Name _____

Scientific Investigation Worksheet: What dissolves?

(you can learn about something by watching it behave….)

Step 1 – Question – What do you want to know . . . .

_____

_____

Step 2 – Prediction – What I think will happen . . .

If flour, baking soda, sugar and salt have similar properties (characteristics)
refer to variable you will change

then I predict _____they all will dissolve in water.
refer to variable you will measure

Variable I will change _____substance_____ _____

Variable I will measure __whether it dissolves or not_____

Variables I will keep the same

- _____size cups, amount water, amount substance, amount stirring, time of stirring, temperature of water, _____

Step 3 – Materials – What I will use . . .

- _____cups_____
- _____spoons_____
- _____flour, salt, sugar, baking soda_____
- _____timer_____
- _____

Step 4 – Procedure – The steps I will take . . .

1. _fill 4 cups with equal amounts of water_(fill at least ¾ full)_
2. _add one level spoonful of sugar and salt to 2 cups _____
3. __stir for a minute (each student stirs one cup)_____
4. __observe if they dissolved, record results_____
5. repeat with baking soda and flour _____

Step 5 – Data collection (my observations during the experiment):

	Dissolves in water	Does not dissolve	Lots of bubbles produced?
sugar			
salt			
flour			
baking soda			

Overall Results - What was observed using multiple trials from the class? Were the overall results consistent with your results?
Which substances dissolve in water: _____
Which substances do not dissolve in water: _____

Step 6 – Conclusion
My prediction _____
(state prediction)
was _____
(Supported or not supported by the data)

Concluding statement: _____

_____

_____
(include specific evidence in conslusion: Convince me!)

Future work: What are some other substances you'd like to test? Can you think of other substances that you predict would dissolve in water? Some that wouldn't dissolve? What do you think would happen if the water temperature were hot?