

DINOSAUR MATHS

Maths: Measurement, Space

The steps that your students will follow have been extracted from the worksheets for your convenience. All students will need all three of the worksheets. Extra resources for the activities include:

- ◆ Seven x one metre rulers
- ◆ Clipboards (or books to lean on when pacing outside)
- ◆ Scissors
- ◆ Glue
- ◆ *Dinosaurs Alive!* Posters / dinosaur fact sheets

Step 1: *Cut out the dinosaurs from the Dinosaur Maths Activity Sheet.*

Step 2: *Using the Dinosaurs Alive! website, record the genus (name) and size of each dinosaur on the back of the matching image.*

Step 3: *Put the dinosaurs in order from the smallest to the largest.*

Step 4: *Transfer the information on the back of the tiles into the correct space, before gluing them into the boxes in size order.*

Step 5: *Head into the school grounds and lay out seven metre rulers end to end. Find out how many paces cover seven metres. Calculate how many paces would match the length of a 21 metre Apatosaurus and pace it out. This method can help you to imagine the scale of the dinosaurs. As a class, work out the answers to the remaining questions: As big as... Bigger than... Smaller than...*

Extension activity: *A palaeontologist can calculate the approximate height of a dinosaur by multiplying the length of its femur (thigh bone) by five. Is this true for your height? Work it out.*

Other related activities:

- ◆ Pace out other objects of scale for size comparisons (i.e. school bus), or consider whether the dinosaur could fit within the school hall, classroom, gymnasium, etc.
- ◆ List dinosaurs that are smaller and bigger than the students.
- ◆ When pacing out the length of a dinosaur, students could draw an outline of the creature in chalk on the ground.

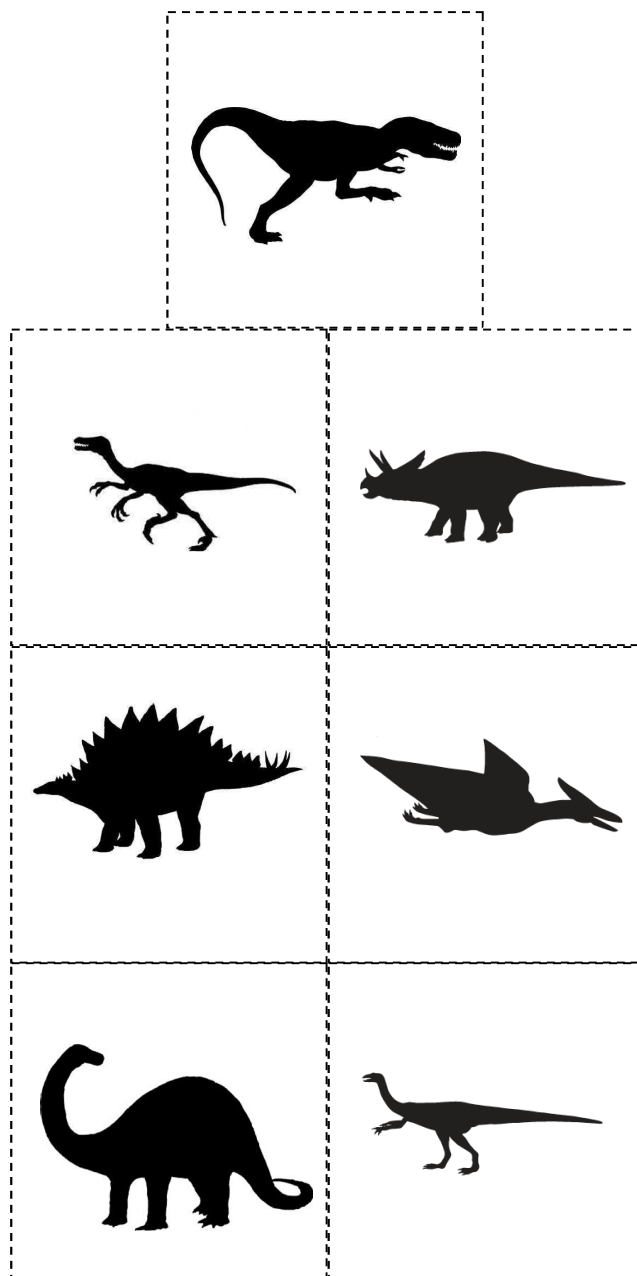
ACTIVITY SHEET

DINOSAUR MATHS



Step 1: Cut out the dinosaurs below.

Step 2: Using the **Dinosaurs Alive!** website record the genus (name) and size of each dinosaur on the back of the matching image.



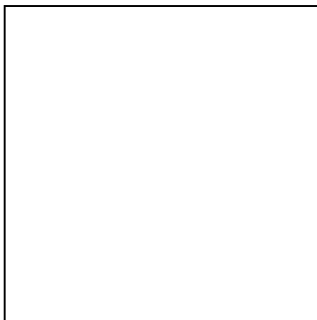
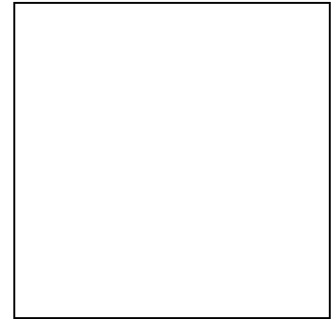
ACTIVITY SHEET

DINOSAUR MATHS

Step 3: Put the dinosaurs in order from the smallest to the largest.

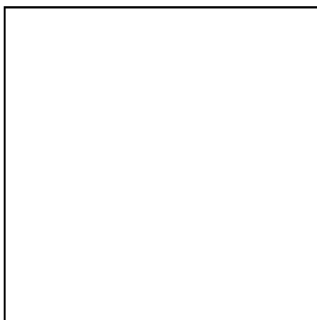
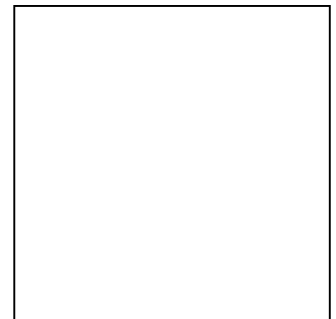
Step 4: Transfer the information on the back of the tiles into the correct space, before gluing them into the boxes in size order.

Genus (name) _____
Length _____
As big as... _____
Bigger than... _____
Smaller than... _____



Genus (name) _____
Length _____
As big as... _____
Bigger than... _____
Smaller than... _____

Genus (name) _____
Length _____
As big as... _____
Bigger than... _____
Smaller than... _____



Genus (name) _____
Length _____
As big as... _____
Bigger than... _____
Smaller than... _____

ACTIVITY SHEET

DINOSAUR MATHS

Genus (name) _____

Length _____

As big as... _____

Bigger than... _____

Smaller than... _____

Genus (name) _____

Length _____

As big as... _____

Bigger than... _____

Smaller than... _____

Genus (name) _____

Length _____

As big as... _____

Bigger than... _____

Smaller than... _____

Step 5: Head into the school grounds and lay out seven metre rulers end to end. Find out how many paces cover seven metres. Calculate how many paces would match the length of a 21 metre Apatosaurus and pace it out. This method can help you to imagine the scale of the dinosaurs. As a class, work out the answers to the remaining questions: As big as... Bigger than... Smaller than...

Extension: A palaeontologist can calculate the approximate height of a dinosaur by multiplying the length of its femur (thigh bone) by five. Is this true for your height? Work it out.

DINOSAUR POSTER

Technology & Enterprise: technology process, materials

This activity guides students through a basic version of the technology process and allows students to utilise a range of technologies and materials. It asks students to:

- ◆ 'Investigate' their target audience
- ◆ 'Devise' a design plan
- ◆ 'Create' plasticine characters and props, plus a digital poster
- ◆ 'Evaluate' their results

The end product is a poster, advertising a fictional dinosaur clay animation TV series. Resources required:

- ◆ Plasticine
- ◆ Coloured / white card
- ◆ Digital camera
- ◆ Computer with a basic imaging program, i.e. Adobe Photoshop Elements, Paint
- ◆ Printer (not essential)

Teachers will need to take a photograph of each student's work and upload this onto the school computer system. This will enable students to access their file and to incorporate text into their design.

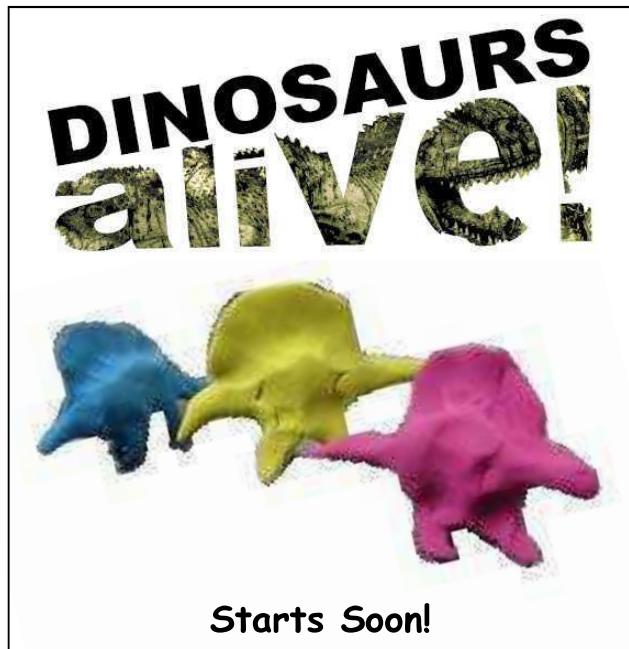
To simplify the photographic process, one station could be set up with a card backdrop, and camera on a tripod in a position with plenty of natural light. This would allow students to install their characters in front of the camera and will save time moving equipment around.

If skills permit, teachers may also show the students some basic editing techniques to enhance their photograph.

DINOSAUR POSTER

Imagine a new TV series about a family of dinosaurs living in Australia today has been created. It will be a clay animation and the television series will be screened 3.30-4pm weekdays.

Your task is to design and create a poster advertising the new TV show. Here is an example of a poster for inspiration:



Follow the steps and have fun. Good luck!

INVESTIGATING

Step 1:

Investigate who is likely to watch a dinosaur clay animation between 3.30pm and 4pm on weekdays. Discuss this as a class. Write your answer down.

DINOSAUR POSTER

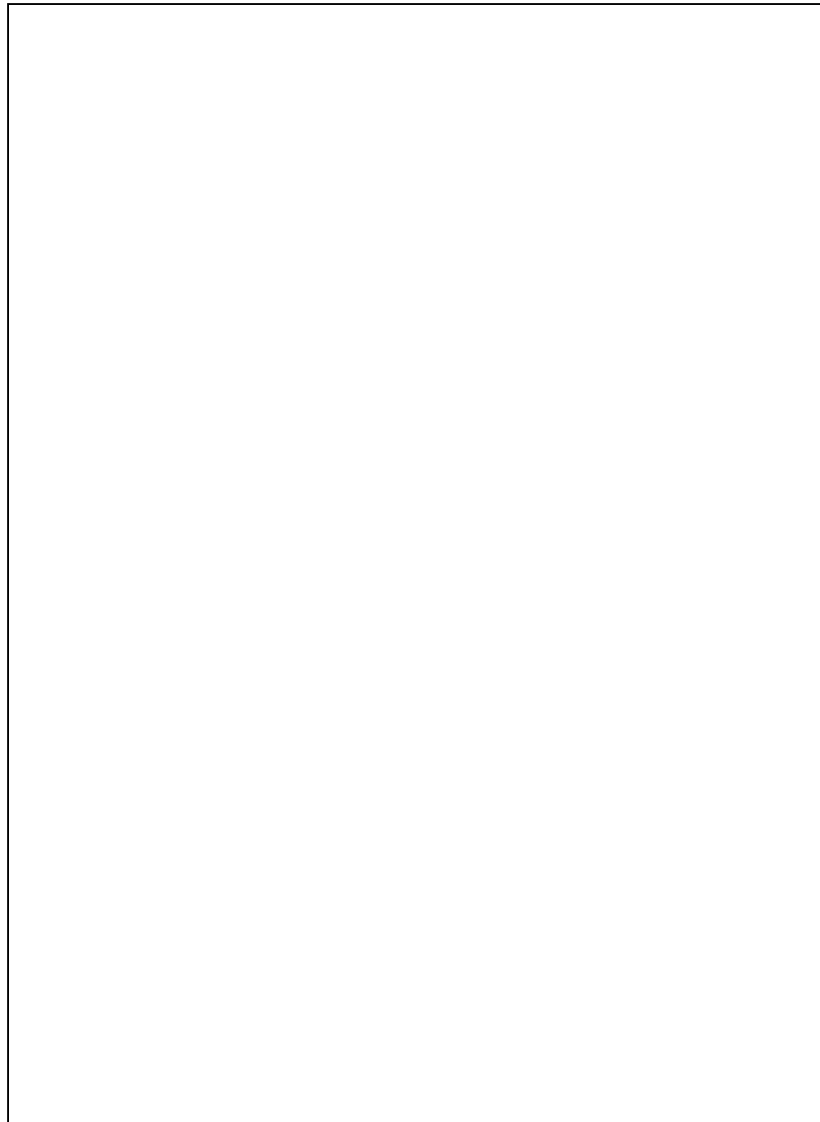
DEVISING

Step 2:

Plan your poster by sketching and then labelling your idea. Include:

- ◆ Clay dinosaurs
- ◆ Props
- ◆ Show title (you must think of a name)
- ◆ TV channel and time of show

Draw your design in the space below.



DINOSAUR POSTER

PRODUCING

Step 3:

Use plasticine to create your dinosaur characters and props. Here is an example:



© Ivan Kruk

Step 4:

Use coloured or white card for your backdrop and ask your teacher to take a photograph of your creation.

Step 5:

Open up your photograph on the computer in an imaging program (ask your teacher which program). Add the title, television channel and time of show. Save the poster and print a copy for display.

EVALUATING

Step 6:

Congratulations, your poster is complete! Did it turn out as you expected? Are you happy with the results? Write your response below.
