Island Numeracy Assessment

Grade 3+: Number Sense (fractions)

Collaborative Task

Images for **Notice/Wonder** routine (originally attributed to Annie Fetter). We have adapted these from Creative Math Prompts on 5280math.com

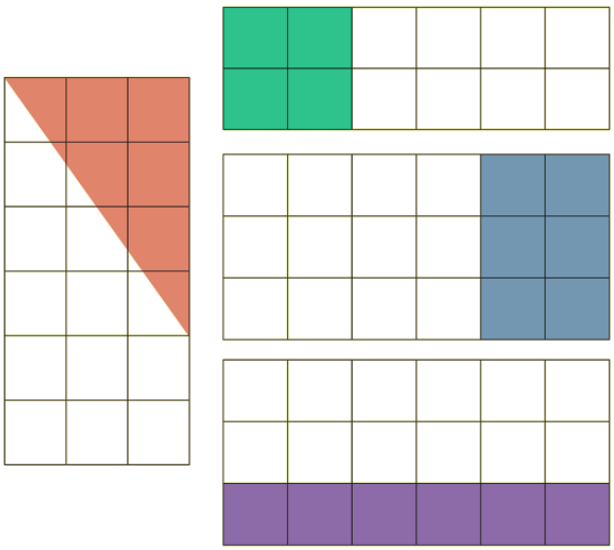
These prompts to observe (notice) and question (wonder) are designed to encourage collaboration around mathematical visuals. Assessment observations and conversations will provide rich evidence of student thinking for the teacher (i.e. conceptual understanding, reasoning, creativity, curiosity etc).

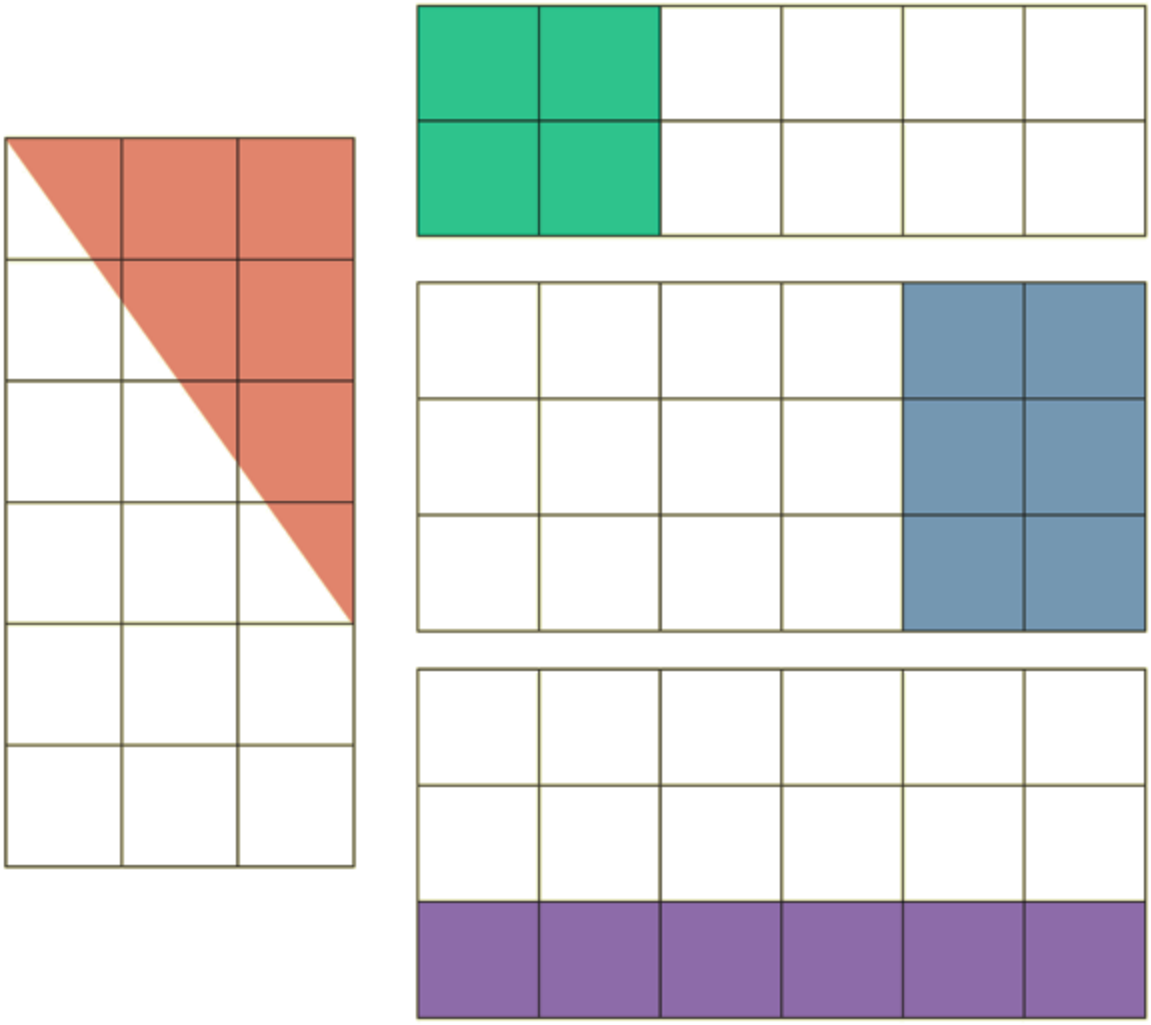
Prompts for students: **What do you notice? What do you wonder?**

The following information in italics is for teacher only. This is what we hope students will notice and wonder; ways to see thirds.

I notice all shapes are rectangles.
I notice one rectangle has just 2 rows while the others have 3 rows

I wonder if each show a fraction
I wonder how much of the whole is shaded



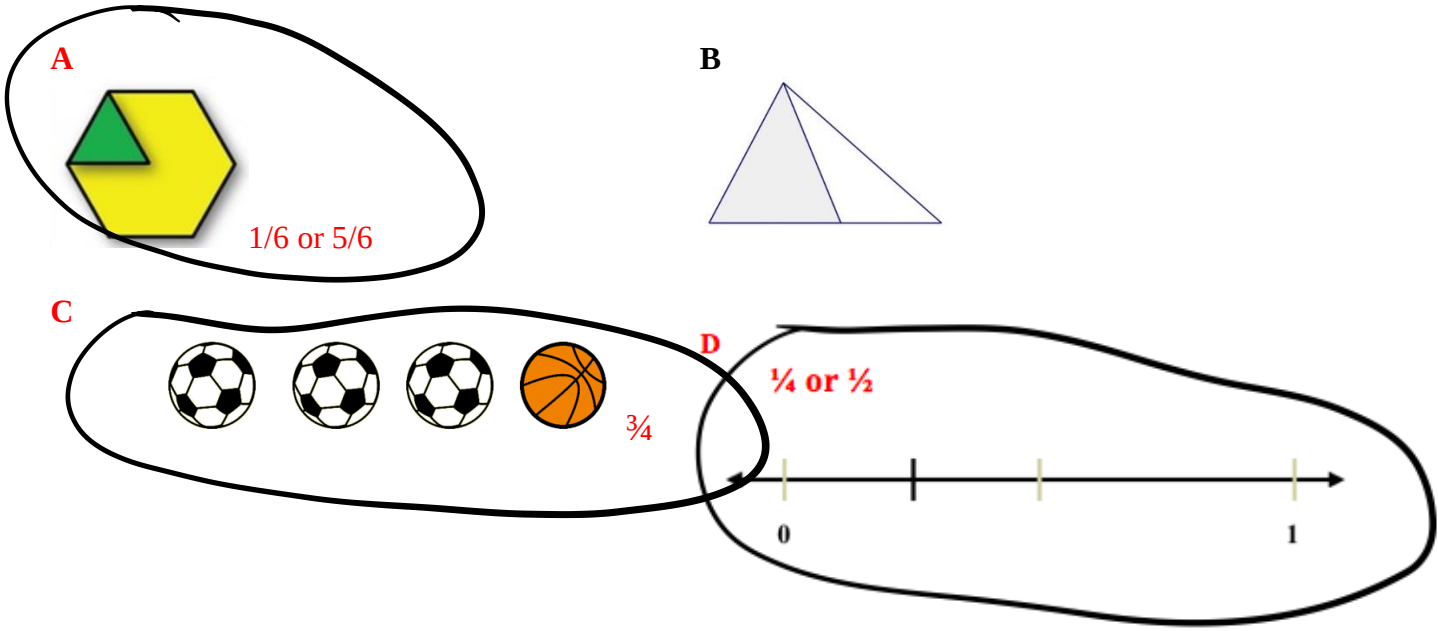


Island Numeracy Assessment

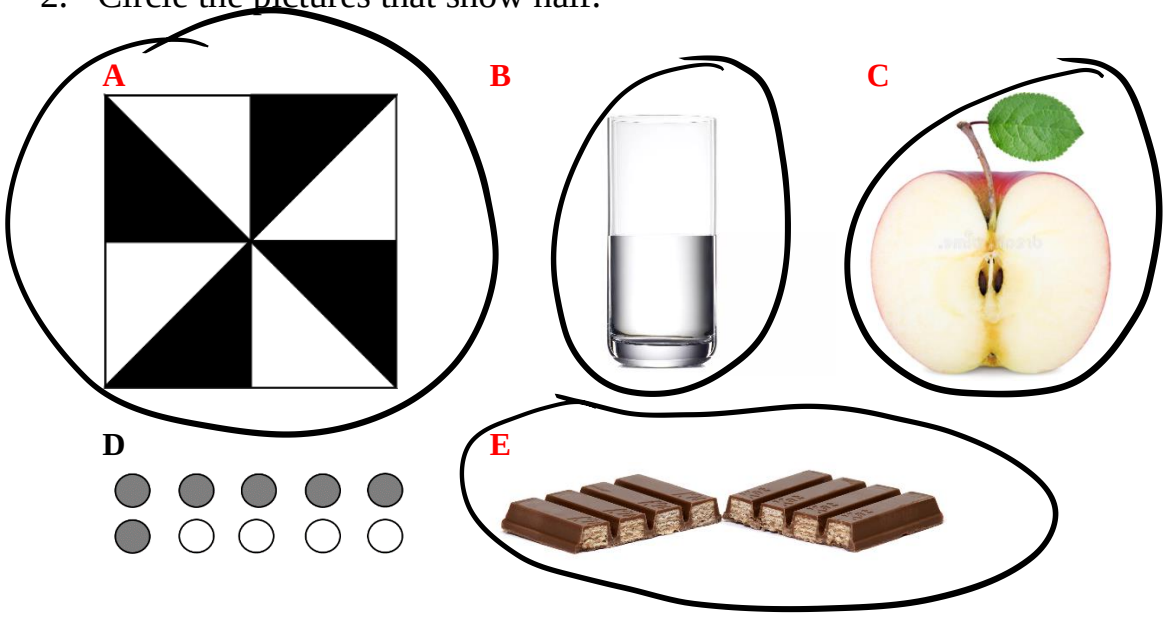
Grade 3+: Number Sense (fractions)

Select and constructed response questions

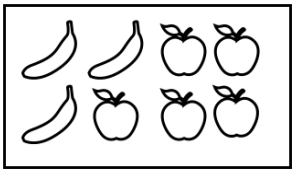
1. Circle the pictures that show a fraction and write the fraction next to each.



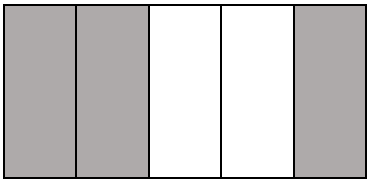
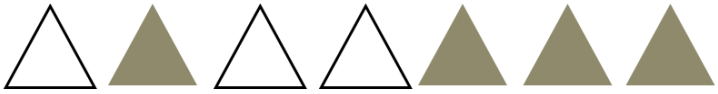
2. Circle the pictures that show half.



3. Draw an arrangement of fruit which shows 5/8 as apples.



Island Numeracy Assessment Grade 3+: Number Sense (Fractions)

Assessment Question:	Answer Key
4. Draw a picture for each fraction: $\frac{4}{6}$ $\frac{2}{4}$	Representations may include: Number line model, set model, parts of a region
5. You are going to share a piece of cake with your friend. Would you rather have 4/6 of the cake or 3/6 of the cake? Explain your thinking using pictures, numbers or words.	Answers will vary
6. Zoe said that her fraction is greater than 2/10 but less than 6/10. What might her fraction be?	3/10 4/10 5/10 ½ 2/5
7. What fraction of the shape is shaded? What fraction is not shaded?  shaded _____ unshaded _____	3/5 shaded 2/5 unshaded
8. What fraction of the set is shaded? What fraction of the set is not shaded?  shaded _____ unshaded _____	4/7 shaded 3/7 unshaded

Island Numeracy Assessment Grade 3+: Number Sense (Fractions)

Performance Task

Show how the two situations are different:

Sharing two candy bars equally between 6 children?

OR

Sharing one candy bar equally between 4 children?

Show your thinking around how much chocolate each person will receive.

Island Numeracy Assessment

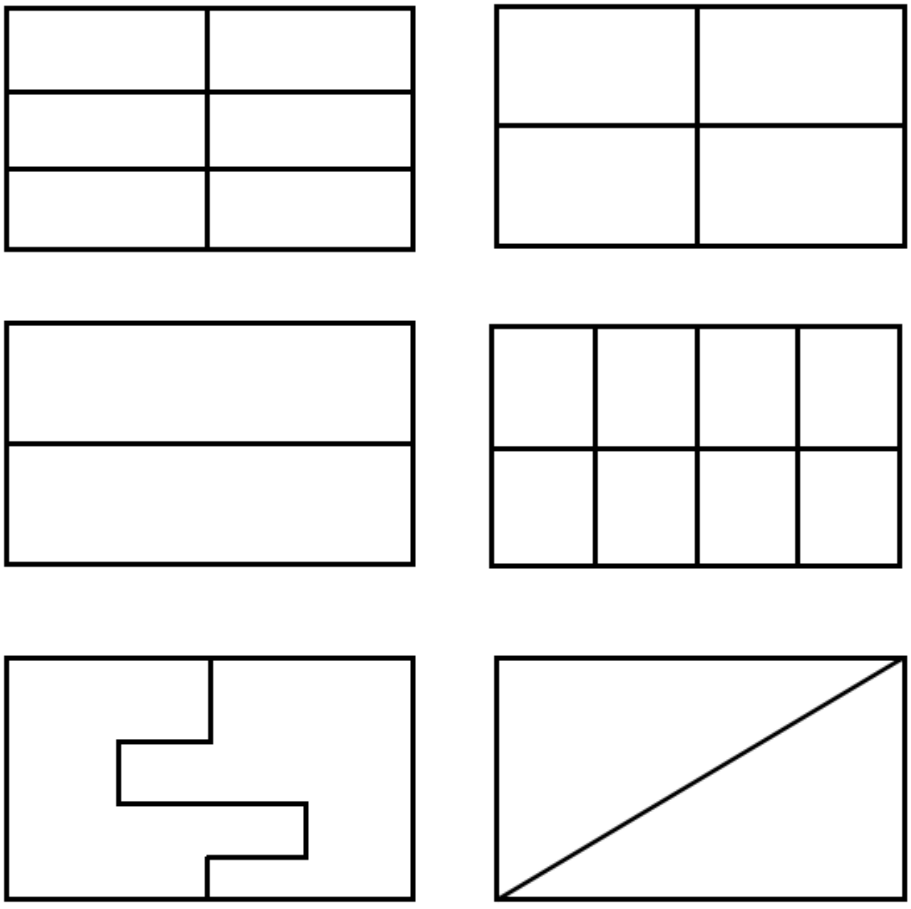
Grade 3+: Number Sense (fractions)

Performance Task adapted from Marion Small, Eyes on Math (2013), pg. 58.

Shade ½ of each shape.

How could you make sure the pictures really do show halves?
Can one half be made up of more than one piece of a whole? Explain your thinking. (Fair-shares understanding, but does not limit how the whole could be divided up)

Allow students to show their understanding. Does the student understand that half is only applied when the parts have equal area?



Suggested extension: Have students use square tiles of two colours to build a rectangle shape. Half of the rectangle should be of each colour.