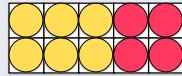
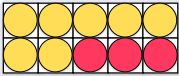


To be able to find and make number bonds to 20



Starter:

What's the same? What's different?



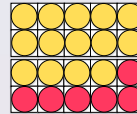
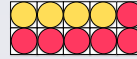
Explain your answer.

To be able to find and make number bonds to 20



Activity 1:

Use the ten frame and counters to help you complete the sentences below.



There are \_ yellow counters.  
There are \_ red counters.  
In total, there are \_ counters.  
 $10 = \_ + \_$   
 $10 = \_ + \_$

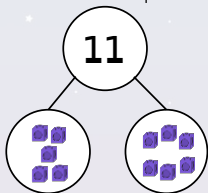
There are \_ yellow counters.  
There are \_ red counters.  
In total, there are \_ counters.  
 $20 = \_ + \_$   
 $20 = \_ + \_$

To be able to find and make number bonds to 20



Activity 2:

Use cubes and a part-whole model to find all the number bonds to 11.



$11 = 11 + \_$   
 $11 = 10 + \_$   
 $11 = \_ + \_$   
 $11 = \_ + \_$   
 $11 = \_ + \_$   
 $11 = \_ + \_$   
 $11 = \_ + \_$   
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 $11 = \_ + \_$   
 $11 = \_ + \_$   
 $11 = \_ + \_$

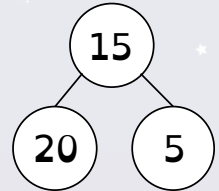
To be able to find and make number bonds to 20



Activity 3:

James has tried to represent a number bond to 20 using a part-whole model.

Do you agree with how James has set out the part-whole model?  
Explain your answer.



To be able to find and make number bonds to 20



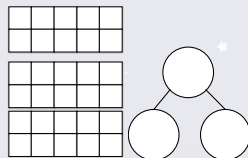
Activity 4:

Use part-whole models, ten frames and mathematical equipment to represent the following number bonds:

- a)  $4 + 6 = 10$
- b)  $16 + 4 = 20$
- c)  $14 + 6 = 20$

What's the same? What's different?

Explain your answer.



To be able to find and make number bonds to 20



Activity 5:

James says, "If 20 is worth twice as much as 10, there must be twice as many number bonds to 20 as there are number bonds to 10."

Do you agree?  
Explain your answer.

To be able to find and make number bonds to 20



Evaluation:

The two numbers  
within a number bond  
to twenty are either  
both even or both odd.



Is Astrobee's statement always, sometimes or never true?  
Explain your answer.