



General instructions to students:

- 1. Note the main RISKS at the site when you arrive.
- 2. Respect the geological code of conduct at all times, do not disturb wildlife, close gates, do not remove rocks/fossils or sand from the site.
- 3. Before leaving transport, check that you have suitable clothing and footwear and the equipment to record your field observations:
 - ✔ Pencils
 - ✓ Clipboard
 - ✓ Task sheet
- 4. Stay close to your teacher/supervisor at all times.
- 5. Try and complete your observations in as much detail as possible. Listen to the teacher as they explain what you are looking at and ask questions if you are unsure about any aspects of the site.

Tasks to be completed:

Task	Description	Completed (tick)
	a) Examine the risks/hazards at this site and note these down b) Describe how they might be reduced	
1	 a) Identify the raised shoreline. Look at the rocks, what evidence is there that they have been polished by water? b) Estimate approximately how high above present sea level you are. How many years ago do you think the sea level was this high? c) Describe how potholes are formed. Do you see any other evidence in the surrounding bedrock that water flowed here? 	
2	a) Take a good look at the granite that forms Torghatten (tips: you can see it very well at the stairs). How many different minerals can you identify in the granite? Note characteristics such as color, grain size and appearance.b) How old is this granite? What ocean existed when it formed?	
3	a) Stop and look up at the mountainside above you. How many fractures can you see? Can you identify any larger ones? Are the fractures located in any specific direction?b) How do you think the fractures are formed?c) Make a sketch of the fractures noting key features.	
4	a) Estimate the height, length and width of the Torghatten hole. b) Look through the hole. How many islands can you see? If possible, identify and name the islands. c) Make a sketch of the archipelago you see through the Torghatten hole.	
5	a) Before entering the caves, examine the risks and hazards at this site. How might they be reduced?	
6	 a) Identify traces of the early Stone-Age settlements here. b) This site is very vulnerable. How can we better protect it if the number of visitors increases? c) Make a sketch of how you think this area looked when Stone-Age people lived here. Include houses and boats. 	
7	a) Compare this site to the previous site. Which site do you think was inhabited first? Explain why people moved?	
8	a) Write down the story of the 1988 aeroplane crash.	

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b) Describe how they might be reduced
1a. Identify the raised shoreline. Look at the rocks, what evidence is there that they have been polished by water?
1b. Estimate approximately how high above present sea level you are. How many years ago do you think the sea level was this high?
1c. Describe how potholes are formed. Do you see any other evidence in the surrounding bedrock that water flowed here?
2a. Take a good look at the granite that forms Torghatten (tips: you can see it very well at the stairs). How many different minerals can you identify in the granite? Note characteristics such as color, grain size and appearance.
2b. How old is this granite? What ocean existed when it formed?

3a. Stop and look up at the mountainside above you. How many fractures can you see? Can you identify any larger ones? Are the fractures located in any specific direction?

3b. How do you think the fractures are formed?

3c. Make a sketch of the fractures noting key features.

4a. Estimate the height, length and width of the Torghatten hole.

Torghatten

4c. Make a sketch of the archipelago you see through the Torghatten hole.

5. Before entering the caves, examine the risks and hazards at this site. How might they be reduced?

6a. Identify traces of the early Stone-Age settlements here.

6b. This site is very vulnerable. How can we better protect it if the number of visitors increases?

6c. Make a sketch of how you think this area looked when Stone-Age people lived here. Include houses and boats.

7a. Compare this site to the previous site. Which site do you think was inhabited first? Explain why people moved?

8. Write down the story of the 1988 aeroplane crash.