

MATHS AND AGRICULTURE

STEM CHALLENGE

A PIEFA MEMBERS COLLABORATION



FOR
YEAR 2

FRDC
FUN WITH FISHERIES



FRDC



Primary Industries Education
Foundation Australia



TEACHER OVERVIEW

FUN WITH FISHERIES MULTIPLICATION AND DIVISION CHALLENGE

Year: Two

Outcomes:

Recognise and represent multiplication as repeated addition, groups and arrays (ACMNA031).

Recognise and represent division as grouping into equal sets and solve simple problems using these representations (ACMNA032).

Introduction:

In the following challenges, students will be solving multiplication and division problems with some of the fish and shellfish produced by fisheries and aquaculture.

Task:

1. Show the 'introduction for students' on a projector or interactive whiteboard, reading the information as a class.
2. Explain that students will be solving multiplication and division problems involving fish and shellfish produced by fisheries and aquaculture.
3. Introduce the concept of division by sharing into equal groups.
4. Allow students to work independently to complete the division challenges.
5. Model solving multiplication number sentences using arrays.
6. Allow students to work independently to complete the multiplication challenges.
7. Model creating a multiplication or division number sentence using the pictures on page 3.
8. Allow students to create their own multiplication or division number sentence by cutting and pasting the images.
9. Have students work in pairs to solve their partner's number sentences.

Introduction:

Fisheries and aquaculture provide us with the fish, shellfish and other aquatic products we consume in our daily lives. Aquaculture is the special farming of fish or shellfish for food production. In Victoria, the key species of fisheries and aquaculture production are: abalone, southern rock lobster and barramundi. The Fisheries Research and Development Corporation helps to monitor and protect the health of the marine environment while providing us with all of the seafood we love.



Aquaculture



Fishing



Abalone



Southern Rock Lobster



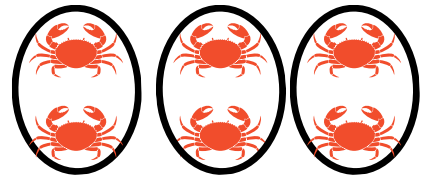
Barramundi

FUN WITH FISHERIES

Make these sets of super seafood into equal groups. Record the division number sentence to match.

1. Count the total number of sea creatures.
2. Circle the correct number of groups.
3. Count how many sea creatures in each group.
4. Record the number sentence.

Make 3 groups



$$6 \div 3 = 2$$

Make 4 groups



There are ____ all together.

There are ____ in each group.

There are ____ groups.

$$\square \div \square = \square$$

Make 3 groups



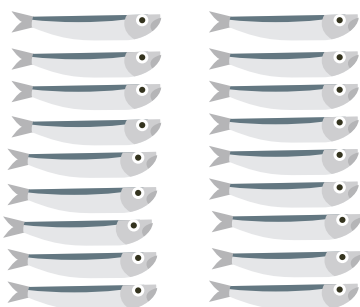
There are ____ all together.

There are ____ in each group.

There are ____ groups.

$$\square \div \square = \square$$

Make 6 groups



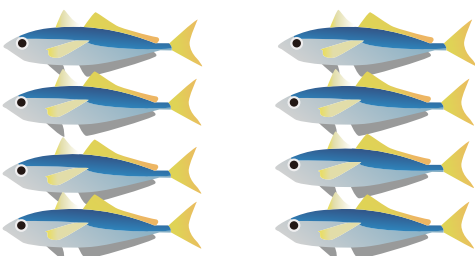
There are ____ all together.

There are ____ in each group.

There are ____ groups.

$$\square \div \square = \square$$

Make 2 groups



There are ____ all together.

There are ____ in each group.

There are ____ groups.

$$\square \div \square = \square$$

FUN WITH FISHERIES

Complete the number sentences to describe each of these aquatic arrays.

1. Count the number of rows.
2. Count how many sea creatures are in each row.
3. Skip count to find the total number.

Row 1



Row 2

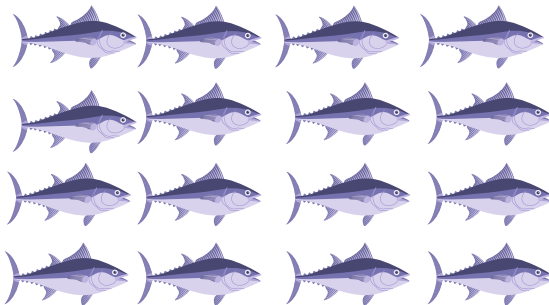


There are ____ rows.

There are ____ in each row.

$$\square \times \square = \square$$

There are ____ all together.



There are ____ rows.

There are ____ in each row.

$$\square \times \square = \square$$

There are ____ all together.



There are ____ rows.

There are ____ in each row.

$$\square \times \square = \square$$

There are ____ all together.



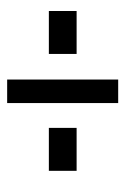
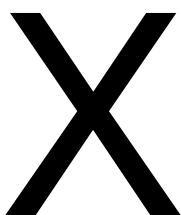
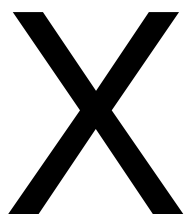
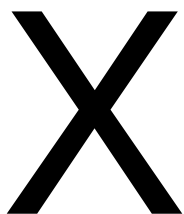
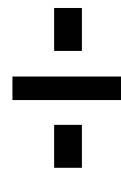
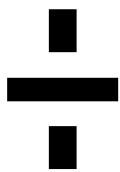
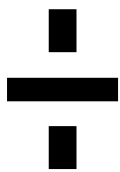
There are ____ rows.

There are ____ in each row.

$$\square \times \square = \square$$

There are ____ all together.

Cut out the pictures to make your own division and multiplication number sentences. Find a partner to solve the challenges you create.





Barramundi



Barramundi



Barramundi



Barramundi



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Barramundi



Abalone



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