

OIL PENETRATION LAB

Name _____ Date _____

- 1. What will happen when each substance is poured into the different kinds of sediment? Write a hypothesis, an educated guess.

- 2. Explain your hypothesis. Why do you think this will happen?

- 3. Describe what happened. Was your hypothesis right?

- 4. Write a conclusion that explains which areas in PWS will be more sensitive.

TANKER LEAK LAB

Name _____ Date _____

Your team has just received word of a tanker leaking oil in the Pacific Ocean. How will you use your resources to effectively clean up the oil and prevent it from spreading?

1) Which do you think is denser, oil or water?

2) What do you think will happen to the oil as it spills out of a tanker into the ocean?

3) What special problems arise if an oil spill occurs in the open ocean, on a rocky coast, or near a sandy beach? (Hint: think about things like currents, surface area, and habitat for wildlife) Describe how you would deal with an oil spill in these different locations in the chart below.

Oil Spill Site	Special Problems	Possible Strategies for Cleanup
Open Ocean		
Rocky Coast		

Sandy beach		
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4) What are some direct effects of oil on animals?

5) What are some indirect effects of oil on animals?

6) How does the timing of an oil spill affect animals?

SEASONAL OIL SPILL EFFECTS ON HABITAT WORKSHEET

Name _____ Date _____

What happens when oil spills during different seasons? Use the following words below to complete the sentences and find out.

Word Bank

response equipment, estuaries, boom, migration, eggs, layover, vulnerable, deformed, overwintering, hatchlings, spawn, mousse

It is fall and school has begun. Birds are beginning their journey south, salmon are still returning to _____ in streams and _____. If oil is spilled in this season, it will affect salmon _____ and make it difficult for birds to reach their _____ site.

Snow has fallen and the lakes are frozen. A tanker has spilled oil. A major winter storm created a _____ and this oil weathering has made it difficult to contain with _____. A _____ tried to trap the oil, but the water was too rough for it to work. Response efforts were ineffective.

Snow is melting and birds are returning from the south. Herring are laying eggs in the intertidal zone on vegetation. If oil spills in this season, it could cover herring eggs, causing some of them to die or hatch _____. Salmon fry are _____ and find it difficult to find food to survive. Birds are journeying back and stopping at _____ sites. Under the oil, it's hard to find food for them to continue their _____ north.

School is out, fishing season has begun, and flowers are blooming. If an oil spill happens now, salmon are returning to _____, and birds are laying their eggs. Their _____ are at risk if they are covered in oil. Salmon may have trouble finding a place to lay their eggs.