

Plant and Measure!



Watching seeds sprout and grow is exciting! For this project you will plant some bean seeds and measure their growth.

Requirements:

- Collect some cotton wool, 2 lima beans and containers to grow them in (use clear plastic cups or soda bottles with the tops cut off so that you can see the roots growing). Soak your beans in water overnight to help them germinate more quickly.
- Stuff some cotton wool into your containers and place one bean seed in each container.
- Water until the cotton wool is damp but not too wet and place the containers on a windowsill or under a light source. Check them daily to see if they need more water.
- Watch for signs of growth. Begin measuring the plants and recording the growth when they first appear.
- Draw pictures, or take photographs, of the plants every 2-3 days.
 Label each picture with the measurements and parts of the plant as they develop.
- Compare the growth of the two bean plants and make comparisons. Which is taller? How much taller?

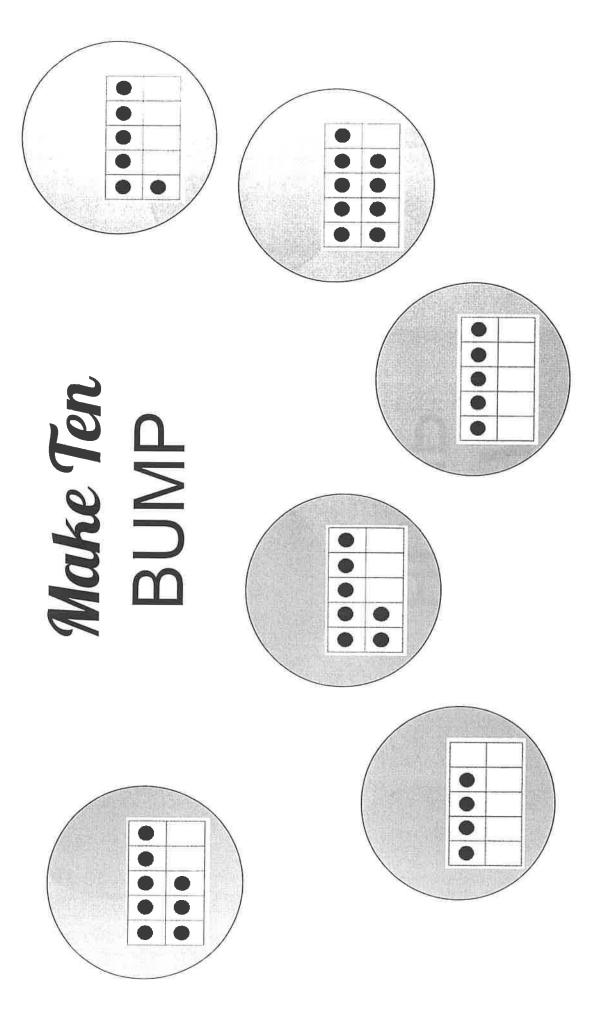
Present your	· project	in a	neat	and	creative	way!
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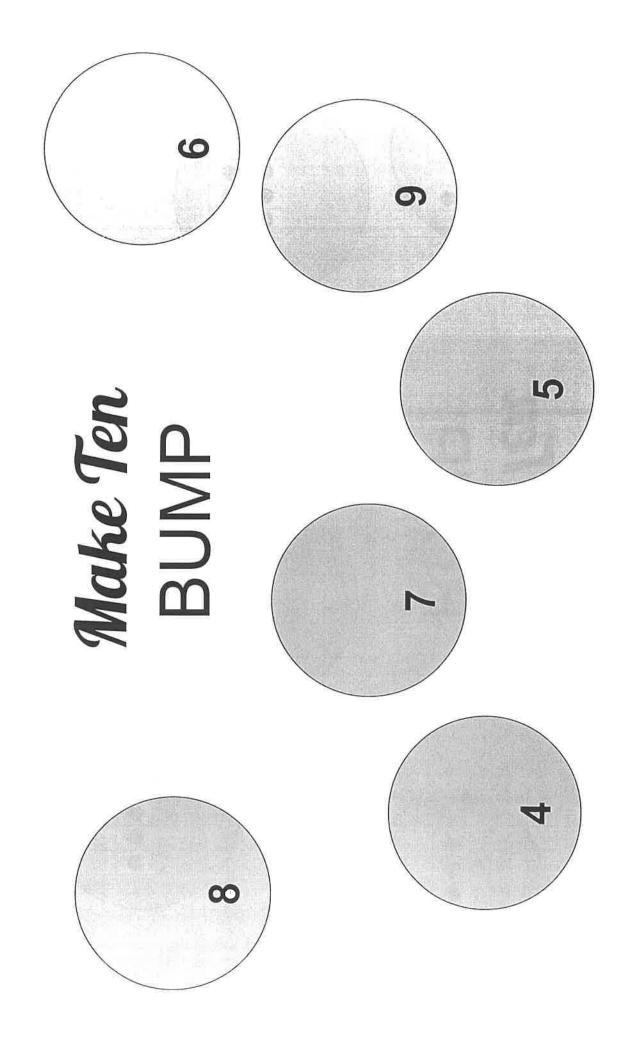
Bring your project to school to share on:	
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Bumb

Materials: Regular die (wooden cube with 0-5 written on the sides if playing Make 5), Bump Game Board, and cubes

number, they get to BUMP it off. If your own cube is already on that number, link another cube with it and it freezes that spot. Any time there are two cubes of the different color. The first child rolls 1 die and puts a cube on the spot that has the same color on a spot, that freezes that spot and you cannot bump that person's Each child takes 8 unifix cubes of one color. Their partner should have 8 of a amount needed to Make 5 (or Make 10). If the other player's cube is on that marker off. The winner is the player that uses all of their markers first.

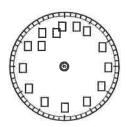




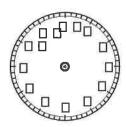
Read.

Then draw the hands to show the time.

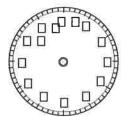
17. Janet left for Welcome Park at 8 o'clock in the morning.



18. She reached the park at **9:30** and started jogging.



19. She left the park at **10:15**.

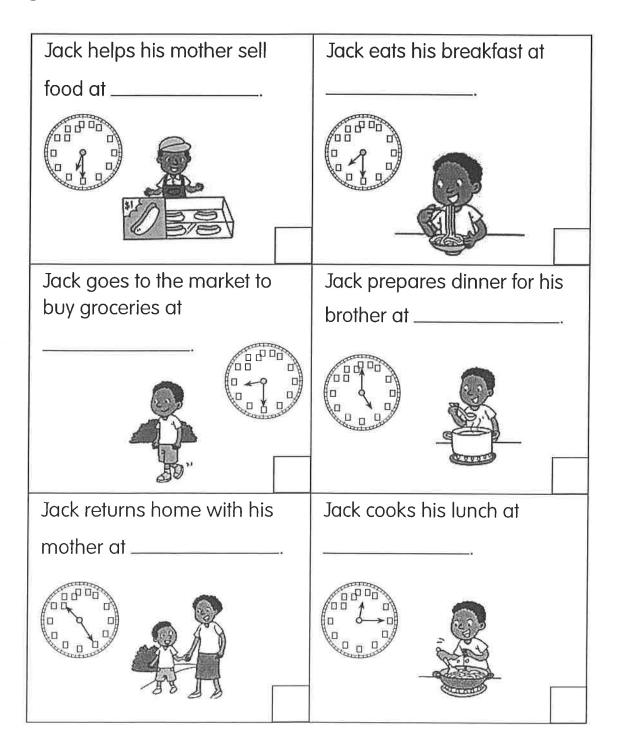


Look at the pictures.

Write the time and A.M. or P.M.

Order the events from the beginning of the day by writing 1, 2, 3, 4, 5, and 6 in the boxes.

11.

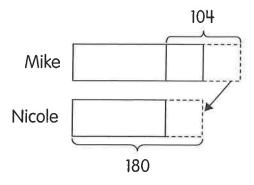


6. Mr. Lee has some packets of pasta and cheese.
He exchanges 5 packets of pasta for 35 packets of cheese.
He now has 41 packets of pasta and 89 packets of cheese.
How many packets of pasta and cheese did Mr. Lee have at first?



Mr. Lee had _____ packets of pasta and cheese at first.

7. Mike has 104 more stamps than Nicole.
He gives some stamps to Nicole.
They now have the same number of stamps.
Nicole now has 180 stamps.
How many stamps did Mike have at first?

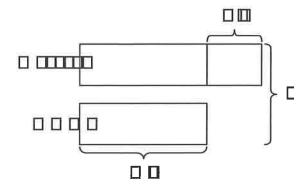


Mike had _____ stamps at first.



Correct the mistakes in the bar model. Then solve.

10. Lincoln sells 128 more raffle tickets than Jane. Jane sells 300 tickets.
How many tickets do they sell in all?



They sell _____ tickets in all.

MISSISH TO

By National Geographic staff

The Human Journey
WORKING TOGETHER:
As you read, think about
how scientists work
together to find solutions.

GETTING THERE

A LONG JOURNEY
Mars is a long way from
Earth. It's more than 140
times farther than the moon
is from Earth. The trip to
Mars would take 8 months.
A new kind of spacecraft
would be needed to send
six astronauts. Look at the
picture below. It shows what
the ship might look like.



THREE VEHICLES IN ONE

Crew vehicle would carry astronauts into space.

Habitat module would connect to the crew vehicle in space.

Mars descent vehicle would be sent ahead to Mars. Then it would carry the crew to the surface.

TIMING

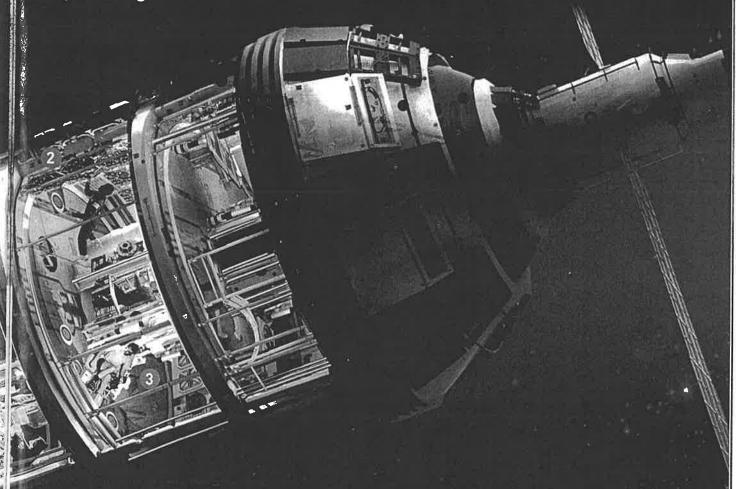
To prepare a crew and ship for Mars would take many years. Maybe you will be old enough to make the first trip!

BASIC NEEDS

The crew would need food, water, and air. But the weight of these things would make the ship too heavy. That's why the ship would have to recycle air and water. The crew could grow food in gardens hanging from the walls.

A FEW FAVORITE THINGS

The crew could only take a few personal things with them. No one could take more than 2.2 kilograms (5 pounds). Choosing what to pack might be hard!



THE HABITAT MODULE

- U LIVING SPACE: The crew would live and work here during the trip to Mars.
- ② GREEN WALLS: Crops from "green walls" would help feed the crew.
- ③ EXERCISE: The crew would exercise every day to stay healthy.

LIFE IN SPACE

Traveling in space is risky. There are many dangers.



illustration of space junk

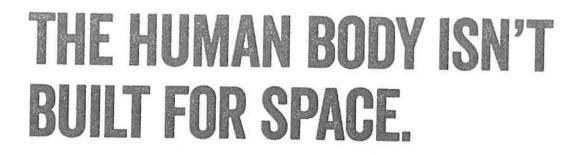
LEAVING EARTH

A rocket needs to travel fast to leave Earth. Then it must pass through a field of space trash. There are many objects circling Earth. Some are broken pieces of old rockets. Some are tools that have been left in space.

Scientists have counted more than 17,000 objects. These are all bigger than a softball. Bumping into space trash could harm the rocket.

There are other dangers, too. One is radiation. All objects radiate, or give off, heat and energy. The sun gives off a lot. This isn't good for the human body.





- MIND Being in space for a long time can make astronauts tired. It's hard for them to get enough sleep or feel rested.
- EARS In space, the crew is weightless. This can cause them to feel sick. It can also cause balance problems.
- EYES Being weightless can affect an astronaut's eyes. Some of the crew may have trouble seeing clearly.
- O DIGESTION A limited diet can affect how the crew digests food.
- (5) HEART The heart doesn't work as hard in space. That's because the astronauts are weightless.
- MUSCLES The crew needs to exercise. If not, their muscles will grow weak.
- **BONES** Bones become weak in space. They lose calcium and other minerals. Exercise can help keep bones strong.

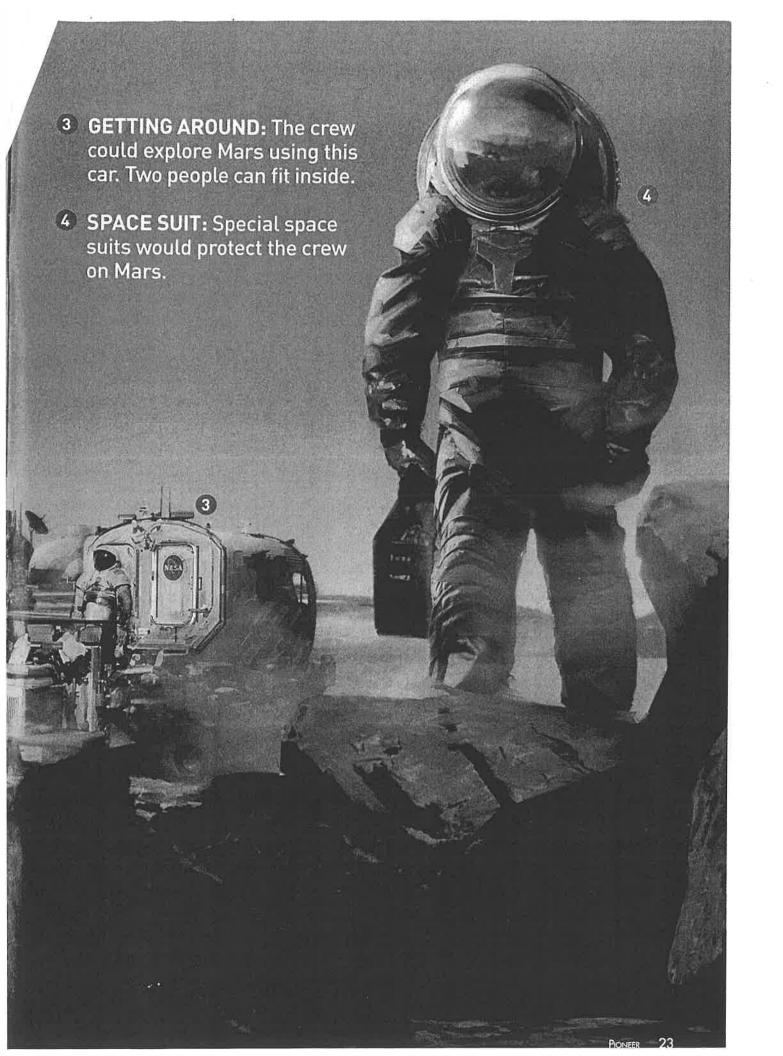
ON MARS

The crew would need to spend about 500 days on Mars. After that, they could return to Earth. While on Mars, the crew would need to set up a home base.

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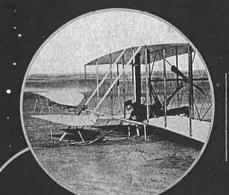
FIRST STEPS

- 1 SHORT-TERM SHELTER: The crew would live here at first. This shelter recycles all water, air, and waste.
- 2 LONG-TERM SHELTER:
 Supplies would be sent to
 Mars ahead of time. The crew
 would use them to build a
 long-term shelter.



· PACKING FOR SPACE

Astronauts can't bring too much with them into space, so they have to choose carefully. Here are a few choices they have made:



1969: A piece of fabric and wood from the Wright Flyer was taken to the surface of the Moon by the crew of Apollo 11, the first lunar landing mission.

2007: The lightsaber belonging to Star Wars' Luke Skywalker was taken on a mission to the International Space Station.

2010: Shannon Walker carried aviator Amelia Earhart's watch. Earhart wore it in 1932 when crossing the Atlantic Ocean by herself.

2012: Japan's Satoshi Furukawa brought Legos.

·What would you bring?

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Cover: a common octopus

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