LESSON 2 A **STRUCTURE OF A 2D BOX**

PURPOSE: To have the children;

- COMPARE 3D BOX and NOTICING MAT
- Find the CORNERS on the Noticing Mat
- Find INSIDE and OUTSIDE of Noticing Mat

MATERIALS: Noticing Mat

Tape Recorder or Yak Back [small recording device]

Wool - runs from corner to corner on Noticing Mat

Chart paper with full page of printing [top to bottom]

Large picture, poster, painting and/or an I Spy book

Little Jack Horner printed on Bristol board and transparency

[See CD: Transparencies] large space between words / lines]

2 familiar boxes [one tall , one wide] and a paper [8 $\frac{1}{2}$ x 11]

STRATEGIES: KNOWN TO UNKNOWN, NOTICING AND LANGUAGE

MATH LINK: Some children do not reproduce numbers accurately when given a model.

Some children have difficulty initiating sentences and responding using sentences.

LITERACY LINK: Some children do not reproduce letters accurately when given a model.

Some children have difficulty initiating sentences and responding using sentences.

EXPECTATION:

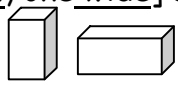
SS&G: Use language accurately to describe basic spatial relationships.

LESSON 2 A **STRUCTURE OF A 2D BOX**

KNOWN TO UNKNOWN, NOTICING AND LANGUAGE: CORNERS

Place the Noticing Mat on the floor with children facing the bottom edge.

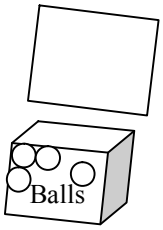
Have 2 familiar boxes [one tall, one wide] and a paper [8 ½ x 11] ready to use.



Turn on tape recorder just before starting the lesson.

[SHOW the box and a paper turned to match the shape of the box.]

I want you to look at this box and paper.



What is the same? [shape of front, corners, edges]

What is different? [paper flat with 4 corners and edges, box sticks out with more [8] corners and edges, can put hand inside]

The paper is flat and the box sticks out farther than the paper.

Is there any way I can make the box look more like the paper?

[CHOOSE someone. FOLD flaps in when flattened.]

[***If no one knows,** fold in flaps and flatten the box.]

What do you notice now? [flat, not sticking out]

What is the same? [flat, 4 corners and edges, can't put hand inside]

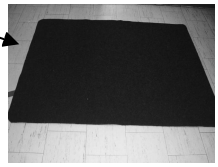
LESSON 2 A STRUCTURE OF A 2D BOX

KNOWN TO UNKNOWN, NOTICING AND LANGUAGE: CORNERS

Our box looks more like the paper because it is flat now.

[POINT TO noticing Mat.] **What is this?**

This is a Noticing Mat.



[HOLD up the flattened box and the point to the Noticing Mat.]

The Noticing Mat reminds me of our paper and flattened box.

Tell me what you notice when you look at this mat. [USE tape recorder.]

[**PRAISE** each child as a response is given in order to encourage participation.

Children may tend to give descriptive language about the size, texture, colour and shape particularly if they haven't done the unit on 3D structure of a box.

RECORDED responses can be put into the Big Book later.

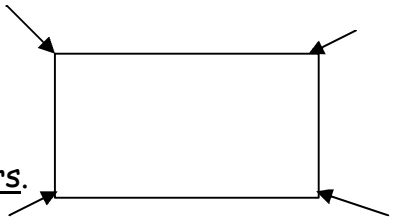
[****If the children do not go beyond giving descriptions** about the Noticing Mat, POINT to the **corners**.]

What can you tell me about these? [points, bends, corners etc.]

LESSON 2 A **STRUCTURE OF A 2D BOX**

NOTICING AND LANGUAGE: CORNERS

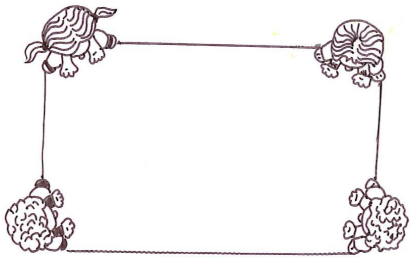
What do we call these? [corners.]



I need children to stand in all the corners.

How many children will I need? [4] [CHOOSE 4 children.]

Bend down and touch the corners.



I want different children to come to the corners.

How many children will we need? [4] [CHOOSE 4 children.]

Bend your knees and touch the corners.

[REPEAT with other children.]

LITERACY LINK:

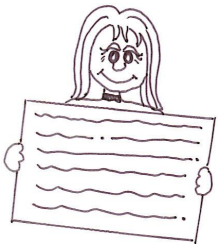
Children need to know where to start reading and writing.

Show a chart paper with a **FULL page of print**.

LESSON 2 A **STRUCTURE OF A 2D BOX**

NOTICING AND LANGUAGE: CORNERS

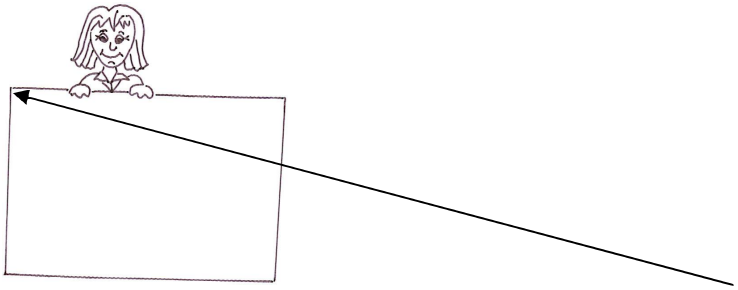
If you were reading this page, where would you start reading? [top left]



Where would you stop reading this page? [bottom right]

We are going to pretend that our Noticing Mat is a page of a book.

[HOLD Top Edge of the mat up so mat hangs straight down].



If this mat were a page in a book, where would you start reading?

[top left corner]

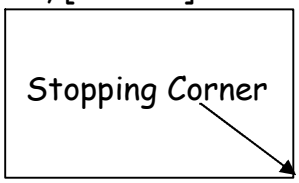
We **start** reading here, [POINT] so we can call this the **Starting Corner**.

If we had words that filled the mat, like the page of the book, where would we stop reading? [bottom right corner]

LESSON 2 A **STRUCTURE OF A 2D BOX**

NOTICING AND LANGUAGE: CORNERS

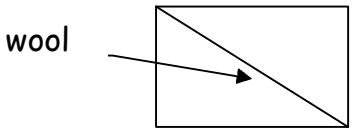
We **stop** reading here, [POINT] so we can call this the **Stopping Corner**.



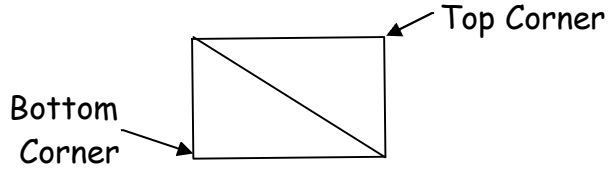
[LAY mat back down on the floor.]

This is the **Starting Corner** [POINT] and this is the **Stopping Corner**. [POINT]

[LAY a piece of wool diagonally from the Starting Corner to the Stopping Corner.]



We call the other two **corners**, the **Top** and **Bottom** Corners.



NOTICING LANGUAGE, AUTOMATICITY:

Have the children **quickly** take turns doing the following:

- Stand in the Starting Corner, then **clap and say "Starting Corner**."
- Walk down the wool.
- When they reach the Stopping Corner, they **clap and say "Stopping Corner**" before stepping off the mat.

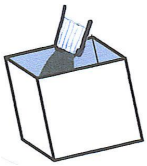
When I left this out for activity time, I found the children **created** their **own ways of moving** from corner to corner. [bunny-hopping, crawling and wriggling like a snake] They changed their voices when naming corners.

LESSON 2 A **STRUCTURE OF A 2D BOX**

KNOWN TO UNKNOWN: INSIDE, OUTSIDE

Show a box [not flattened] and the Noticing Mat.

I can put my hand **inside** the box, like this. [PUT hand inside the box.]



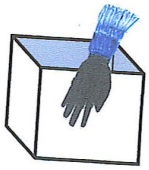
Our Noticing Mat is shaped like a box.

We can be inside our box shape on the Noticing Mat too.

Where would we stand if we were inside the box made by our Noticing Mat? [CHOOSE child.]

When we stand on the Noticing Mat, we are inside the box shape.

[PUT hand outside the box.]



I can have my hand outside the box, like this.

We can be inside our box shape on the Noticing Mat too.

Where would we stand if we were outside the box made by our Noticing Mat? [CHOOSE child.]

LESSON 2 A STRUCTURE OF A 2D BOX

KNOWN TO UNKNOWN: INSIDE, OUTSIDE

When we are off the Noticing Mat we are outside the box.

I want some of you to come to the bottom of our Noticing Mat.

[DEMONSTRATE the following:]

I want you to move where I tell you when I say inside, outside, on or off.

[CHOOSE 4 children.]

Ready? Inside, off, on, outside, on, inside, outside, off.

APPLICATION:

- Look around the **room** for other Starting and Stopping Corners.
- In the **gym**, or on the **playground**, look for other boxes and walk from the Starting Corner to the Stopping Corner.
- Have the children move inside and outside boxes in the gym.

LITERACY LINK:

Children need to know that we usually start reading in the top left corner. [Starting Corner]

- Show a large picture, poster, and/or painting and/or an I Spy book.

- Have the children describe what they see in the Starting Corner and Stopping Corner.

LESSON 2 A STRUCTURE OF A 2D BOX

LITERACY LINK:

- Have the children **point** to the Starting and Stopping Corners as you read the **message board** or share a **big book** .

NURSERY RHYME [CORNER]

Children learn to read by seeing the same words frequently in a meaningful context.

On a large piece of Bristol board write the nursery rhyme:

Little Jack Horner. Leave exaggerated spaces between words and lines.

As the children say the rhyme, one child chooses a corner of the Noticing Mat to sit in and pretends to stick a thumb in a pie.

[You may want to substitute another word for the word Christmas.]

[apple pie]

- After the word **said**, the child on the mat says, "**What a good boy** [**girl**] **am I**."
- Repeat the above with different children.
- Use the word frames to locate words in the rhyme on Bristol board.
- Use small rectangles cut from coloured transparency to locate words in the rhyme on the transparency.

Make a transparency of the rhyme. [See CD: Transparencies, Nursery Rhymes, provided]

- Read the rhymes together and cover known high frequency words with small coloured rectangles cut from transparencies

BIG BOOK

Make a diagram showing the box and naming the corners.

{Starting, Stopping, Top, Bottom]

LESSON 2 B STRUCTURE OF A 2D BOX

PURPOSE: To have the children;

- Find the TOP and STARTING CORNERS when the NOTICING MAT is turned in the VERTICAL and HORIZONTAL positions
- Find the EDGES of the Noticing Mat

MATERIALS: 2 Pieces wool running from corner to corner [diagonally] on Noticing Mat

Pictures [may be drawn] of things with edges [balcony, deck, cliff, step, roof, knife etc.]

2 Boxes [one wide, one tall]

2 Books about same shape but tops in different places

2 Papers [8 ½ x 11 inches]

Small black marker for printing and drawing on papers

STRATEGIES: NOTICING AND LANGUAGE

MATH LINK: Some children do not reproduce numbers accurately when given a model.

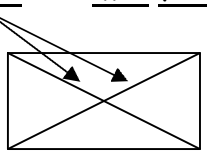
LITERACY LINK: Some children do not reproduce letters accurately when given a model.

EXPECTATION:

SS&G: Use language accurately to describe basic spatial relationships.

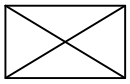
LESSON 2 B STRUCTURE OF A 2D BOX

REVIEW: Lay the Noticing Mat on the floor, and review the names of the corners of the mat by asking for the names as you **join** the corners **with wool**. [LEAVE the wool on the mat for the lesson.]



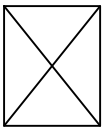
LITERACY LINK: KNOWN TO UNKNOWN: STARTING CORNER

Look at the Starting and Stopping Corners on our mat.



Where is the Starting Corner, at the top or bottom?

Watch as I TURN the Noticing Mat.

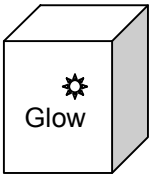


[TURN the mat to a vertical position on the floor.]
[Linda Jackson's idea]

If this were a page with printing where would you start reading?

We always start reading from the top. [POINT.]

[SHOW a box that is taller than it is wide.]



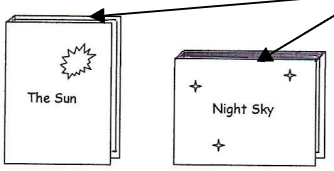
The front of this box has the same shape as the Noticing Mat.

Where is the top of the box?

LESSON 2 B **STRUCTURE OF A 2D BOX**

LITERACY LINK: KNOWN TO UNKNOWN: STARTING CORNER

Bring out 2 books about the same shape, but tops are in different places.



Look at these books.

When I put one book on top of the other, they are about the same shape, but the printing and pictures are not in the same places.

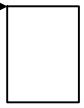
We know where the top is by looking at the pictures and printing on the book.

[TAKE two [8 ½ x 11] papers.]

When we draw a picture or print on a paper, we decide which way we want the paper turned, then we start at the top.

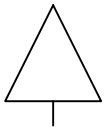
[TURN a paper to the vertical position.]

I want my paper turned this way, so my Starting Corner will be this corner at the top. →



[PRINT a sentence, then draw a picture below the print.]
e.g.,

Here is a tree.

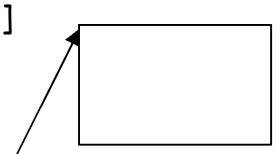


I want to turn my paper a different way this time.

LESSON 2 B **STRUCTURE OF A 2D BOX**

LITERACY LINK: KNOWN TO UNKNOWN: STARTING CORNER

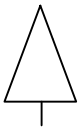
[TURN a paper to the horizontal position.]



I want my paper turned this way, so my Starting Corner will be this corner at the top.

[PRINT a sentence, then draw a picture.]

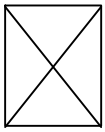
Here is a tree.



I started at the top on both papers.

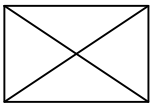
Let's look at our Noticing Mat again.

If the mat is turned the way it is now, where is the top?



Where is the Starting Corner?

[TURN the mat to the horizontal position.]



If I turn it the other way, where is the top?

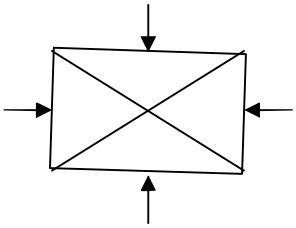
Where is the Starting Corner?

LESSON 2 B **STRUCTURE OF A 2D BOX**

NOTICING AND LANGUAGE: EDGES

What do we call the parts between the corners?

[POINT to 4 edges.]



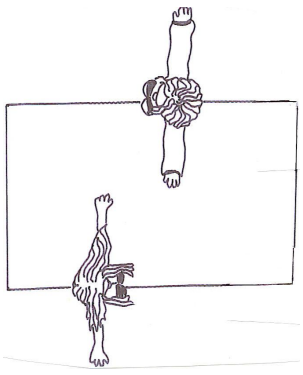
We call them **edges**.

Where else can we find edges? [You may have pictures of the following to show the children: box, balcony, deck, cliff, step, roof, knife etc.]

When we are standing on the **edge** we must be careful not to step off.

I am going to ask some of you to show us how you would walk if you wanted to stay on the edge without falling off.

[CHILDREN walk as if balancing on a tight rope.]



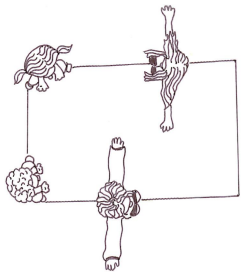
We are going to take turns **walking around** the **edges** of the **mat**.

LESSON 2 B **STRUCTURE OF A 2D BOX**

NOTICING AND LANGUAGE: EDGES

When you are on the **edges**, I want you to put your arms out to keep your balance, to show that you are on the edge. [DEMONSTRATE.]

When you come to a **corner**, I want you to stop and touch the corner of the mat. [DEMONSTRATE.]

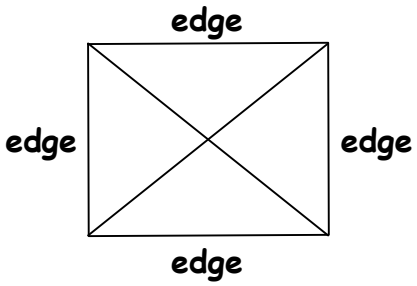


[HAVE small **groups** quickly walk around the outside of the mat, balancing on the edges and bending to touch the corners.]

[The other children can watch to see if everyone is stopping at the corners.]

LITERACY LINK:

BIG BOOK: Draw a box and label the edges.



We find edges between the corners.