

**Activity Title:**

# How do people affect beaches?

## Focusing questions

How do people affect beaches?

What actions have people (individuals, groups and community) taken to protect dunes?

## Resources required

- DVD/Video – Part three (video time 7.11 – 12.22)
- Worksheet – How do people affect beaches? – page 191
- Teacher answer sheet for the worksheet – How do people affect beaches? – page 192
- Copying: copy sufficient worksheets – How do people affect beaches? for one per copy per student or one digital image

## Prior learning

2j Species lost from the beach

3b Parts of the beach and human activities

3d New Zealanders and the beach

4a Importance of sand dunes

5a The past – how have people affected beaches?

## Method

- 1 The objective of this activity is to begin to explore how people affect beaches.
- 2 Watch the final section of the DVD about people's impact on beaches. Complete the worksheet while watching the DVD for a second time.
- 3 Use the teacher answer sheet to review worksheet answers.
- 4 Reflection:
  - What are some of the positive and negative impacts you and your friends, whanau or family have on our local sand dunes?

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How do people affect beaches?

**Environmental Education Aspect:**

About and For/With the environment

**Environmental Education Concept:**

- Personal and social responsibility for action
- Sustainability
- Interdependence

**Curriculum Links:**

- Social Science

**Suggested Curriculum Level:**

Any

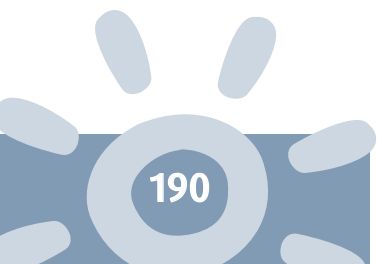
**SUSTAINABILITY TIP!**

Project a digital image of the worksheet and save paper.



## Possible next steps

- 5c Positive and negative beach use posters – reinforcing and summarising key points from this activity, 5c is a simple visual interpretation activity where students interpret positive and negative beach uses from two beach use posters.
- 5i Impacting interconnectedness – a game exploring what interconnections exist between biotic and abiotic factors of the dune environment and how these interconnections can be affected and altered by human and natural induced changes.



Worksheet

# How do people affect beaches?

People can have a major impact on the beach in a relatively short period of time and unfortunately this impact is not always positive.

The DVD shows how people have affected the beach environment. Watch carefully and answer the following questions:

1 Describe five examples of damage caused by humans to beaches and dunes.

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_
- 5 \_\_\_\_\_

2 Why have dunes been bulldozed?

\_\_\_\_\_

3 Where in the dunes is it not safe to build roads and houses?

\_\_\_\_\_

4 Why is there more natural damage to the dunes during the winter months?

\_\_\_\_\_

5 Why is there more human-induced damage to the dunes during the summer months?

\_\_\_\_\_

6 What impact does human-induced erosion have on the cut and fill cycle?

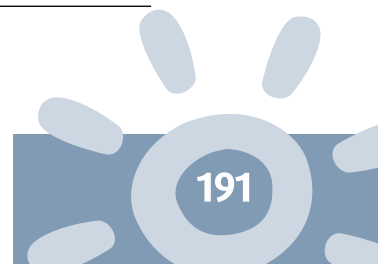
\_\_\_\_\_

7 What actions can people make to prevent the sand dunes from eroding?

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_

8 Describe a dune system that will be most resistant to erosion.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



# How do people affect beaches?

People can have a major impact on the beach in a relatively short period of time and unfortunately this impact is not always positive.

The DVD shows how people have affected the beach environment. Watch carefully and answer the following questions:

- 1 Describe five examples of damage caused by humans to beaches and dunes.**
  - 1 DUNES BULLDOZED AWAY FOR SHOPS AND CARPARKS
  - 2 HOUSES AND ROADS HAVE BEEN BUILT RIGHT ON TOP OF DUNES
  - 3 WALKING ON DUNE PLANTS (WALKING/TRAMPLING)
  - 4 SANDBOARDING ON DUNES
  - 5 BUILDING SEAWALLS
- 2 Why have dunes been bulldozed?**

TO MAKE WAY FOR SHOPS, HOUSES AND CARPARKS
- 3 Where in the dunes is it not safe to build roads and houses?**

RIGHT ON TOP OF THE DUNES (FRONT DUNES)
- 4 Why is there more natural damage to the dunes during the winter months?**

NORMALLY, STORMS ARE MORE FREQUENT IN WINTER
- 5 Why is there more human-induced damage to the dunes during the summer months?**

BEACHES ARE FLOODED WITH PEOPLE IN SUMMER
- 6 What impact does human-induced erosion have on the cut and fill cycle?**

IT PREVENTS THE REPAIR OF DUNES BY ALLOWING THE SAND TO BLOW AWAY. IT REDUCES THE RESERVOIR OF SAND
- 7 What actions can people make to prevent the sand dunes from eroding?**
  - 1 HELP PLANT DUNE PLANTS
  - 2 USE BEACH ACCESSWAYS
  - 3 JOIN A COAST CARE GROUP AND LEARN MORE!
- 8 Describe a dune system that will be most resistant to erosion.**

A DUNE WITH HEALTHY FUNCTIONING NATIVE DUNE PLANTS GROWING DOWN THE DUNE FACE  
A DUNE WITH FORMALISED ACCESSWAYS TO MINIMISE PLANT DAMAGE  
A DUNE WHERE ALL DEVELOPMENT IS A SAFE DISTANCE AWAY FROM THE SEA