

STUDENT ACTIVITY SHEET - *SITE 1* (Advanced)

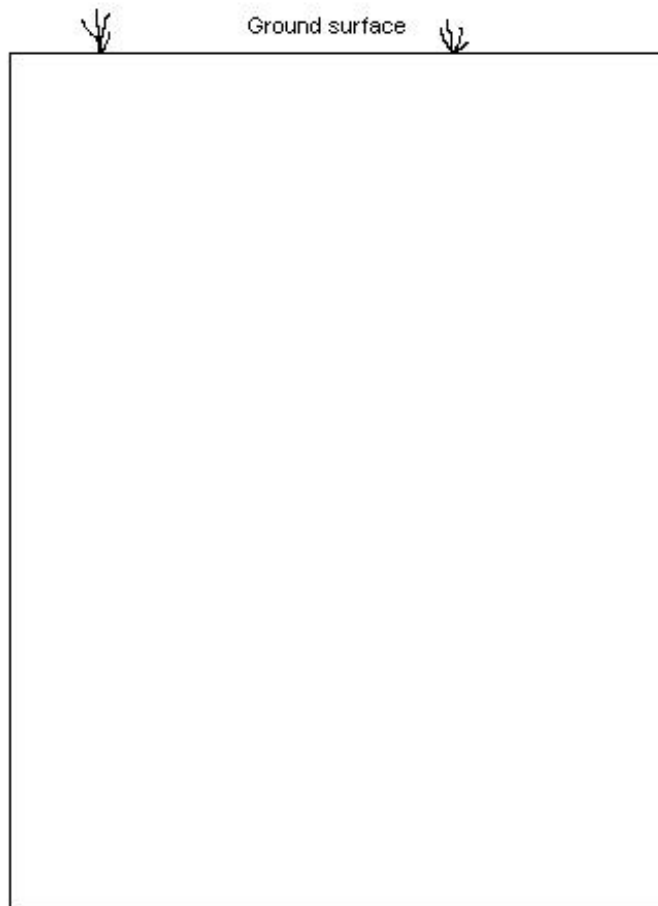
Name: _____

Date: _____

Title: WHY ARE THE SOILS DIFFERENT?

SITE 1: fill in the blank soil profile below by drawing in the boundary between any layers, and labelling them Layer 1, Layer 2, etc. For each layer write down the:

- colour (e.g. grey, red, white)
- acidity test number (e.g. 7, 6.5)



STUDENT ACTIVITY SHEET - *SITE 1* (Advanced)

Name: _____

Date: _____

QUESTIONS:

1. Circle the word that best describes the boundary between the upper and lower layers.

Sharp

Gradational

Diffuse

2. What does this type of boundary tell you about the profile?

3. Do the soil layers have different colours, textures and pH values? (circle one)

YES

NO

4. Why do you think this might be?

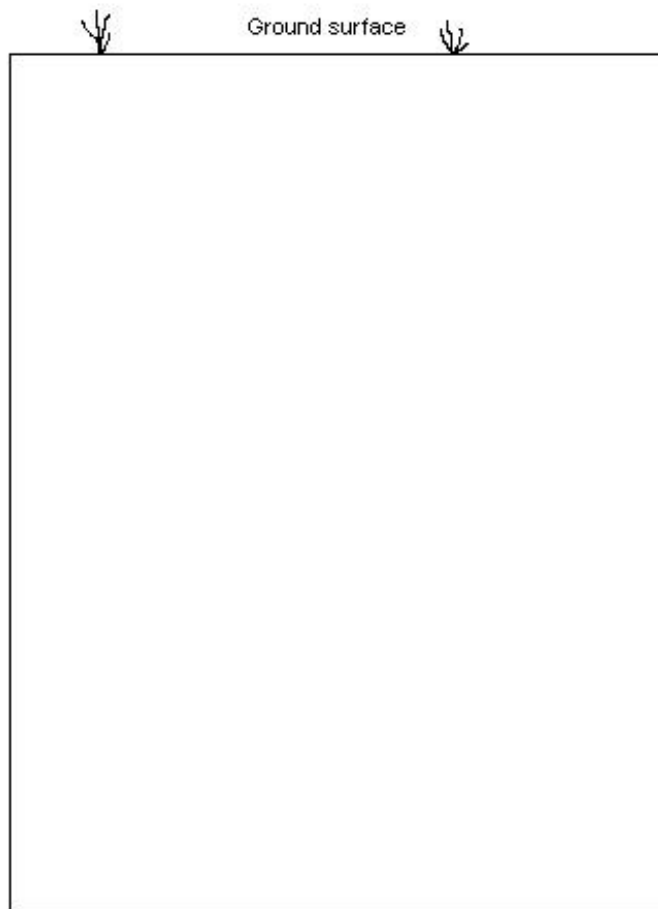
1. According to the acidity number you measured in the bottom layer, which type of plant/s would grow best in this soil? Draw a line down the page across the big arrow to find out the answer/s.

STUDENT ACTIVITY SHEET - *SITE 2* (Advanced)

Title: WHY ARE THE SOILS DIFFERENT?

SITE 2: fill in the blank soil profile below by drawing in the boundary between any layers, and labelling them Layer 1, Layer 2, etc. For each layer write down the:

- colour (e.g. grey, red, white)
- acidity test number (e.g. 7, 6.5)



STUDENT ACTIVITY SHEET - SITE 2 (Advanced)

Name: _____

Date: _____

QUESTIONS:

1. Circle the word that best describes the boundary between the upper and lower layers.

Sharp

Gradational

Diffuse

2. What does this type of boundary tell you about the profile?

3. Do the soil layers have different colours, textures and pH values? (circle one)

YES

NO

4. Why do you think this might be?

5. According to the acidity number you measured in the bottom layer, which type of plant/s would grow best in this soil? Draw a line down the page across the big arrow to find out the answer/s.

STUDENT ACTIVITY SHEET - SITES 1 & 2 (Advanced)

Texture of a soil - Why not feel the difference?

Name: _____

Date: _____

Make sure you place newspaper on your desks as this activity can get really messy!

- Look at the two soil samples taken at SITE 1.
- Using the key on the following page, classify your soil depending on how the soil feels.
- First you will work out the texture for the top layer of the soil (A-horizon), then the texture of the bottom layer (B-horizon) of the soil.
- Do the same for the soils at SITE 2.
- Fill in the table on the activity sheet with your answers.

In the table below, write down the textures for each of the soil.

Site 1		Site 2	
Top layer		Top layer	
Bottom layer		Bottom layer	

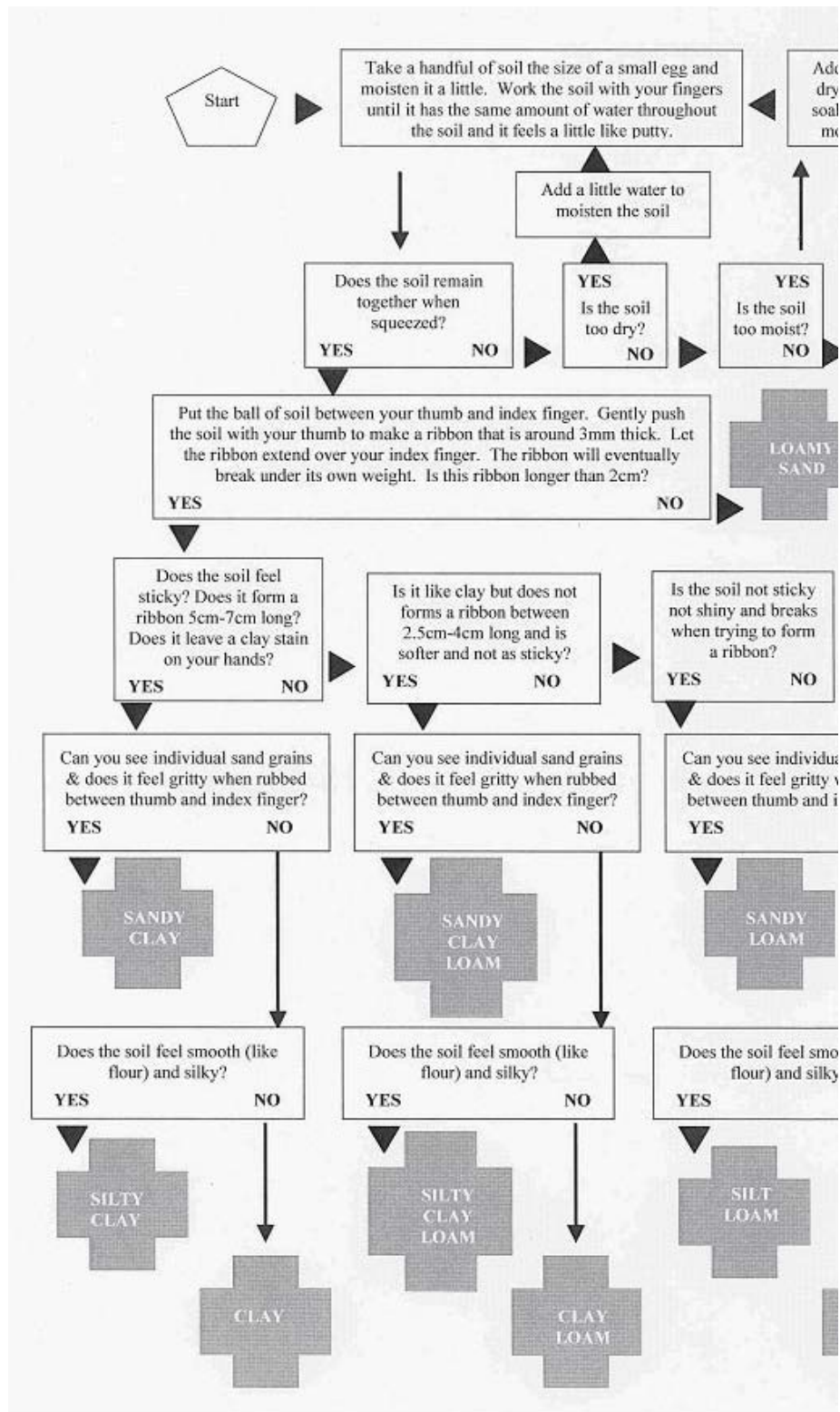
QUESTIONS:

1. Do you see a pattern emerging between the top and bottom horizons at each site?

Think about the texture of other soils that you might have seen.

2. Which soil particle size are you mostly likely to see at the beach?
(Hint: You when you see a wave come up over the beach you will notice that the water quickly sinks in and drains away.)

3. Cricket pitches are made of a special type of clay. This gives the pitch desirable characteristics. Write down what you think they might be.



STUDENT ACTIVITY SHEET - SITES 1 & 2 (Advanced)

Name: _____

Date: _____

4. River flats are often a very good place to grow vegetables. The soil on the edge of a river has been washed there by water when the river floods. What components in the soil make it so productive?

FURTHER QUESTIONS:

Compare the two profiles.

1. Why might there be differences between the two soil profiles in terms of boundary types, colours and pH values? Does this have anything to do with where the profiles are in the landscape?

2. How might any differences in landscape position and drainage influence the types of vegetation that grow in these soils?
