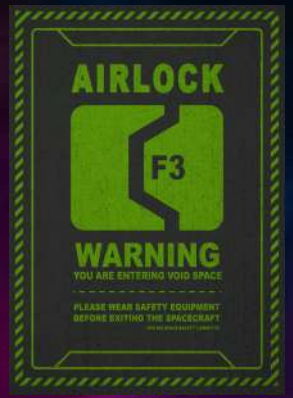
1.3 Evidence for Big Bang Part 3

Warning!

- When the slides say turn and talk, do this.
- When the slides say check with a teacher, do that!
- Moving ahead without understanding what you are learning will cause a lot of confusion.



Work with at least 1 other person. Get team points 2

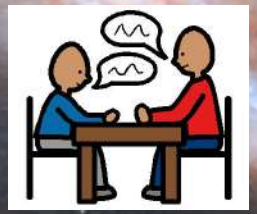
Symbols For This lesson

DO NOT need to write

SOMETHING to write in notebook

Read

Talk to a neighbor at your table, yes really do this!



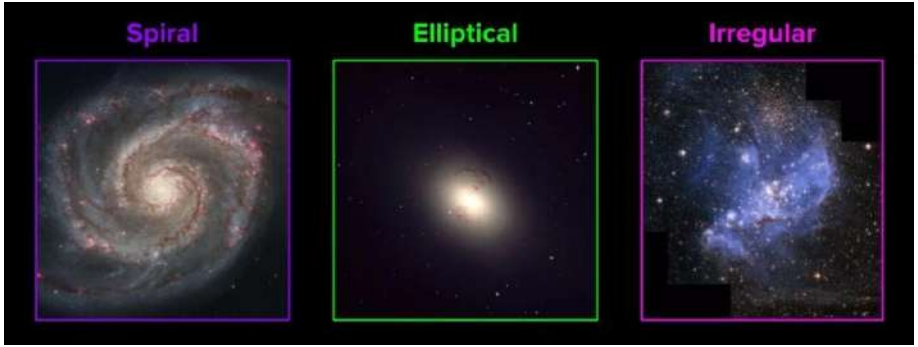
Talk to the teacher!

Model #3 The Big Bang Directions

- You will be making a PHYSICAL model of the universe using a balloon.
- Get a black balloon and a silver sharpie from the teacher

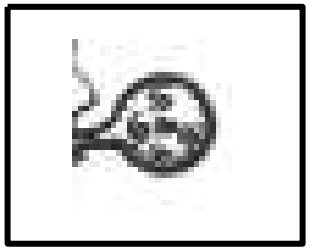
Create Your Model

1. Pick one person to blow up your balloon or get a pump from the teacher.
2. Blow just enough air into the balloon to get it started, right before it gets harder to blow up.
3. Twist the end of the ballon BUT DO NOT TIE the balloon
4. With your sharpie model the galaxies of the universe by drawing them on the balloon.



Draw spots on a balloon to represent galaxies in the universe.

Model #3 The Big Bang



4.3 Evidence for Big-Bang part 2

Model #2 Red Shift/Blue Shift
The Experiment

Model #3 The Big Bang

p. 33

Draw a picture of your balloon before you blow it up with a little bit of air in it.

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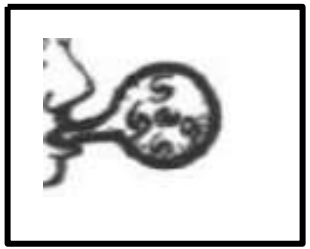
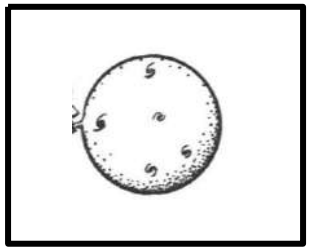
Model #3 The Big Bang





1. Blow your balloon up ½ way
2. Twist the end of the balloon DO NOT tie a knot.
3. Draw your balloon ½ way blown up.

4.3 Evidence for Big-Bang part 2

Model #2 Red Shift/Blue Shift
The Experiment

Model #3 The Big Bang

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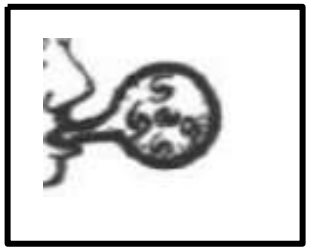
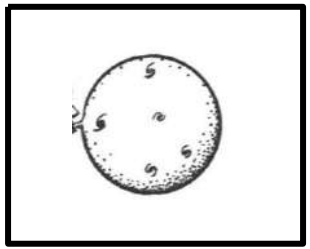
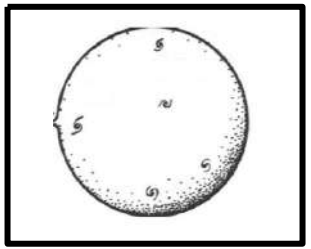
Model #3 The Big Bang


1. Blow your balloon up all the way but not too large it will pop
2. Twist the end of the balloon DO NOT tie a knot.
3. Draw your balloon all the way up.

4.3 Evidence for Big-Bang part 2

Model #2 Red Shift/Blue Shift
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Model #3 The Big Bang

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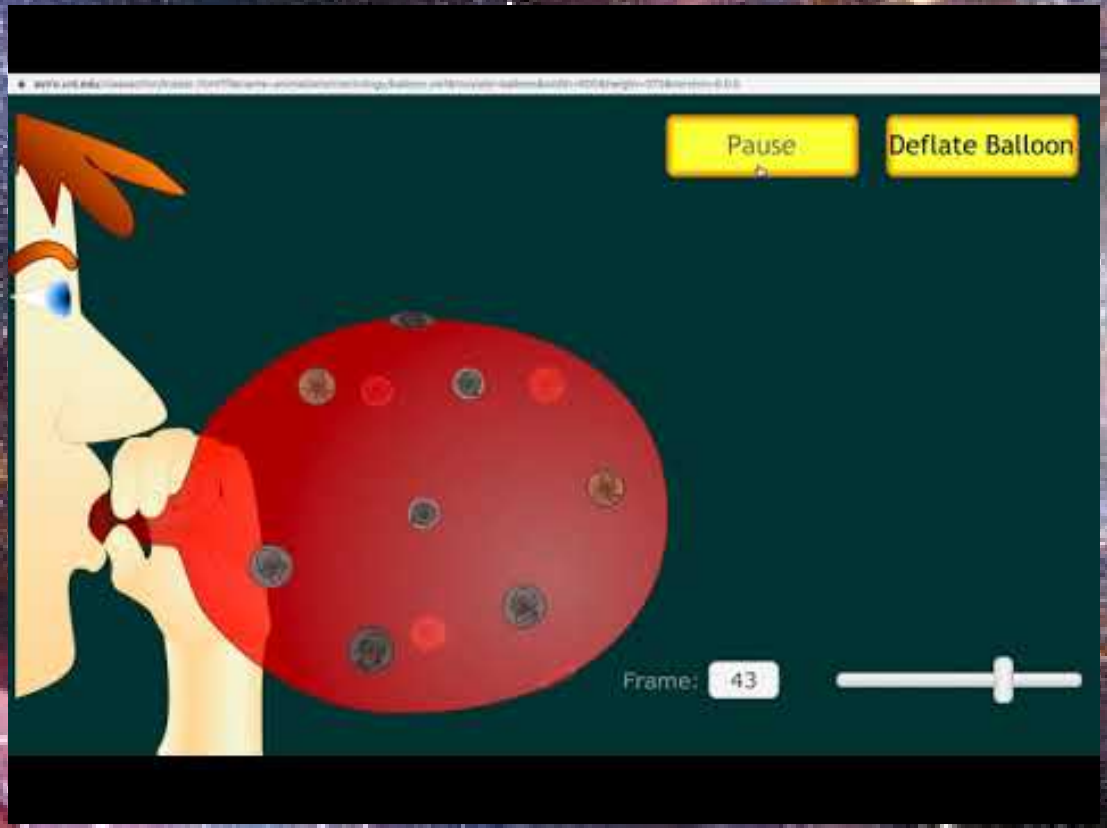
Balloon and Big Bang Animation



Model #3 the Big Bang Strengths and Limitations

Big Bang: The theory that the whole universe started in a hot, dense state and has expanded ever sense.

Strengths:Based on what you know so far about the big bang and the behavior of the universe what is one of the strengths of this model?

Limitations: Based on what you know so far about the big bang and the behavior of the universe what is one of the limitations of this model?


theBIG
BANG
THEORY

FINAL CONCLUSIONS

Are you behind? Then stop here, you can skip the rest of the slides and move on to the exit ticket

Are you on or ahead of pace? Check out the next 2 slides for some very interesting information and answers to many questions students have at this point in the unit.


TEDEd
HOW WILL THE UNIVERSE END?

Modeling the End

What can you do with your balloon model to demonstrate how the universe will end?