

Supplies

Groups of identical or similar objects, such as toys, blocks, teddy bears, counters, geometric shapes, or socks. (All objects are mixed together in one pile.)

The Activity

The student will create matching patterns of identical objects, such as sock—sock—sock or teddy—teddy—teddy.

Variations

- Have the student start an A-B pattern with similar objects and explain what the pattern is. For example, one doll, one bear, doll, bear... Even though there may be different dolls and bears, the pattern would still be A (doll) - B (bear).

Focus:

Encourage the student to focus their attention on the task at hand. Allow the student to get acquainted with the objects by touching and discussing what they are. Then explain that they will line up identical objects and create a pattern. Formulate a plan with the student.

Questions: What do we have here? Can you tell me what this is? What can we do with these pieces? Let's make a plan—what shall we do first? And then?

Act:

The student will take one of the objects and start lining up all the same items. When a different object is picked up, start a new line, until all the objects have been lined up into patterns of "same" objects.

Questions: What pattern are you starting with? How are all the things in this line alike? How many pieces are in this line? How did you know that? How can you find out? Look, this one is a big teddy bear, and this is a small one. How come you put them in the same line?

Reflect:

During and after the activity reflect on what the student is doing/has done.

Questions: What did we do today? What did you do first? Next? Last? How did you know how to match the pieces? What did you like the best? Which line had the most? The least?

Math Observation Checklist:

This activity will give insight into the student's skills in size, shapes, quantity, sorting, counting, sequencing, position, systematic exploration, correct orientation in space, taking all the available information into account, and attending to relevant details.



Supplies

Pairs of objects that go together, such as (socks, shoes, comb), (hairbrush, toothbrush, empty toothpaste tube), or (baby doll and bottle). For the initial presentation, mix all the objects together into one pile.

The Activity

The student will create matching sets of objects.

Variations

- Walk through the room and discover things that go together (e.g., door and door knob, lock and key, whiteboard and eraser).

Focus:

Encourage the student to focus their attention on the task at hand. Allow the student to get acquainted with the objects by touching and discussing what they are. Then explain that they will make sets with things that go together. Formulate a plan with the student.

Questions: What do we have here? Can you tell me what this is? What can we do with these things? Let's make a plan—what shall we do first? And then?

Act:

The student will take one object from the pile and search for something that would go with it to form a set. After all the sets are sorted, break them up again and put one half in a box. Pull out one object at a time and ask the child what goes together with the object and why (same function, similar items). Discuss the words "pair" and "set."

Questions: What goes together with this? How are they alike? How are they different? How many sets do we have? How many objects do we have altogether?

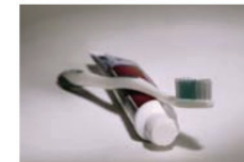
Reflect:

During and after the activity reflect on what the student is doing/has done.

Questions: What did we do today? What did you do first? Next? Last? How did you know how to make sets?

Math Observation Checklist:

This activity will give insight into the student's skills in sorting, matching, counting, sequencing, position, systematic exploration, correct orientation in space, taking all the available information into account, and attending to relevant details.



Supplies

Paper or plastic plates; plastic spoons, forks, and knives; napkins; paper cups; and some play food.

The Activity

The student will work on one-to-one correspondence by setting the table, matching each place setting to a person.

Variations

- Ask the student to serve soup in bowls and set the table again. Discuss why fewer utensils are needed. Compare the number of utensils required for different types of meals, such as meat and potatoes, sandwiches, or finger food.

Focus:

Encourage the student to focus their attention on the task at hand. Allow the student to get acquainted with the objects by touching and discussing what they are. Then explain that they will set the table. Formulate a plan with the student.

Questions: What do we have here? Can you tell me what this is? What can we do with these things? Let's make a plan—what shall we do first? And then?

Act:

Ask the student to draw a picture of each person who will attend the “dinner party.” Then place the drawings on the table and ask the student to set the table with the utensils and plates.

Questions: How many place settings do we need? How many objects are in each place setting? How many things altogether? How did you know that? If we have this many people at our party, how many cookies do we need? Why? If one person does not want a cookie, how many cookies do we need?

Reflect:

During and after the activity reflect on what the student is doing/has done.

Questions: What did we do today? What did you do first? Next? Last? How did you know how to set the table? How did you know how many plates you needed?

Math Observation Checklist:

This activity will give insight into the student's skills in sorting, matching, counting, ordinality, one-to-one correspondence, position, systematic exploration, correct orientation in space, and taking all available information into account.



Supplies

Poster board of different colors cut into puzzle pieces; front of a cereal box cut up as a puzzle; simple puzzles; floor puzzles.

The Activity

The student will assemble the puzzle by putting the pieces together.

Variations

- Have the student create a puzzle by making a drawing, then glue it onto poster board and cut it into different-sized pieces. The student will then reassemble the pieces to form the complete picture again.

Focus:

Encourage the student to focus their attention on the task at hand. Allow the student to get acquainted with the objects by touching and discussing what they are. Formulate a plan with the student.

Questions: What do we have here? Can you tell me what this is? What can we do with these pieces? Let's make a plan. What shall we do first? And then?

Act:

The student will put together the puzzle. Discuss the strategy to use, such as sorting out all the corner pieces first, then the side pieces, and finally assembling the outline of the puzzle.

Questions: What do you need to look for when you want to find a corner piece? A side piece? How can you tell which pieces fit together (e.g., color, shape)? How many corner pieces do we have? How many side pieces? Do we have more corner pieces or side pieces?

Reflect:

During and after the activity reflect on what the student is doing/has done.

Questions: What did we do today? What did you do first? Next? Last? How did you know how to match the pieces? What did you like the best? What did you do when I asked you?

Math Observation Checklist:

This activity will give insight into the student's skills in counting, sorting, shapes, position, systematic exploration, taking all the available information into account, and attending to relevant information.



Supplies

Several different puzzles with knobs, puzzles with pieces to be fitted in (such as numbers), and large floor puzzles.

The Activity

The student will take the puzzle pieces out and then put them back together.

Variations

- Take two puzzles and mix up all the pieces. Have the student determine where each piece belongs.

Focus:

Encourage the student to focus their attention on the task at hand. Allow the student to get acquainted with the objects by touching and discussing what they are. Formulate a plan with the student.

Questions: What do we have here? Can you tell me what this is? What can we do with these pieces? Let's make a plan. What shall we do first? And then?

Act:

The student will take the puzzle apart and decide on a strategy to put it back together, such as matching by the picture underneath or by the shape. Encourage the student to look first and try to determine where each piece goes, rather than relying on trial and error.

Questions: What do you need to look for to find out where this piece goes? How can you tell if it fits? How many pieces are in this puzzle? How did you know that? Which of these two puzzles has more pieces? How can we find out?

Reflect:

During and after the activity reflect on what the student is doing/has done.

Questions: What did we do today? What did you do first? Next? Last? How did you know how to match the pieces?

Math Observation Checklist:

This activity will give insight into the student's skills in counting, sorting, shapes, position, systematic exploration, taking all available information into account, and attending to relevant information.



Supplies

Objects to be matched (such as plastic utensils, toy cars and drivers, cups and plates), workmat or construction paper, string, and markers.

The Activity

The student will work on one-to-one correspondence by matching each item with another, describing how and why certain items go together.

Variations

- After matching and categorizing the items, ask the student to determine which category has more or fewer items. Have the student create a bar graph of the categories using markers and graph paper. Then, go around the room and have the student find things that match, asking which category those items would fit into.

Footnote

¹ A bar graph is a graphic means of comparing the amount of something by using rectangles with lengths proportional to the amount of the groups or categories being compared. The do2learn.com website has graph paper you may download for this exercise.

Focus:

Encourage the student to focus their attention on the task at hand. Allow the student to get acquainted with the objects by touching and discussing what they are. Then explain that they will match objects that go together. Formulate a plan with the student.

Questions: What do we have here? Can you tell me what this is? What can we do with these pieces? Let's make a plan. What shall we do first? And then?

Act:

Ask the student to lay out the objects and connect the ones that go together by drawing a line or by placing a piece of string between them. Then, have the student organize the items into categories (e.g., utensils, transportation, or toys).

Questions: How many groups of [category] do we have? How many things altogether? How did you know that? Why do these [items] go together? What if I put this [item] here—how would they go together now? Are there any items that did not match?

Reflect:

During and after the activity reflect on what the student is doing/has done.

Questions: What did we do today? What did you do first? Next? Last? How did you know which items to match?

Math Observation Checklist:

This activity will give insight into the student's skills in sorting, categorizing, matching, counting, ordinality, one-to-one correspondence, systematic exploration, correct orientation in space, taking all available information into account, and attending to relevant details.

