

Similarity & Difference



Concept Attainment

Concept Attainment Strategy

- 1) The teacher provides examples and non-examples of the concept. These can often be presented as a “Yes” (examples) and a “No” (non-examples).
- 2) Examples and non-examples are presented one set at a time.
Teacher has students focus on what the examples have in common (common attributes).. The teacher may provide other instructions, depending on age, complexity of the concept, and student familiarity with concept attainment. (eg. “Focus on the examples’ properties rather than their locations”).
Teacher also suggests to look at the non-examples and identify what attribute may be missing that makes it a non-example.
Developing opposite concepts (eg. cause and effect) can accomplished by making a “Group A” and a “Group B.” Group A becomes the example for one concept and Group B the non-examples of the other concept, and vice-versa.
- 3) As examples and non-examples are presented, students are asked to hypothesize about the concept. In other words, students try to identify the essential attributes of the concept (and all the examples. If a student thinks she knows what the attributes are, she should provide an example rather than state what the attributes are to give others the opportunity to keep thinking.
- 4) Teacher encourages students to share the thinking that occurred during the process.
eg. “I thought the examples were _____, but when you presented the _____ example, my hypothesis did not fit any more.”
- 5) When the concept and essential attributes are identified, the teacher can provide examples and non-examples for students to classify as examples or non-examples and justify their classification; the students can be asked to find or generate more examples.

NOTE

This activity uses the concept “**observation**” and “**property.**” Students should know what “observations” and “properties” are prior to completing this activity.

“**Properties**” are introduced in Kindergarten (Matter) and expanded in Grade 1 (Matter).

“**Observations**” are introduced in Grade 1 (Scientific Methods).

Look at stuffed animals in the picture. I am going to make two kinds of observations about them.



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What do the “Type A” observations have in common?
What do the “Type B” observations have in common?



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Type A	Type B

What do the “Type A” observations have in common?
What do the “Type B” observations have in common?



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Type A	Type B
They are both objects. (Property: Plant, Animal, Object)	

What do the “Type A” observations have in common?
What do the “Type B” observations have in common?



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Type A	Type B
They are both objects. (Property: Plant, Animal, Object)	One is a toy pig and the other is a toy hamster. (Property: Shape)

What do the “Type A” observations have in common?
What do the “Type B” observations have in common?



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Type A	Type B
They are both objects. (Property: Plant, Animal, Object)	One is a toy pig and the other is a toy hamster. (Property: Shape)
They are standing. (Property: Position)	

What do the “Type A” observations have in common?

What do the “Type B” observations have in common?



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Type A	Type B
They are both objects. (Property: Plant, Animal, Object)	One is a toy pig and the other is a toy hamster. (Property: Shape)
They are standing. (Property: Position)	One has a flat nose. The other has a round nose.(Property: Shape)

What do the “Type A” observations have in common?

What do the “Type B” observations have in common?



Photo by [Nguyen Dang Hoang Nhu](#) on [Unsplash](#)

Type A	Type B
They are both objects. (Property: Plant, Animal, Object)	One is a toy pig and the other is a toy hamster. (Property: Shape)
They are standing. (Property: Position)	One has a flat nose. The other has a round nose.(Property: Shape)
They are non-living. (Property: Living/Non/Living)	

What are more examples of “Type A” and “Type B” observations?



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Type A	Type B
They are both objects. (Property: Plant, Animal, Object)	One is a toy pig and the other is a toy hamster. (Property: Shape)
They are standing. (Property: Position)	One has a flat nose. The other has a round nose. (Property: Shape)
They are non-living. (Property: Living/Non/Living)	One looks squishier than the other. (Property: Texture)
?	?
?	?

What is a **GOOD NAME** for each type of observation?



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Type A	Type B
They are both objects. (Property: Plant, Animal, Object)	One is a toy pig and the other is a toy hamster. (Property: Shape)
They are standing. (Property: Position)	One has a flat nose. The other has a round nose. (Property: Shape)
They are non-living. (Property: Living/Non/Living)	One looks squishier than the other. (Property: Texture)
?	?
?	?



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SIMILARITIES	DIFFERENCES
Similarities are properties that are alike between things or people.	Differences are properties that are not alike between things or people.

PRACTICE



What are some observations that are similarities?
What are some observations that are differences?

Similarity	Difference