Technical Communication

6. TESTING AND REVISING

Testing - Essential part of writing

- Writing process
  1. Pre-writing
  2. Analyze your audience, purpose
  3. Build an argument
  4. Write an outline
  5. Write a draft
  6. **Testing and revising**

- MUST test and revise your document
  - *Remember:* develop your document like a photograph, *not* linearly.
  - The best papers are revised many, many times (5-20 times)

Field Testing

- ## Field testing
  - Putting yourself in the place of the reader. Try to see the document from the reader's point of view.

- ## Ways to field test
  - Give your draft to the intended readers.
    - Ideal.
  - Role playing
    - ask some friend, colleagues to assume the role of the intended reader.
  - Self-evaluation.
    - You assume the role of the intended reader.

Two types of Testing

- In general you will be testing two types of documents
  - The process for testing each type is different.

1. Expository writing
   - Goal is to inform or argue a case.
   - Letters, memos, proposals, reports, ect.

2. Procedural writing
   - Goal is to get the reader to follow a step-by-step procedure.
   - Instructions, tutorials, manuals, ect.

Expository Writing

- Most writing will be in this category.

- Hierarchical structure.
  - Several main claims are made.
  - Hierarchy allow reader to skip between parts.

- Readers will expect the writing to support the claim.
  - Problem statement
  - Data
  - Argument
  - Sub-argument

- # Hierarchical writing
  - Allow reader to skip from one part of the document to another.
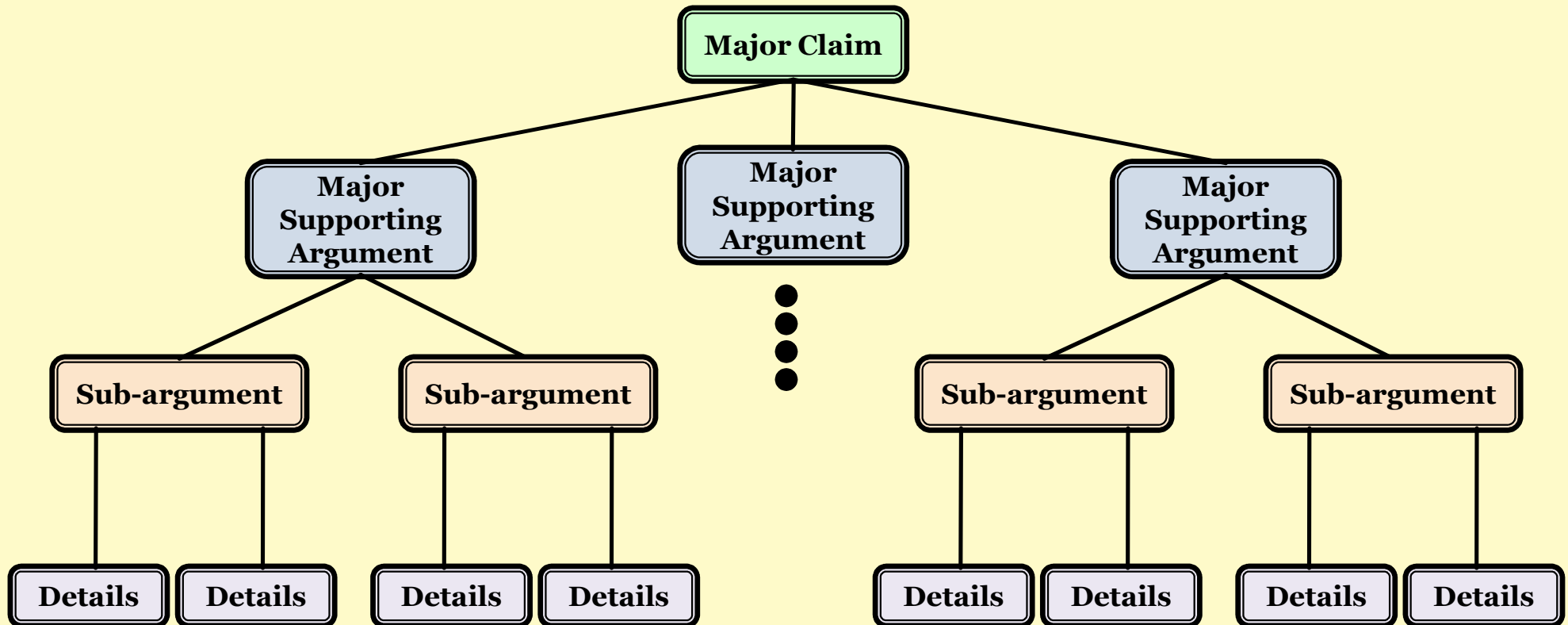
Testing of Expository Writing

- Find a reader – this reader will play role of target audience.

1. Give copy of document, Allow them to mark it up in private.
   - Encourage them to be critical.
   - Tell them to mark up the document in any way they like.

2. Look at reader's comments, make sure you understand them.
   - Do not become defensive – you will close off the conversation.
   - Do not take the comments personally.
   - **Your target audience will probably have the same response as the reader.**

3. Ask questions about specific features of the document...

3. Ask questions about specific features of the document.

   1. Are the main points clear?

   2. Are the main points well supported?

   3. Are there any logical "holes" or mistakes in the details?

   4. Is there anything about the tones of the document that might offend readers?

   5. How about the overall look of the document?

   6. Did you notice any misspellings or grammatical errors?

Ex: Expository writing

Abstract

We present Ensemble EM-DD, a new multiple-instance learning algorithm that learns using a more expressive hypothesis class than EM-DD and many of the other multiple-instance algorithms. Specifically, instead of learning a concept defined by a single point-and-scaling hypothesis, Ensemble EM-DD allows the underlying concept to be described independently by many different point-and-scaling hypotheses, each one output by an individual run of an improved variation of the gradient search used within the EM-DD algorithm. Then this ensemble of hypotheses are used to form the final hypothesis. For applications such as content-based image retrieval in which there might be many different ways to recognize the images of interest or the desired images are those that contain several desired regions, the generalized hypothesis class used by Ensemble EM-DD improves performance.
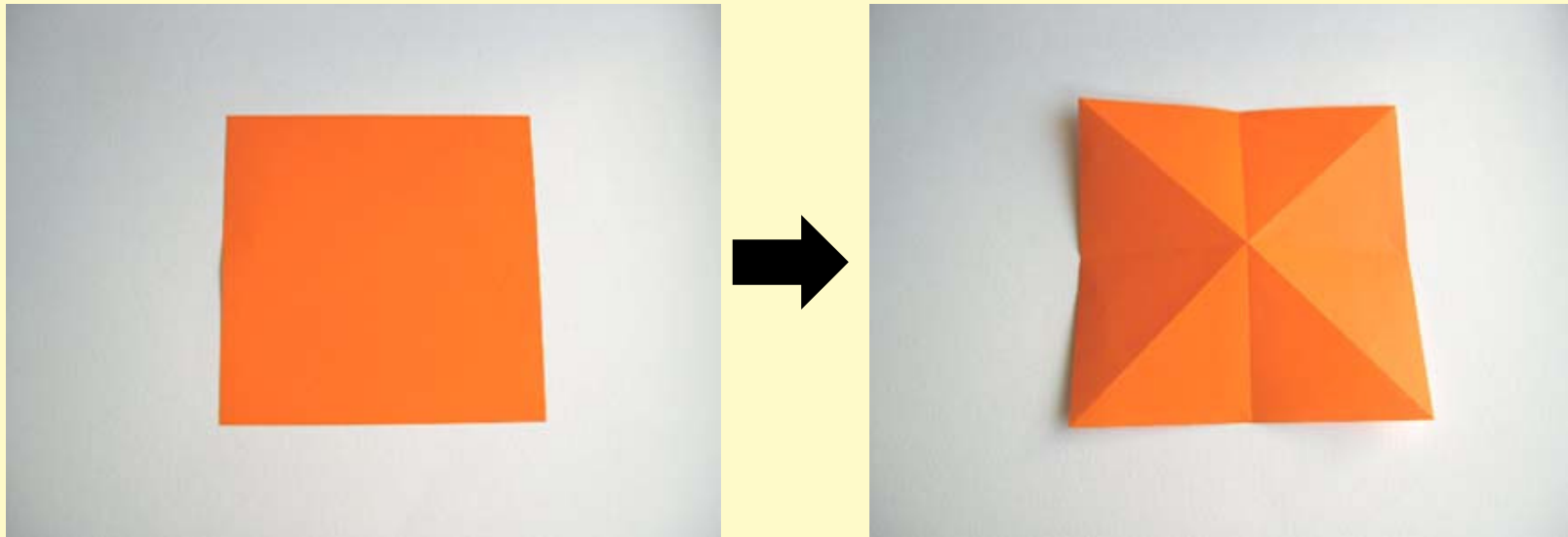
Testing of Procedural Writing

- Find a test subject
  - Someone who is unfamiliar with the procedure you are describing.

- Two types of testing
1. Visual monitoring
   - Simply observe the subject follow the procedure.
   - When they are finished ask them where they had trouble

2. Protocol Analysis
   - Subject "thinks aloud" while using your procedure.
   - Record the subject.
   - Transcribe and analyze the audio, looking for trouble spot.

- Visual monitoring is simple, inexpensive.
- Protocol Analysis yields more information, but is time-consuming.

- **Origami Water Balloon**

- Start with a square of paper.
- Then make mountain and valley folds as if you were making a square base.
- The difference is that the mountain and valley folds are ***reversed*** when compared to the square base.
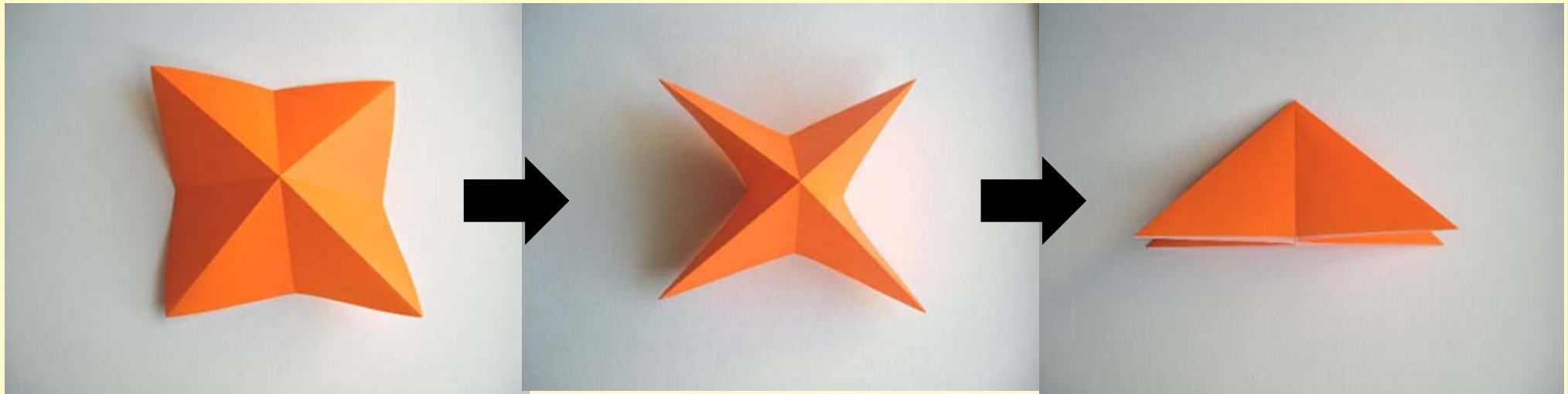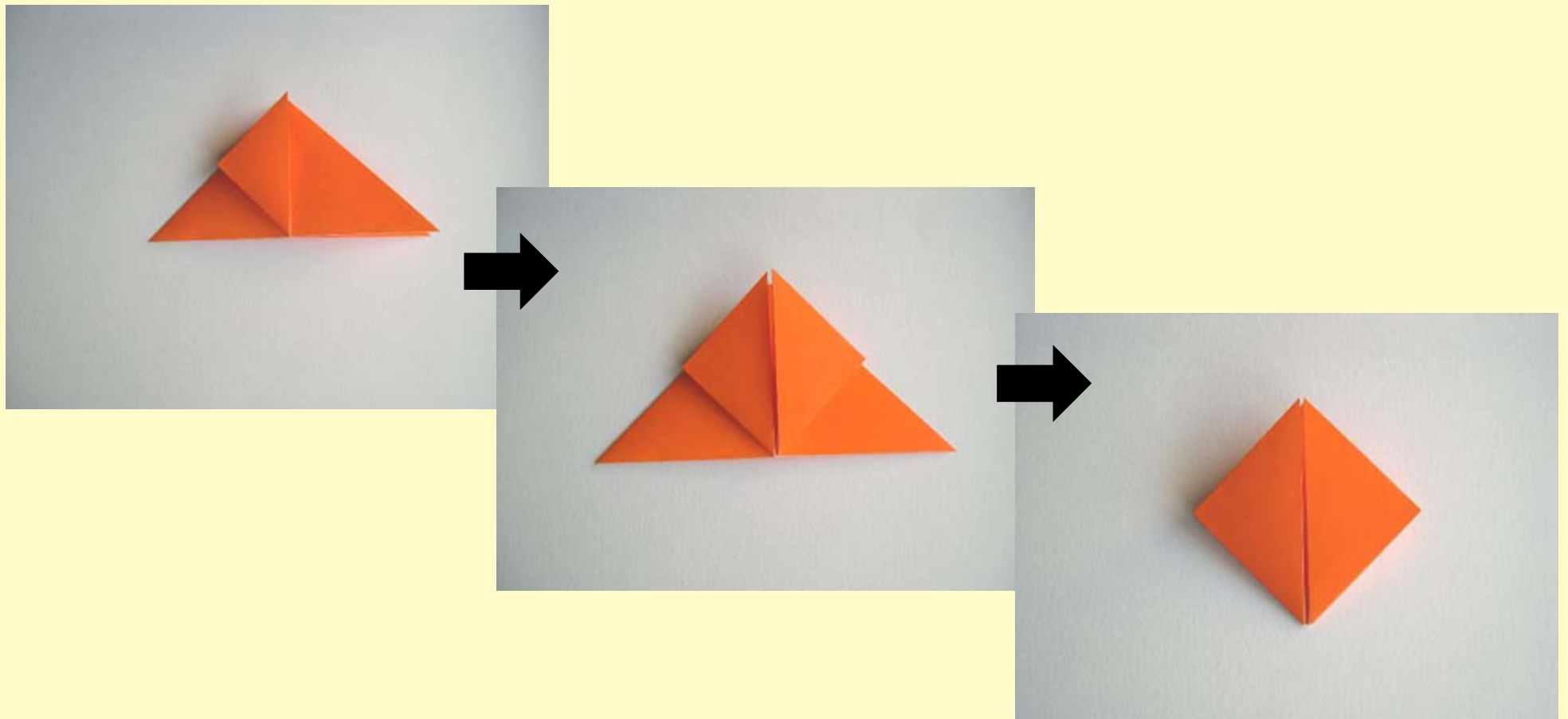
Ex: Procedural Writing

- Now start to collapse the pre-folded piece of paper.

- You will end up with the folded triangle shown below. This piece occurs so often in origami that it has its own name, the **balloon base** (or **water bomb base**).

Ex: Procedural Writing

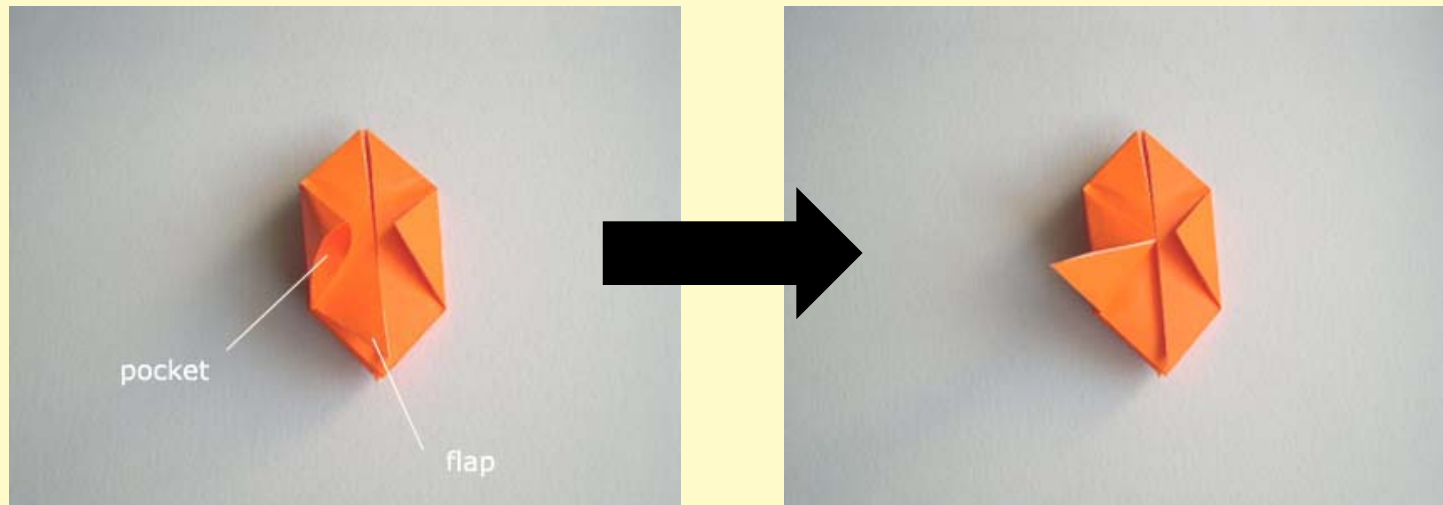- Now fold each of the four corners upwards as shown in the next three photos:

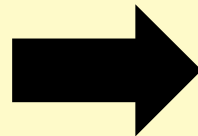- Now fold the four horizontal corners into the center as shown:
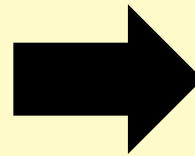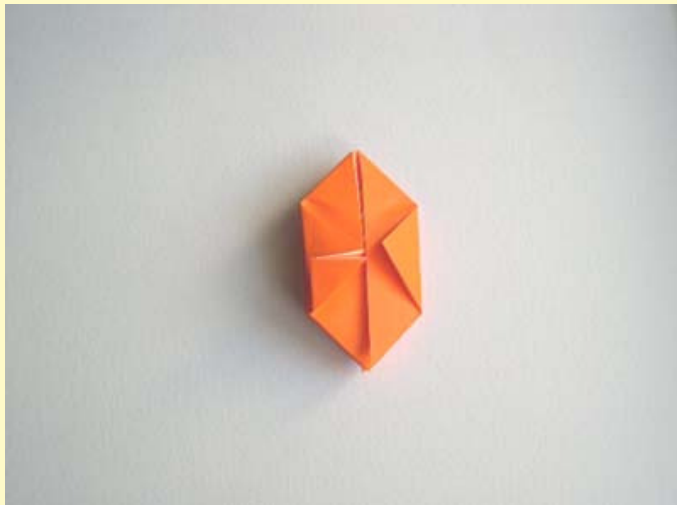
- Use your finger to expand the little pocket as shown below. You are going to tuck the flap into the pocket.
- However, the flap must first be folded in two to make it small enough for the pocket.

- This sequence shows the flap folded, then tucked in.
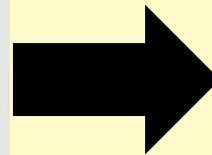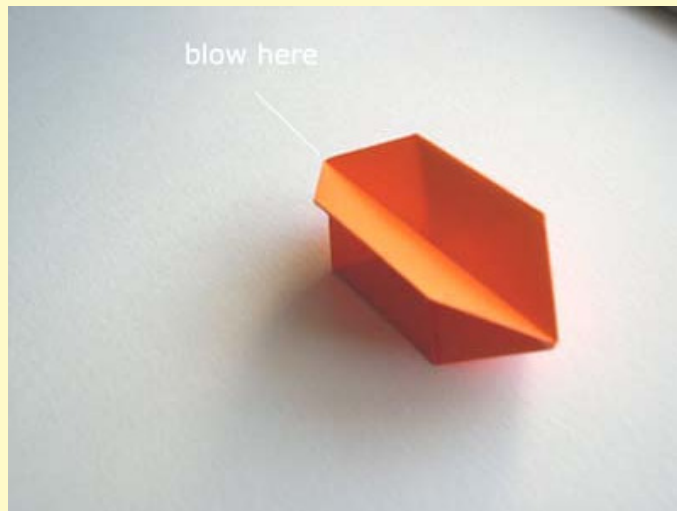- Now fold and tuck in the other three flaps.

Ex: Procedural Writing

- Finally expand the balloon as shown below. First unfold the balloon partially, then blow gently into the hole at one end.

Revising

- ## Key principles
    1. Make major repairs before you make minor ones.
    2. Fix up the content before you fix up the form (fonts, style, ect).

- ## Making passes through the document
    1. Check main points. Make sure they are clear.
    2. Check supporting points and details.
    3. Consider the tone of the document.
    4. Check the format.
    5. Proofreading (spelling, grammar, ect)..