Interactive Posters

Disc with flaps

Abacus

Window fold

Waterfall fold

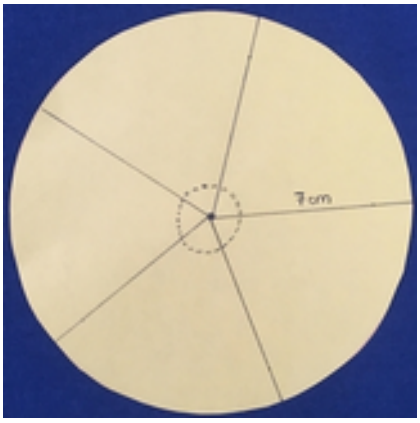
Square with flaps

Set of cards

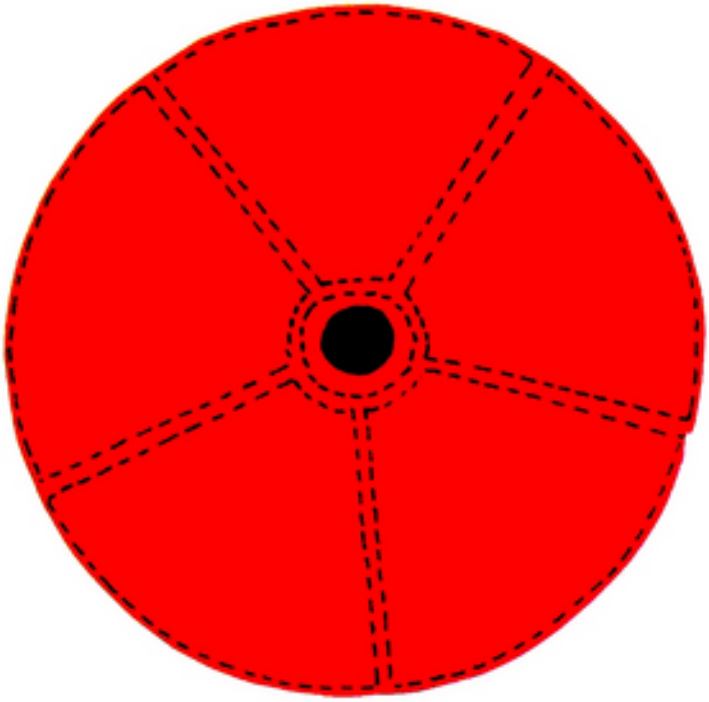
Choose any topic and make these educational and creative interactive posters which can be used for teaching-learning. In this resource, we present six different types of interactive foldables, made primarily using paper to organize and present information. The foldable units shown in the image above can be composed on a white A3 sheet of paper (29.7 x 42.0 cms) depending on the flow of content and preferred layout design.

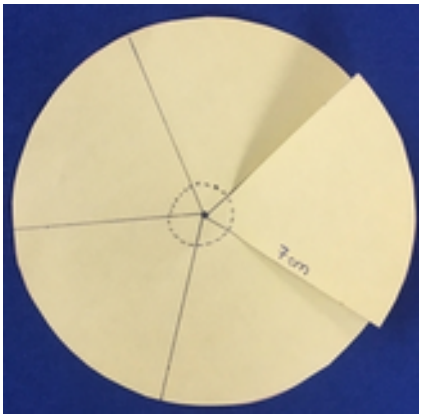
Materials required: Thick white A3 sheet (29.7 x 42.0 cms), a few coloured A4 sheets (21.0 x 29.7 cms), pencil, pen, colour pencils/ sketch pens, black marker, eraser, ruler, glue, thread, a pin to make holes and beads of diameter approximately 0.5cm.

Disc with flaps



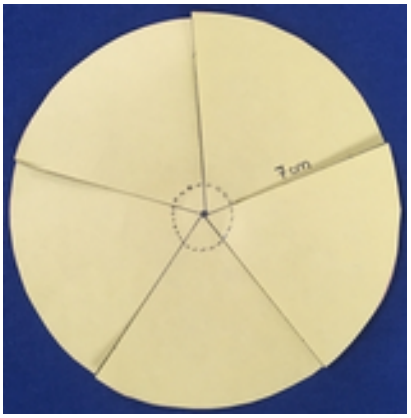
Step 1: Cut a circle of radius 7cm and divide the circle in five equal parts. Now, make a small circle close to the centre as shown in the image.



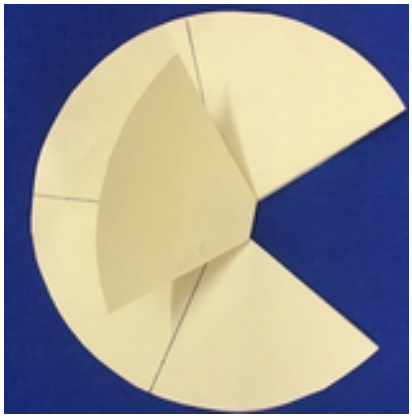


Step 2: Cut on the markings till the small circle. **Do not** cut till the center of the circle. The cut part should look like a flap.

The disc enables categorization and draws attention to specific parts of a topic. It may be used for both linear & non-linear information dissemination. This fold can be used best for a quiz or any layered information.



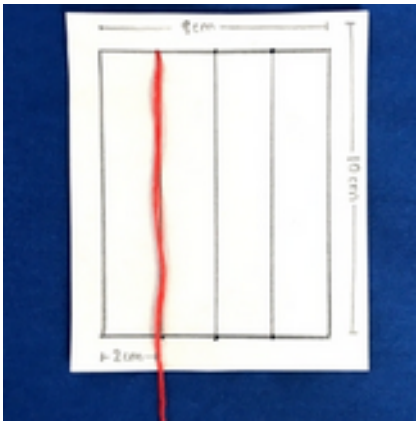
Step 3: Similarly, cut all the markings as shown. Apply glue behind the small circle and stick it on the poster.



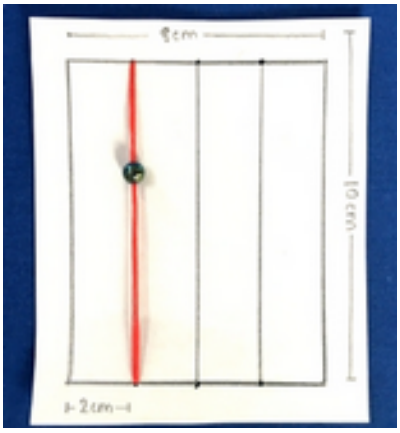
Step 4: After pasting the disc you can write or draw the content on and/or below the flap.

Abacus

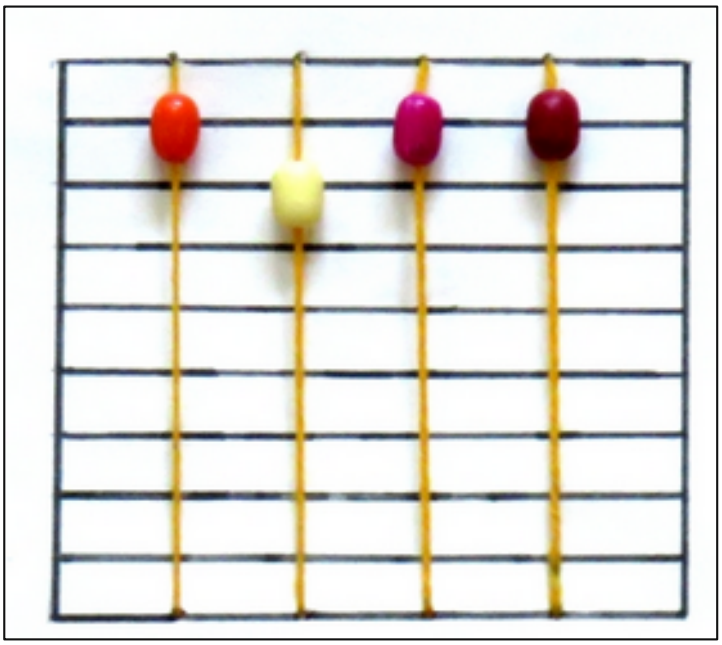
Step 1: Draw an 8cm x 10cm rectangle on your A3 poster. Make four columns of 2cm each (or as required).



Step 2: With help of a pin make holes on top and bottom of the column lines. Now, take a string and pass it through the top hole to bottom as shown.

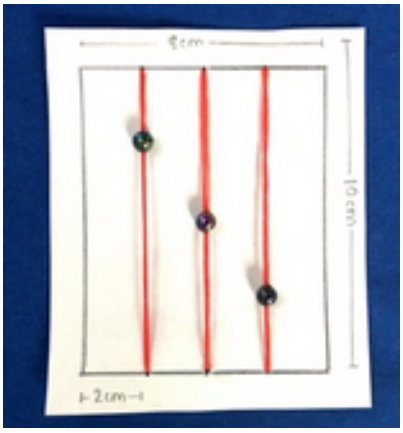


Step 3: Now, insert a small bead through the string and seal it by tying a knot on the back of the bottom hole.



Abacus* beads are perfect for presentation of graphs, data or any dynamic content. The horizontal and vertical lines may serve as X and Y axis.

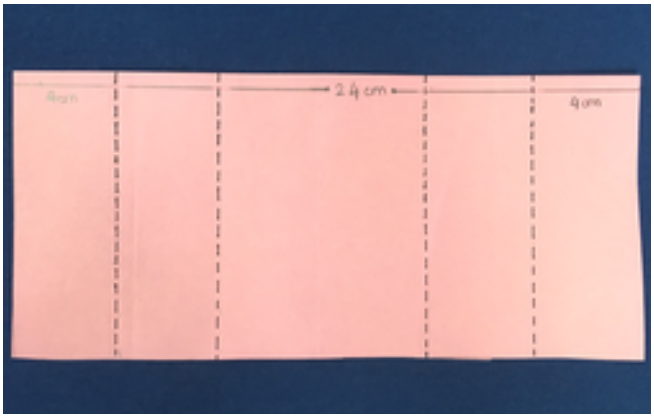
*Make sure this is made directly on the A3 poster and not pasted separately as other foldables.



Step 4: Repeat step 2 and 3 for other dividers. All the beads should move on the string smoothly.

Window fold

The symmetrical window foldable opens up on two sides simultaneously, left and right. If rotated 90 degrees then one can open it up and down.

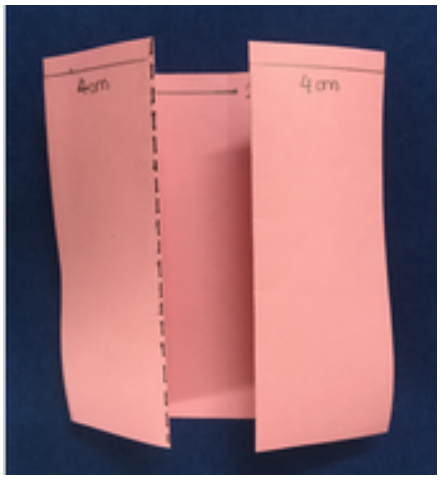


Step 1: Cut a rectangle of 24cm width x 11cm height. Make five columns of 4cm, 4cm, 8cm, 4cm and 4cm as shown in the image.

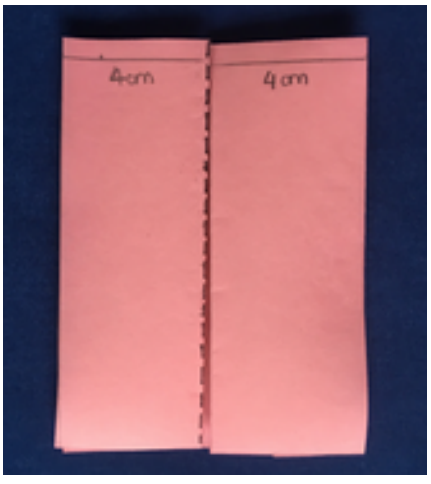
Step 2: Fold the paper on the dotted lines, like a fan fold (once outward and then inward) such that the 8cm rectangle is at the centre, as shown in the image.

Window fold

This fold is useful to depict content that may have tables or diagrams or other graphics. Owing to its stretch like appearance, one could use this foldable to depicts topics related to expansion.



Step 3: Bring the folds closer to give it a form of a window. Press the folds to make it firm.

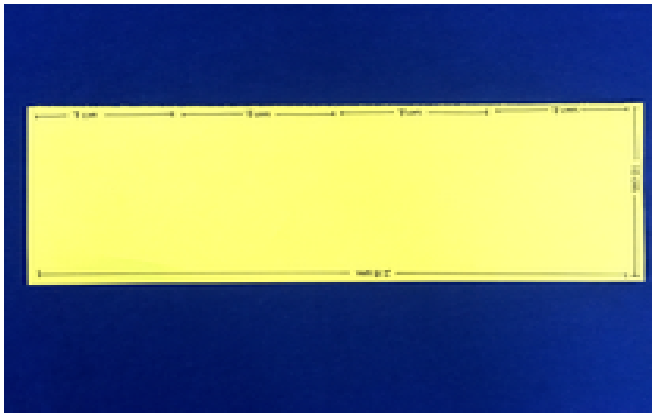


Step 4: The window fold is now ready. Apply glue on the back of the window, and paste it on your A3 poster.

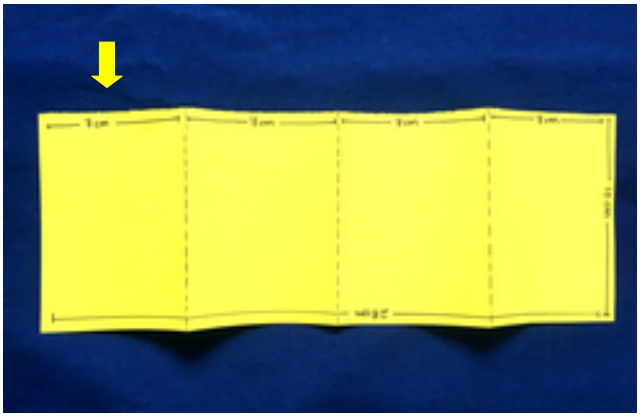
Waterfall fold

The waterfall fold* appears compact but can hold a lot of information on each fold. It is ideal for content which is linear or has a set order for reading.

*This fold can be used vertically or horizontally as per the flow of information or according to the A3 poster layout.

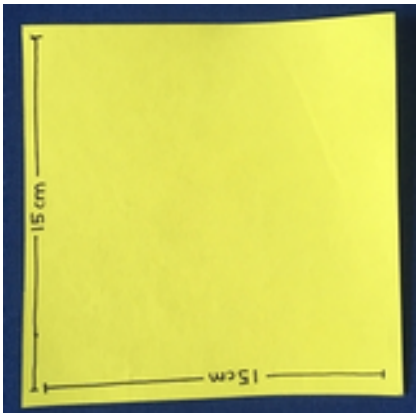


Step 1: Cut a 28cm x 10cm rectangle. Now, mark four columns of 7cm each. These markings will aid in making the folds.

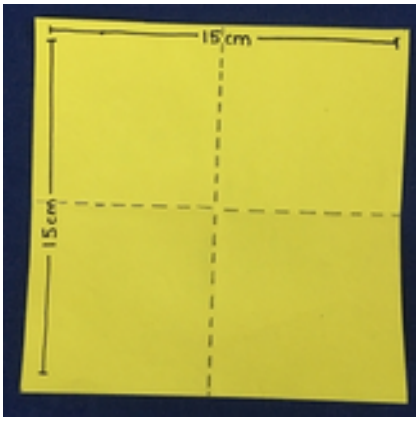


Step 2: As shown in the image, fold the paper on the dotted lines like a fan fold (inward then outward). Apply glue on the back of the first fold (yellow arrow) and stick it on your A3 poster.

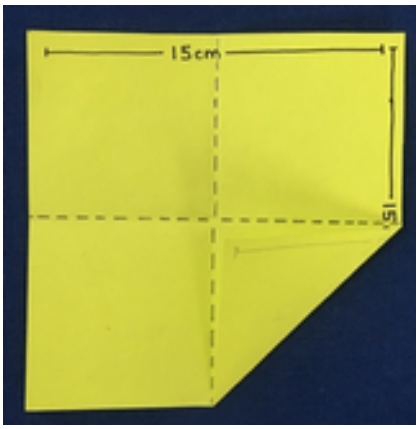
Square with flaps



Step 1: Take a 15cm x 15cm square.



Step 2: Fold the square in half both vertically and horizontally. You will get fold marks as shown with dotted lines in the image.



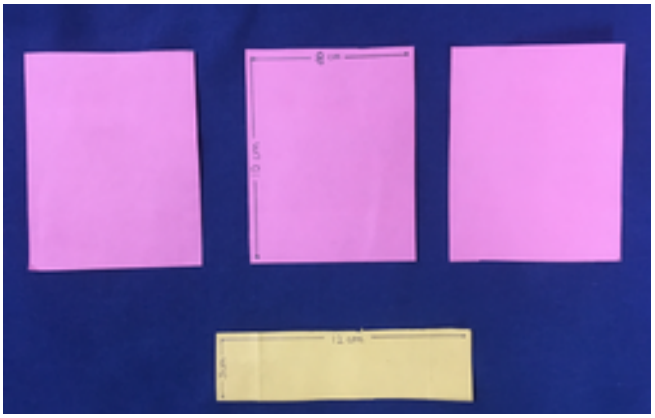
Step 3: Fold one corner towards the centre of the square, as shown. Now, repeat for the remaining three corners.

The square with flaps helps place the content in a manner where either a part or all of the information can be seen. The folds can also be used as arrows on opening and can depict directions; left, right, up and down.

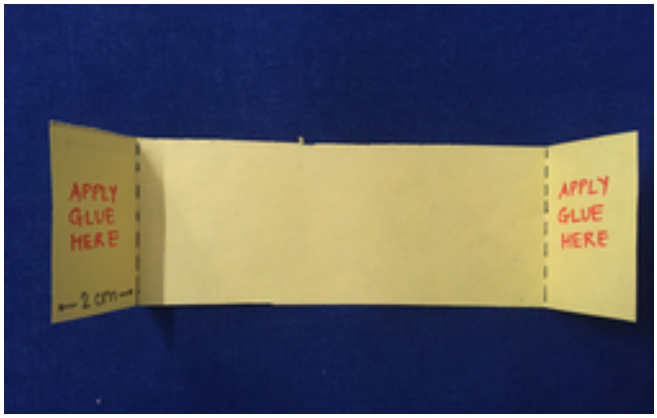
Step 4: You can write the content inside the flap. Apply glue on the back and stick it on the A3 poster.

Set of cards

This unit holds information distributed on single cards and kept together inside a pocket like holder.



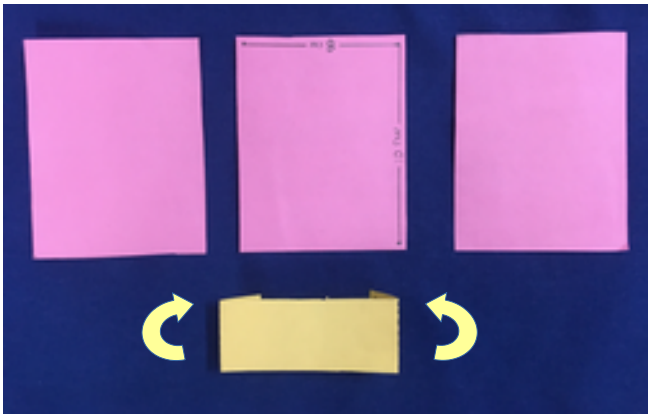
Step 1: Cut a few rectangular cards each of 8cm x 10cm. Also, cut a strip of 12cm x 3cm to hold the cards together. You could choose two different coloured papers to make these.



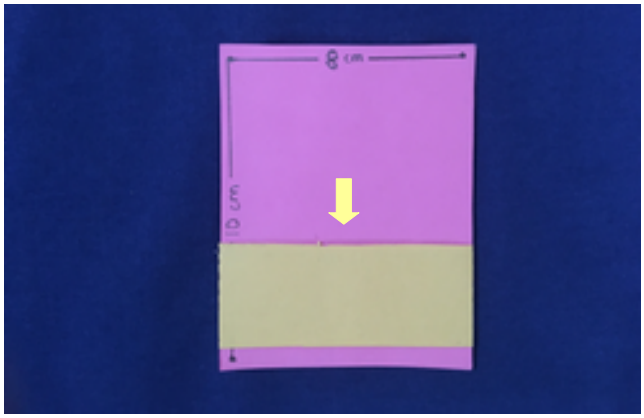
Step 2: To make the strip that hold these cards, fold the ends of the strip at 2cm as shown in the image.

Set of cards

This foldable can be used for sequencing, ordering or game activities. The strip to hold the cards can be made broader as per the space on your poster.



Step 3: The strip looks like the image shown above. Once the cards are inserted apply glue only on the folded ends of the strip, as depicted by the arrows. Paste these glued ends to the A3 poster. Do not apply glue on the cards.



Step 4: After pasting the strip on the poster, you can insert the card set in it (see the yellow arrow). The cards should slide in and out easily.

Interactive Posters

Information chunking (Miller, 1956) or 'segmenting' is an important principle to help understand and remember complex information and has long lasting benefits. Interactive posters are based on the same principle and aim to give control to students for their learning. These posters are a collection of mini-foldables that can help organize and present information creatively. These foldables can be used to distribute information in groups which facilitate information processing and learning. ‘Interactive’ here means active participation from students in the form of opening, closing, flipping the folds, pop-ups, stickers or moving objects such as cards and beads on a thread to access and/or categorise information. Unlike the textbooks which are usually static (read only), it provides a hands-on experience to students both while making and using the posters.

The art and technique of folding paper is called 'origami'. Origami helps in nurturing skills such as dexterity, focus and attention. Pearl (1994) has found diverse educational benefits for students practising origami in mathematics, arts, science and social studies. Following instructions and accordingly folding the paper aids in development of mathematical concepts (Boakes, 2008) such as measurement, symmetry, mirror image, shape recognition, geometric fundamentals, investigation of 3D objects and spatial relationships.

The foldables presented in this resource depict an example of using paper to make interactive posters. There are multiple ways to bring in interactivity in posters and one must explore these options. For example, one can use transparency sheets, threads, beads, matchsticks, buttons, rivets, etc. and try new techniques for making interactive material such as sliding, pop-ups, rotating discs and so on. These posters are grade, subject and language independent and may also be used as an assessment tool.

References:

Miller, G. (1956). The magical number seven, plus or minus two: Some limits on our capacity for processing information. *The Psychological Review*, 63, 81-97.

Pearl, B. (1994). *Math in motion: Origami in the classroom (K-8)*. Langhorne, PA: Math in Motion, Incorporated.

Boakes, N. (2008). Origami-mathematics lessons: Paper folding as a teaching tool. *Mathidues* 1(1), 1-9.