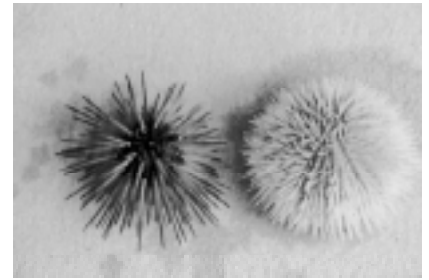
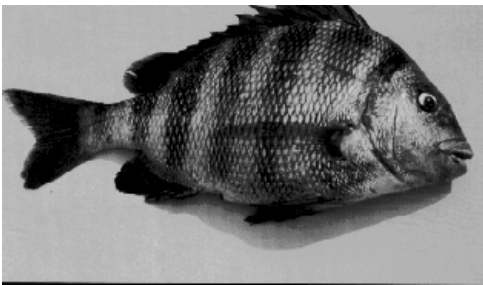
Word Find Find things that you can do or collect at the beach.

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

Crabbing, Fishing, Sailing, Surfing, Sunbathing, Swimming, Volleyball, Seashells, Seaweed, Sand

Scavenger Hunt

The next time you go to the beach, see how many of these beachdwellers you and a friend can identify.



How to Protect Yourself from Swimming in Contaminated Beach Water

- Avoid swimming in beach water after a heavy rain.
- Look for storm drains along the beach. Don't swim near them.
- Look for floating trash and other visible signs of pollution. Microorganisms may have washed in the water with these items.
- If you think the beach water is contaminated, contact your local health official.