

Donor Blood Type	Possible Recipients
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A+	?
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O-	?
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B-	?
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AB+	?
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Exercise 2: Blood Transfusion Compatibility

Match the following **donor blood types** to the **recipients** who can safely receive them:



Exercise 3: Emergency Blood Transfusion

A hospital receives an emergency case where a patient with blood type **O-** needs a transfusion. Due to a supply shortage, the following blood types are available:

- A+
- O-
- B+
- AB-

Which of these can be safely used? Explain your reasoning.

The background of the slide features a collection of white, three-dimensional wooden blocks. Some blocks display numbers (1, 2, 3, 4, 5, 6, 7, 8, 9, 0) and one block displays a plus sign (+). The blocks are scattered and overlapping, creating a textured, playful background.

Exercise 5: Punnett Square for Rh Factor

A mother with genotype **Rh⁺/Rh⁻** and a father with **Rh⁺/Rh⁺** have a child.

1. Construct a Punnett square for the Rh factor.
2. What percentage of their children will be Rh-negative?

Homework

Challenging Question: Blood Type Mystery

A hospital mistakenly mixed up the identification tags of three newborn babies. The blood types of the babies and their parents are as follows:

- **Baby 1:** O+
- **Baby 2:** AB-
- **Baby 3:** B+

The parents' blood types are:

- **Couple A:** A+ (mother) and B- (father)
- **Couple B:** O- (mother) and O+ (father)
- **Couple C:** AB+ (mother) and A- (father)

Question:

Determine which baby belongs to which couple, explaining your reasoning using blood type inheritance rules.