

Annotation Revision Guidelines for Image-based Dataset

On the annotation interface, you will see the following:

- 1- An **image**
- 2- A **description** of the image to help you understand the image better.
- 3- Followed by the **different types of questions, answers, and a rationale** for the answer, all related to the image shown.

The types of the question will be:

- One open-ended question
- One Multiple-choice question, with choices
- Two True/False questions with selected answer

Your task is:

1. Decide if the image and its associated questions are related to the specified location.
2. For each type of question provided, score the clarity and the quality, on a scale from 1-5.
3. Indicate whether answering this question requires external knowledge, such as searching in google or checking for any additional information that is not present or visible in the image.
4. For each answer provided, score the correctness, on a scale from 1-5.
5. For each rationale provided, score the quality (Clarity, Informativeness, Plausibility, Faithfulness)
6. For any question and answer, if the score is less than 4, you will choose a reason for revision.

Further details on the above are provided below.

1. Is this question related to [LOCATION]?

Identify whether the question is related to the specified [LOCATION]. For example, if the name of the project you are working on mentions Egypt in its title, then the image and the questions should be related to Egypt.

For this question, you will choose one of the three labels:

- 1) **Relevant:** The question specifically relates to the location.
- 2) **Not Relevant:** The question is not related to the specified location, but could ask questions about a different location.
- 3) **Not sure:** It's challenging to determine if the question is location-specific. Only choose this option for particularly difficult cases.

2. Scoring Questions and Answers:

Open Ended Question and its answer

- **Question Quality: the score structure (Scale from 1-5):**
 - *Assess how clear, unambiguous, and relevant the question is to the image.*
 - *Scale: 1 = Poor (unclear, irrelevant); 5 = Excellent (perfectly clear and relevant)*
- **Select Revision Reasons for questions (if the quality is less to 4):**
 - *Unclear or ambiguous: the question is unclear or ambiguous*
 - *Not relevant to the image: the question is not related to the given image.*
 - *Hard to understand: the question is hard to understand.*
- **External Knowledge:** Indicate if answering requires information not visible/inferable from the image.
- **Answer Quality: the score structure (Scale from 1-5):** Assess if the answer is factual, concise, and fully supported by the image.
- **Select Revision Reasons for answer (if the quality is less to 4):**
 - *Incorrect or unsupported by the image*
 - *Incomplete or missing key information*
 - *Speculative or based on assumptions*
- **Select rationale quality (if the quality is less to 4):**
 - **Clarity & Informativeness (1–5):** *Rate how clear and informative the rationale is in justifying the answer.*
 - **Plausibility & Faithfulness (1–5):** *Rate how well the rationale provides a plausible, faithful explanation, grounded in the image.*

Multiple-choice Question and its choices

- **Question Quality: the score structure (Scale from 1-5):**
 - *Assess clarity, specificity, and relevance to the image.*
 - *Scale: 1 = Poor (unclear, irrelevant); 5 = Excellent (perfectly clear and relevant)*
- **Select Revision Reasons for questions (if the quality is less to 4):**
 - *Unclear or ambiguous: the question is unclear or ambiguous*
 - *Not relevant to the image: the question is not related to the given image.*
 - *Hard to understand: the question is hard to understand.*
- **Answer Quality: the score structure (Scale from 1-5):** *Rate how correct, complete and supported is the answer based on the image.*
- **Select Revision Reasons for the Answer (if the quality is less to 4):**
 - *Options overlap in meaning*
 - *Irrelevant or implausible options*
 - *Vague or confusion*
- **Select rationale quality (if the quality is less to 4):**
 - **Clarity & Informativeness (1–5):** *Rate how clear and informative the rationale is in justifying the answer.*
 - **Plausibility & Faithfulness (1–5):** *Rate how well the rationale provides a plausible, faithful explanation, grounded in the image.*

True/False questions/statements and its selected answer

- **Question/statements Quality: the score structure (Scale from 1-5):**
 - *Assess if the statement is clear, fact-based, and verifiable from the image. This does not imply that the statement needs to be true, but rather contains a fact that can be verifiable from the image.*
 - *Scale: 1 = Poor (unclear, irrelevant); 5 = Excellent (perfectly clear and relevant)*
- **Select Revision Reasons for questions (if the quality is less to 4):**
 - *Unclear or ambiguous: the question is unclear or ambiguous*
 - *Not factual*
- **Selected Answer Quality: the score structure (Scale from 1-3):** *Assess correctness and factual support for the True/False label based on the information available on the image.*
- **Select Revision Reasons for the answer (if the quality is less to 2):**
 - *Incorrect or unsupported by the image*
 - *Incomplete or missing information*
 - *Speculative or based on assumptions*
- **Select rationale quality (if the quality is less to 4):**
 - **Clarity & Informativeness (1–5):** *Rate how clear and informative the rationale is in justifying the answer.*
 - **Plausibility & Faithfulness (1–5):** *Rate how well the rationale provides a plausible, faithful explanation, grounded in the image.*

General Annotation Principles

- Avoid speculation beyond what is inferable from the image.
- If a question requires external knowledge for it to be answered, select the appropriate option.
- If you select a rating **below 4**, always specify the reason(s) for revision using the provided list.
- You can enlarge the picture by opening it in a new page.

Screenshot of the Annotation Interface

- Definitions of quality scales can be found in the form of tooltips.
- Below are screenshots of the interface:

Location Relevancy: ⓘ

Relevant

Not Relevant

Not Sure

Open-ended Question:

What type of ecosystem is depicted in the image, and why is it important for marine biodiversity?

Answer: The image depicts a coral reef ecosystem, which is vital for marine biodiversity as it provides habitat and shelter for numerous marine species and supports the food chain in the ocean.

Rationale: Coral reefs are known as biodiversity hotspots, and the image clearly shows a vibrant reef teeming with marine life. Their ecological importance is widely recognized.

Question Clarity/Quality (1–5): ⓘ

5 - Excellent

Does this question require external knowledge? ⓘ

Requires external knowledge

Answer Quality (1–5): ⓘ

5 - Excellent

Rationale Quality (Clarity & Informativeness): ⓘ

4 - Good

Rationale Support (Plausibility & Faithfulness): ⓘ

4 - Good

4 - Good

Multiple-choice Question:

Which activity is the person in the image engaging in?

- **A:** Scuba diving
- **B:** Snorkeling
- **C:** Underwater photography

Selected answer: Snorkeling

Rationale: The person is wearing snorkeling gear, including a mask and fins, and is swimming close to the surface, which is characteristic of snorkeling.

Question Clarity/Quality (1–5): ⓘ

5 - Excellent

Answer Quality (1–5): ⓘ

5 - Excellent

Rationale Quality (Clarity & Informativeness): ⓘ

5 - Excellent

Rationale Support (Plausibility & Faithfulness): ⓘ

5 - Excellent



Image Description:

An underwater photograph showing a coral reef with vibrant marine life, including colorful fish and various coral species. A person wearing snorkeling gear is swimming above the reef in clear blue water.



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An underwater photograph showing a coral reef with vibrant marine life, including colorful fish and various coral species. A person wearing snorkeling gear is swimming above the reef in clear blue water.

True/False Question 1:

Coral reefs are often referred to as the 'rainforests of the sea' due to their high biodiversity.

Selected answer: True

Rationale: Coral reefs host an extraordinary variety of marine life, making them comparable to rainforests in terms of biodiversity.

Question/Statement Clarity/Quality (1–5): ⓘ

5 - Excellent

Answer Quality (1–3): ⓘ

3 - Good

Rationale Quality (Clarity & Informativeness): ⓘ

5 - Excellent

Rationale Support (Plausibility & Faithfulness): ⓘ

5 - Excellent



Image Description:

An underwater photograph showing a coral reef with vibrant marine life, including colorful fish and various coral species. A person wearing snorkeling gear is swimming above the reef in clear blue water.

True/False Question 2:

The person in the image is wearing scuba diving equipment and is exploring deep underwater.

Selected answer: False

Rationale: The person is wearing snorkeling gear, not scuba diving equipment, and is swimming near the surface of the water.

Question/Statement Clarity/Quality (1–5): ⓘ

Select rating

Answer Quality (1–3): ⓘ

Select rating

Rationale Quality (Clarity & Informativeness): ⓘ

Select rating

Rationale Support (Plausibility & Faithfulness): ⓘ

Select rating



Image Description:

An underwater photograph showing a coral reef with vibrant marine life, including colorful fish and various coral species. A person wearing snorkeling gear is swimming above the reef in clear blue water.

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