Get Your Student Talking about Math!

Math discourse is an essential part of learning mathematics. By talking about math, students gain deeper understanding, more easily retain what they learn, and develop their “math confidence.”

The Math Discourse Cards for Families from i-Ready Classroom Mathematics, along with these sample activities, were designed to get students asking questions and sharing their math ideas and strategies.

Try using these sample activities to understand how you can encourage mathematical conversations between you and your student. Also, be sure to supply your student with materials to encourage hands-on exploration.

It may take several tries to really get the conversation going, so be patient and persistent, and be sure to reach out to your student’s teacher if you have any questions. Most of all, make it fun!
Set Up
Provide your student with paper and a pencil, as well as materials for hands-on exploration.

Directions
Pose the question:
How many different pairs of numbers can you add together to make 5 using the following number sentence?
___ + ___ = 5

• Allow your student time to explore ways for solving this problem. Be sure to provide tools and materials to help them, such as objects to count like buttons or dried beans, and paper and colored pencils.
• When your student is ready, invite them to share their thinking and describe how they went about solving.
• Use the Math Discourse Cards below to support your student in expanding upon their thoughts.
• As you wrap up the activity, provide your student with affirming feedback on their thoughtful responses, their efforts in solving the problem, their persistence, or their positive attitude in learning something new!

Make Sense of Problems and Persevere
Could you explain what the problem is asking?

Reason, Explain, and Critique
Can you draw a picture or make a model to show how to solve the problem?

Reflect and Connect
Do you see any patterns?

Sentence Starters
I started solving the problem by...

Use the green cards to help your student make sense of a problem and persevere in solving it.

Use the blue cards to help your student explain and/or reason through their thinking.

Use the purple cards to help your student reflect on what they did and make connections to other things they have learned.

Use the red cards to help your student respond to questions.

Explore the full set of Math Discourse Cards for Families.

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### Make 10

**Set Up**

Provide your student with paper and a pencil, as well as materials for hands-on exploration.

**Directions**

Pose the question: **How many different pairs of numbers can you add together to make 10 using the following number sentence?**

\[ \_\_\_ + \_\_\_ = 10 \]

- Allow your student time to explore ways for solving this problem. Be sure to provide tools and materials to help them, such as items to count like buttons or dried beans, and paper and colored pencils.
- When your student is ready, invite them to share their thinking and describe how they went about solving.
- **Use the Math Discourse Cards below** to support your student in expanding upon their thoughts.
- As you wrap up the activity, provide your student with affirming feedback on their thoughtful responses, their efforts in solving the problem, their persistence, or their positive attitude in learning something new!

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<table>
<thead>
<tr>
<th>Make Sense of Problems and Persevere</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Could you explain</strong> what the problem is asking?</td>
<td></td>
</tr>
</tbody>
</table>

Use the **green cards** to help your student make sense of a problem and persevere in solving it.

<table>
<thead>
<tr>
<th>Reason, Explain, and Critique</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Can you draw a picture or make a model</strong> to show how to solve the problem?</td>
<td></td>
</tr>
</tbody>
</table>

Use the **blue cards** to help your student explain and/or reason through their thinking.

<table>
<thead>
<tr>
<th>Reflect and Connect</th>
<th>19</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Do you see any patterns?</strong></td>
<td></td>
</tr>
</tbody>
</table>

Use the **purple cards** to help your student reflect on what they did and make connections to other things they have learned.

<table>
<thead>
<tr>
<th>Sentence Starters</th>
<th>25</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I started solving the problem by...</strong></td>
<td></td>
</tr>
</tbody>
</table>

Use the **red cards** to help your student respond to questions.

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*Explore the full set of Math Discourse Cards for Families.*
**Set Up**

Provide your student with paper and a pencil, as well as materials for hands-on exploration.

**Directions**

Pose the problem:
Walsh Elementary is having a blanket drive for the local charity. Mr. Garcia’s class has collected 28 blankets, and Mr. Abbott’s class has collected 54. How many more blankets does Mr. Abbott’s class have?

- Allow your student time to explore ways for solving this problem. Be sure to provide tools and materials to help them, such as objects to count like buttons or dried beans, and paper and colored pencils.
- When your student is ready, invite them to share their thinking and describe how they went about solving.
- **Use the Math Discourse Cards below to support your student in expanding upon their thoughts.**
- As you wrap up the activity, provide your student with affirming feedback on their thoughtful responses, their efforts in solving the problem, their persistence, or their positive attitude in learning something new!

**Subtract Two-Digit Numbers**

**SAMPLE ACTIVITY**

Use the **green cards** to help your student make sense of a problem and persevere in solving it.

Use the **purple cards** to help your student reflect on what they did and make connections to other things they have learned.

Use the **blue cards** to help your student explain and/or reason through their thinking.

Use the **red cards** to help your student respond to questions.

**Explore the full set of Math Discourse Cards for Families.**
Set Up
Provide your student with paper and a pencil, as well as materials for hands-on exploration.

Directions
Pose the problem: Juanita and Brynham each have an orange for snack. Juanita ate \( \frac{2}{8} \) of her orange, and Brynham ate \( \frac{1}{4} \) of hers. Both oranges are the same size. Did they eat the same amount of orange? How do you know?

- Allow your student time to explore ways for solving this problem. Be sure to provide tools and materials to help them, including paper and colored pencils.
- When your student is ready, invite them to share their thinking and describe how they went about solving.
- **Use the Math Discourse Cards below** to support your student in expanding upon their thoughts.
- As you wrap up the activity, provide your student with affirming feedback on their thoughtful responses, their efforts in solving the problem, their persistence, or their positive attitude in learning something new!

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**Make Sense of Problems and Persevere**

What is this problem about? What can you tell me about it?

Use the **green cards** to help your student make sense of a problem and persevere in solving it.

**Reason, Explain, and Critique**

How would you check your steps or your answer?

Use the **blue cards** to help your student explain and/or reason through their thinking.

**Reflect and Connect**

What ideas did you use to solve this problem?

Use the **purple cards** to help your student reflect on what they did and make connections to other things they have learned.

**Sentence Starters**

I noticed a connection between...

Use the **red cards** to help your student respond to questions.

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Explore the full set of **Math Discourse Cards for Families**.
## Multiplication as a Comparison

### Set Up
Provide your student with paper and a pencil, as well as materials for hands-on exploration.

### Directions
Pose the problem:

Ji is preparing for a party. The local party supplier has 5 party hats. Ji needs 7 times that amount. How many hats does Ji need for her party?

- Allow your student time to explore ways for solving this problem. Be sure to provide tools and materials to help them, including paper and colored pencils.
- When your student is ready, invite them to share their thinking and describe how they went about solving.
- **Use the Math Discourse Cards below** to support your student in expanding upon their thoughts.
- As you wrap up the activity, provide your student with affirming feedback on their thoughtful responses, their efforts in solving the problem, their persistence, or their positive attitude in learning something new!

### Math Discourse Cards

<table>
<thead>
<tr>
<th>Make Sense of Problems and Persevere</th>
<th>Reason, Explain, and Critique</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What is this problem about? What can you tell me about it?</strong></td>
<td><strong>How would your solution look if you used another model?</strong></td>
</tr>
</tbody>
</table>

Use the **green cards** to help your student make sense of a problem and persevere in solving it.

Use the **blue cards** to help your student explain and/or reason through their thinking.

<table>
<thead>
<tr>
<th>Reflect and Connect</th>
<th>Sentence Starters</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Is there a real-life situation where this could be used?</strong></td>
<td><strong>I started solving the problem by...</strong></td>
</tr>
</tbody>
</table>

Use the **purple cards** to help your student reflect on what they did and make connections to other things they have learned.

Use the **red cards** to help your student respond to questions.

Explore the full set of [Math Discourse Cards for Families](#).
**Set Up**

Provide your student with paper and a pencil, as well as materials for hands-on exploration.

**Directions**

Pose the problem: Monica, Shaunda, and Mike are decorating 5 floats for the homecoming parade. If they share the work equally, how much will each student decorate?

- Allow your student time to explore ways for solving this problem. Be sure to provide tools and materials to help them, including paper and colored pencils.
- When your student is ready, invite them to share their thinking and describe how they went about solving.
- Use the Math Discourse Cards below to support your student in expanding upon their thoughts.
- As you wrap up the activity, provide your student with affirming feedback on their thoughtful responses, their efforts in solving the problem, their persistence, or their positive attitude in learning something new!

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**Make Sense of Problems and Persevere**

<table>
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<tr>
<th>How would you explain how to solve this problem to someone who missed class today?</th>
</tr>
</thead>
</table>

Use the **green cards** to help your student make sense of a problem and persevere in solving it.

**Reason, Explain, and Critique**

<table>
<thead>
<tr>
<th>How would your solution look if you used another model?</th>
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Use the **blue cards** to help your student explain and/or reason through their thinking.

**Reflect and Connect**

<table>
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<tr>
<th>What ideas did you use to solve this problem?</th>
</tr>
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</table>

Use the **purple cards** to help your student reflect on what they did and make connections to other things they have learned.

**Sentence Starters**

<table>
<thead>
<tr>
<th>I started solving the problem by...</th>
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</table>

Use the **red cards** to help your student respond to questions.

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