

2017 KRONOSAURUS KORNER SCHOOL CHALLENGE

"ICHTHYOSAURS & SETTING A WORLD RECORD"

[Kronosaurus Korner Marine Fossil Museum is situated in the outback town of Richmond Queensland. A shallow inland sea covered this region and much of the state 100 million years ago.]

Part 1: ICHTHYOSAURS

One of the fascinating creatures that lived in this sea was the ichthyosaur
(pronounced "ik-thee-o-sore").

Some describe the ichthyosaur as being "*part dolphin part crocodile*".

Is "part dolphin part crocodile" a *good description for an ichthyosaur*?

Carry out an investigation to find out. Then write a report (addressed to the manager of 'KK') to summarise your findings.

Part 2: SETTING A WORLD RECORD

We want to do something that will draw attention to our museum.

One of the most famous ichthyosaurs in our collection is called 'Wilson' (named for the family of the 7 year-old girl who found him.) Like all our fossils 'Wilson' is close to 100 million years old.

We are thinking about throwing 'Wilson' a birthday party and, at the same time, setting a new world record. We are thinking of making 'Wilson' a birthday cake, a birthday cake big enough to hold 100 million candles!

What would be involved in making such a cake?

Write the manager of our museum a letter with your response to this question. Be sure to include the costs and other practical considerations she should take into account before deciding whether or not to proceed with this idea.

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IMPORTANT CONTACT TEACHER INFORMATION

THE 2017 CHALLENGE

Thank you for taking an interest in this year's Challenge. We think you and your students will find the Challenge a unique and valuable learning experience. It is designed to be challenging, different and most of all fun.

This year's Challenge is a 2- part challenge. The task in each part is designed to appeal to a range of students. A wide range of outcomes are possible and anticipated. That is why the same challenge is to be presented to Junior (Gr 5-6), Intermediate(Gr 7) and Senior (Gr 8-9) teams.

GETTING STARTED

You may start the Challenge whenever you wish.

Teams must submit their work to you no more than one month after starting the Challenge.

HOW TEAMS OPERATE

To maximize interaction, a team can have no fewer than 3 members and no more than 5 members.

It is expected that a team will work collaboratively on both parts of the Challenge and produce a single (team) submission for each part. It is expected that team members will decide how they will organize themselves to work on the two tasks and produce their joint submission for each task. You, or another teacher or other teachers, can facilitate this.

It is left to you and your students to decide how each team operates. Some may wish to run several meetings at lunch times, or after school like a club. Some may wish to take on specific tasks as home assignments. Team members should feel free to carry out any research they deem necessary. Students should feel free to seek feedback on their ideas from non-team members. It is important however, that a team's submission be created by team members only, using strategies, results and formats agreed to by the team.

ASSESSMENT

School submissions will be assessed by team members, by you the teacher and thirdly by judges at Kronosaurus Korner. Team members should be made aware of how their work will be other-assessed and self-assessed before they start the Challenge. This knowledge should help them shape how they work and make their efforts more productive. That is why each team should be given copies of the three supplied assessment rubrics along with the 2017 Challenge tasks.

Notice that a team will submit a mark out of 100, the teacher a mark out of 100 and the judges at 'KK' a mark of 200.

SUBMISSIONS

You are responsible for e-mailing Team submissions and the two completed assessment sheets to manager@kronosauruskorner.com.au

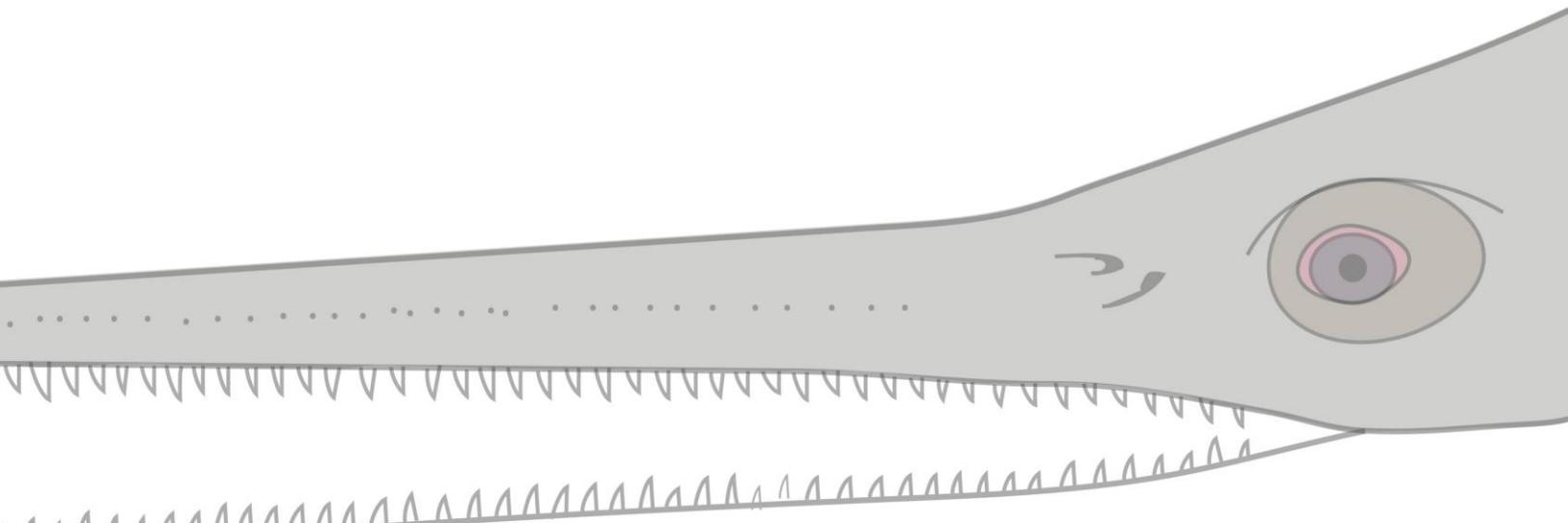
Remember, only submit the work of one team for each level participating in the Challenge. November 15, 2017 is the deadline for submissions.

FEEDBACK

Museum officials will e-mail your team(s) results, along with some feedback for your team members.

We encourage you to give us feedback on how the Challenge worked in your school along with suggestions for improving future Challenges.

Any questions? Contact manager@kronosauruskorner.com.au



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TEACHER'S TEAM ASSESSMENT FORM

SCHOOL _____ TEACHER _____

ADDRESS _____

CONTACT: tel _____ e-mail _____

TEAM LEVEL (circle one) Junior Gr 5-6 Intermediate Gr 7 Senior Gr 8-9

TEAM MEMBERS (print) 1 _____

2 _____ 3 _____

4 _____ 5 _____

1. Initially team needed minimum level of assistance from me _____ / 8
2. Team came up with good plan of attack for both parts of challenge _____ / 8
3. Team made reasonable estimates and assumptions _____ / 8
4. Team was self-directed _____ / 8
5. All team members made positive contributions _____ / 8
6. Team members demonstrated good interpersonal skills _____ / 8
7. Team members demonstrated creativity and problem solving abilities _____ / 8
8. Team edited and refined their draft report and letter _____ / 8
9. Team members demonstrated good communication skills _____ / 8
10. Team Part 1 report and Part 2 letter complete _____ / 8
11. Team made good use of their time _____ / 8
12. This team (and teacher) enjoyed the Challenge _____ / 12

TOTAL _____ / 100

Comments / suggestions for improving Challenge are welcome. Use separate page.

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Judge's Scoring Rubric

1. Both parts of Challenge well-researched / 40

2. Reasonable assumptions and estimates used / 20

3. Part 2 arithmetically correct / 20

4. Report and letter well-organized and communicated / 40

5. Convincing and well-reasoned conclusions / 20

6. Comprehensive report and letter / 20

7. Response to both parts interesting and entertaining / 40

TOTAL / 200

