

**Activity Title:**

# Photo montage – human impact on dunes

**Focusing question**

What human activities impact on the sandy beach and dune system?

**Resources required**

- PowerPoint presentation – 5d A photo montage of human impact
- Table for recording photo montage answers – page 199
- Teacher notes – Photo montage sample answers – page 200
- Copying: copy the tables for recording answers – one per student group or project digital image and have students create their own.

**Prior learning**

- 2j Species lost from the beach
- 3a Changing New Zealand beach use
- 3b Parts of the beach and human activities
- 3d New Zealanders and the beach
- 5b How do people affect beaches?
- 5c Positive and negative beach use posters

**Method**

- 1 The objective of this activity is to consider in more depth some of the positive and negative impacts people have on beaches.
- 2 Review the PowerPoint presentation **5d A photo montage of human impact**.
- 3 Break students into small groups. Give each group a copy of the table for recording photo montage answers. Tell students they should be prepared to justify their choices. For level 4 and above, students could create their own table with five columns with the following headings:
  - i. Beach uses
  - ii. Positive (such as photo 34)
  - iii. Negative (such as photo 9 or 10 rock walls)
  - iv. Explanation (why this activity is positively or negatively categorised)
  - v. Rectifying Action (what action could be taken to prevent the negative impact or enhance the positive impact of each use).

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**Environmental Education Aspect:**

About the environment

**Environmental Education Concept:**

- Interdependence
- Sustainability

**Curriculum Links:**

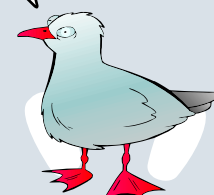
- Social Science
- Science

**Suggested Curriculum Level:**

Any

**SUSTAINABILITY TIP!**

Project a digital image of the table for student groups to copy onto scrap or recycled paper – and save paper!



- 4 Show the PowerPoint presentation, allowing time for each group to record their answers.
- 5 Once all photos have been categorised, go back through the photo montage images and discuss each photograph as a class. Each group reports how they categorised the photograph. As a class consider:
  - Were there any differences in categorisation between the groups?
  - If so, why did groups categorise photos the way they did?
- 6 Record the list of positive and negative human impacts in exercise books.
- 7 Reflect on your learning about sand dunes and the way human beings in Aotearoa have impacted on them. In this context discuss the following proverb:

*Whatu ngarongaro he tangata, toitū he whenua.  
Human beings disappear but the land remains.*

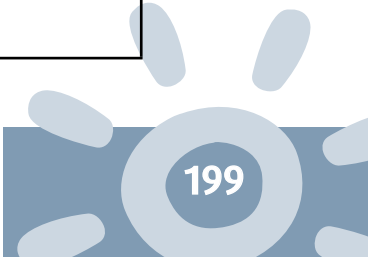
### Possible next steps

- Discuss the pros and cons of residential subdivisions along the coast. Are they a good thing? (Where should they be located – how far back from the sea? Consider as part of the discussion whether residential housing benefits dunes more than farms?)
- 5e Current issue case study – this activity takes one contemporary activity that is impacting on dunes and investigates it in more depth.
- 5f Beach traffic survey – a practical field activity investigating the diversity and quantity of traffic on local beaches and sand dunes.

Table for recording  
**Photo montage answers**

Working in groups, use the photo montage to fill in the grid below:

| Beach uses | Positive (photo number) | Negative (photo number) |
|------------|-------------------------|-------------------------|
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# Photo montage sample answers

## Positive and negative uses of the beach

### Positive

- Build houses and roads on the back dunes
- Use walkways and accessways
- Re-plant dune plants
- Build fences to protect plants
- Apply fertiliser to native plants
- Dispose of stormwater onto land
- Pull out pest plants
- Remove pest animals

### Negative

- Build houses and roads on front dunes
- Walk on dune plants
- Ride horses on dunes
- Ride motorbikes on dunes
- Drive car on dunes
- Dispose of stormwater on the dunes
- Dump garden waste on the dunes
- Sand mining
- Sand boarding

