

Properties of Matter - Making Comparisons

USING OBJECTS ON A FARM TO MAKE COMPARISONS

ESSENTIAL QUESTION

How can I compare objects using their weight, size and length?

WHAT ARE WE LEARNING?

- The physical properties of different objects
- To make simple comparison statements
- To order and compare objects by weight, length and size

TRY THIS WITH

- Year Level 0-2
- Students who have an interest in investigating to find answers
- Students who love hands on learning

FIND

- Select
- Match
- Predict
- Label
- List
- Demonstrate

Watch Ernie's [Heavy and Light Game](#) as a starter.

Introduce the words; light / lighter than, heavy / heavier than, long / longer than, short / shorter than, big / bigger than and small / smaller than.

Display a selection of objects.

Make a range of predictions / guesses:

- Which is bigger, longer or heavier than?
- Which could you pick up with one hand?
- Find two objects that are about the same length or size

Ask how they might check to see if their guesses were right.

Try some of the suggestions and model making statements (e.g. the ball is heavier than the eraser).

APPLY

- Categorise
- Compare
- Investigate
- Group
- Experiment
- Order

Divide the students into groups.

Give each group a selection of objects, some balance scales, an icecream container, a cup and a piece of string. Discuss how the scales, container, cup and string might help with heavier, lighter, longer, shorter, bigger and smaller comparisons.

Carry out a mini investigation in each group and practice making comparison statements. For younger students this could be directed by prompts from the teacher and subsequent 'exploring time'.

Record students investigations using Instagram and Overgram their comparison statements on each photo (e.g. The teddy bear is bigger because it doesn't fit in the cup).

PRODUCE

- Think
- Agree
- Decide
- Choose
- Estimate
- Explain

Complete the [Lighter Than, Heavier Than](#) activity.

Support students by modelling examples with them as necessary.

Write comparison statements to accompany each set or pair up and 'read' each pictorial statement together.

Compare the students ideas as a class. Can they explain why they think a calf shed would be bigger than a calf?

Finish by playing a longer / shorter guessing game.

Choose a student to lie on the floor. Ask students who think they are longer than that student to lie next to them. Anyone left standing can check to see who was right.



SUCCESS CRITERIA

Students can check they have successfully completed the task by:

- Completing the [Lighter Than, Heavier Than](#) activity with our without support as appropriate
- Making a comparison statement during their mini investigation
- Using relevant comparison vocabulary

PRINCIPLES	VALUES	KEY COMPETENCIES	LEARNING AREAS	WORD BANK	RESOURCES REQUIRED
Coherence Learning to learn	Innovation, inquiry and curiosity Excellence	Thinking Using language, symbols and texts Participating and contributing	Science Mathematics and Statistics	Compare Guess Order Investigate	Ernie's Heavy and Light Game video Lighter Than, Heavier Than activity