

Modified Checklist for Autism in Toddlers, Revised, with Follow-Up

(M-CHAT-R/F)TM

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Acknowledgement: We thank the M-CHAT Study Group in Spain for developing the flow chart format used in this document.

For more information, please see www.mchatscreen.com
or contact Diana Robins at DianaLRobins@gmail.com

Permissions for Use of the M-CHAT-R/F™

The Modified Checklist for Autism in Toddlers, Revised with Follow-Up (M-CHAT-R/F; Robins, Fein, & Barton, 2009) is a 2-stage parent-report screening tool to assess risk for Autism Spectrum Disorder (ASD). The M-CHAT-R/F is available for free download for clinical, research, and educational purposes. Download of the M-CHAT-R/F and related material is authorized from www.mchatscreen.com.

The M-CHAT-R/F is a copyrighted instrument, and use of the M-CHAT-R/F must follow these guidelines:

- (1) Reprints/reproductions of the M-CHAT-R must include the copyright at the bottom (© 2009 Robins, Fein, & Barton). No modifications can be made to items, instructions, or item order without permission from the authors.
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Instructions for Use

The M-CHAT-R can be administered and scored as part of a well-child care visit, and also can be used by specialists or other professionals to assess risk for ASD. The primary goal of the M-CHAT-R is to maximize sensitivity, meaning to detect as many cases of ASD as possible. Therefore, there is a high false positive rate, meaning that not all children who score at risk will be diagnosed with ASD. To address this, we have developed the Follow-Up questions (M-CHAT-R/F). Users should be aware that even with the Follow-Up, a significant number of the children who screen positive on the M-CHAT-R will not be diagnosed with ASD; however, these children are at high risk for other developmental disorders or delays, and therefore, evaluation is warranted for any child who screens positive. The M-CHAT-R can be scored in less than two minutes. Scoring instructions can be downloaded from <http://www.mchatscreen.com>. Associated documents will be available for download as well.

Scoring Algorithm

For all items except 2, 5, and 12, the response "NO" indicates ASD risk; for items 2, 5, and 12, "YES" indicates ASD risk. The following algorithm maximizes psychometric properties of the M-CHAT-R:

- LOW-RISK:** **Total Score is 0-2;** if child is younger than 24 months, screen again after second birthday. No further action required unless surveillance indicates risk for ASD.
- MEDIUM-RISK:** **Total Score is 3-7;** Administer the Follow-Up (second stage of M-CHAT-R/F) to get additional information about at-risk responses. If M-CHAT-R/F score remains at 2 or higher, the child has screened positive. Action required: refer child for diagnostic evaluation and eligibility evaluation for early intervention. If score on Follow-Up is 0-1, child has screened negative. No further action required unless surveillance indicates risk for ASD. Child should be rescreened at future well-child visits.
- HIGH-RISK:** **Total Score is 8-20;** It is acceptable to bypass the Follow-Up and refer immediately for diagnostic evaluation and eligibility evaluation for early intervention.

M-CHAT-R™

Please answer these questions about your child. Keep in mind how your child usually behaves. If you have seen your child do the behavior a few times, but he or she does not usually do it, then please answer **no**. Please circle **yes** or **no** for every question. Thank you very much.

- | | | |
|--|-----|----|
| 1. If you point at something across the room, does your child look at it?
(FOR EXAMPLE , if you point at a toy or an animal, does your child look at the toy or animal?) | Yes | No |
| 2. Have you ever wondered if your child might be deaf? | Yes | No |
| 3. Does your child play pretend or make-believe? (FOR EXAMPLE , pretend to drink from an empty cup, pretend to talk on a phone, or pretend to feed a doll or stuffed animal?) | Yes | No |
| 4. Does your child like climbing on things? (FOR EXAMPLE , furniture, playground equipment, or stairs) | Yes | No |
| 5. Does your child make <u>unusual</u> finger movements near his or her eyes?
(FOR EXAMPLE , does your child wiggle his or her fingers close to his or her eyes?) | Yes | No |
| 6. Does your child point with one finger to ask for something or to get help?
(FOR EXAMPLE , pointing to a snack or toy that is out of reach) | Yes | No |
| 7. Does your child point with one finger to show you something interesting?
(FOR EXAMPLE , pointing to an airplane in the sky or a big truck in the road) | Yes | No |
| 8. Is your child interested in other children? (FOR EXAMPLE , does your child watch other children, smile at them, or go to them?) | Yes | No |
| 9. Does your child show you things by bringing them to you or holding them up for you to see – not to get help, but just to share? (FOR EXAMPLE , showing you a flower, a stuffed animal, or a toy truck) | Yes | No |
| 10. Does your child respond when you call his or her name? (FOR EXAMPLE , does he or she look up, talk or babble, or stop what he or she is doing when you call his or her name?) | Yes | No |
| 11. When you smile at your child, does he or she smile back at you? | Yes | No |
| 12. Does your child get upset by everyday noises? (FOR EXAMPLE , does your child scream or cry to noise such as a vacuum cleaner or loud music?) | Yes | No |
| 13. Does your child walk? | Yes | No |
| 14. Does your child look you in the eye when you are talking to him or her, playing with him or her, or dressing him or her? | Yes | No |
| 15. Does your child try to copy what you do? (FOR EXAMPLE , wave bye-bye, clap, or make a funny noise when you do) | Yes | No |
| 16. If you turn your head to look at something, does your child look around to see what you are looking at? | Yes | No |
| 17. Does your child try to get you to watch him or her? (FOR EXAMPLE , does your child look at you for praise, or say “look” or “watch me”?) | Yes | No |
| 18. Does your child understand when you tell him or her to do something?
(FOR EXAMPLE , if you don’t point, can your child understand “put the book on the chair” or “bring me the blanket”?) | Yes | No |
| 19. If something new happens, does your child look at your face to see how you feel about it?
(FOR EXAMPLE , if he or she hears a strange or funny noise, or sees a new toy, will he or she look at your face?) | Yes | No |
| 20. Does your child like movement activities?
(FOR EXAMPLE , being swung or bounced on your knee) | Yes | No |

M-CHAT-R Follow-Up (M-CHAT-R/F)TM

Permissions for Use

The Modified Checklist for Autism in Toddlers, Revised, with Follow-Up (M-CHAT-R/F; Robins, Fein, & Barton, 2009) is designed to accompany the M-CHAT-R. The M-CHAT-R/F may be downloaded from www.mchatscreen.com.

The M-CHAT-R/F is a copyrighted instrument, and use of this instrument is limited by the authors and copyright holders. The M-CHAT-R and M-CHAT-R/F may be used for clinical, research, and educational purposes. Although we are making the tool available free of charge for these uses, this is copyrighted material and it is not open source. Anyone interested in using the M-CHAT-R/F in any commercial or electronic products must contact Diana L. Robins at DianaLRobins@gmail.com to request permission.

Instructions for Use

The M-CHAT-R/F is designed to be used with the M-CHAT-R; the M-CHAT-R is valid for screening toddlers between 16 and 30 months of age, to assess risk for autism spectrum disorder (ASD). Users should be aware that even with the Follow-Up, a significant number of the children who fail the M-CHAT-R will not be diagnosed with ASD; however, these children are at risk for other developmental disorders or delays, and therefore, follow-up is warranted for any child who screens positive.

Once a parent has completed the M-CHAT-R, score the instrument according to the instructions. If the child screens positive, select the Follow-Up items based on which items the child failed on the M-CHAT-R; only those items that were originally failed need to be administered for a complete interview.

Each page of the interview corresponds to one item from the M-CHAT-R. Follow the flowchart format, asking questions until a PASS or FAIL is scored. Please note that parents may report “maybe” in response to questions during the interview. When a parent reports “maybe,” ask whether most often the answer is “yes” or “no” and continue the interview according to that response. In places where there is room to report an “other” response, the interviewer must use his/her judgment to determine whether it is a passing response or not.

Score the responses to each item on the M-CHAT-R/F Scoring Sheet (which contains the same items as the M-CHAT-R, but Yes/No has been replaced by Pass/Fail). The interview is considered to be a screen positive if the child fails any two items on the Follow-Up. If a child screens positive on the M-CHAT-R/F, it is strongly recommended that the child is referred for early intervention and diagnostic testing as soon as possible. Please note that if the healthcare provider or parent has concerns about ASDs, children should be referred for evaluation regardless of the score on the M-CHAT-R or M-CHAT-R/F.

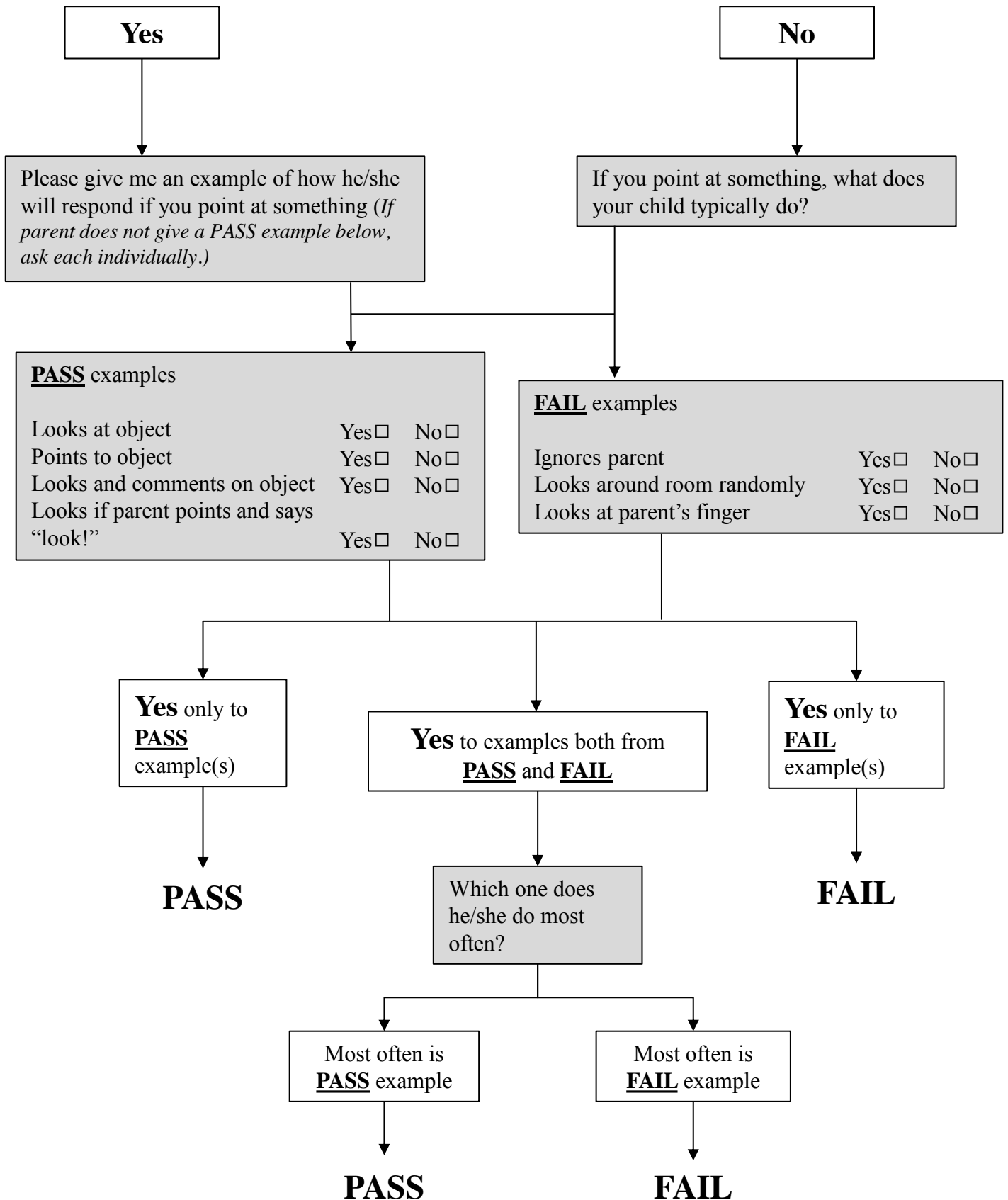
M-CHAT-R Follow-Up™ Scoring Sheet

Please note: Yes/No has been replaced with Pass/Fail

1. If you point at something across the room, does your child look at it? (FOR EXAMPLE , if you point at a toy or an animal, does your child look at the toy or animal?)	Pass	Fail
2. Have you ever wondered if your child might be deaf?	Pass	Fail
3. Does your child play pretend or make-believe? (FOR EXAMPLE , pretend to drink from an empty cup, pretend to talk on a phone, or pretend to feed a doll or stuffed animal)	Pass	Fail
4. Does your child like climbing on things? (FOR EXAMPLE , furniture, playground equipment, or stairs)	Pass	Fail
5. Does your child make <u>unusual</u> finger movements near his or her eyes? (FOR EXAMPLE , does your child wiggle his or her fingers close to his or her eyes?)	Pass	Fail
6. Does your child point with one finger to ask for something or to get help? (FOR EXAMPLE , pointing to a snack or toy that is out of reach)	Pass	Fail
7. Does your child point with one finger to show you something interesting? (FOR EXAMPLE , pointing to an airplane in the sky or a big truck in the road)	Pass	Fail
8. Is your child interested in other children? (FOR EXAMPLE , does your child watch other children, smile at them, or go to them?)	Pass	Fail
9. Does your child show you things by bringing them to you or holding them up for you to see – not to get help, but just to share? (FOR EXAMPLE , showing you a flower, a stuffed animal, or a toy truck)	Pass	Fail
10. Does your child respond when you call his or her name? (FOR EXAMPLE , does he or she look up, talk or babble, or stop what he or she is doing when you call his or her name?)	Pass	Fail
11. When you smile at your child, does he or she smile back at you?	Pass	Fail
12. Does your child get upset by everyday noises? (FOR EXAMPLE , a vacuum cleaner or loud music)	Pass	Fail
13. Does your child walk?	Pass	Fail
14. Does your child look you in the eye when you are talking to him or her, playing with him or her, or dressing him or her?	Pass	Fail
15. Does your child try to copy what you do? (FOR EXAMPLE , wave bye-bye, clap, or make a funny noise when you do)	Pass	Fail
16. If you turn your head to look at something, does your child look around to see what you are looking at?	Pass	Fail
17. Does your child try to get you to watch him or her? (FOR EXAMPLE , does your child look at you for praise, or say “look” or “watch me”)	Pass	Fail
18. Does your child understand when you tell him or her to do something? (FOR EXAMPLE , if you don’t point, can your child understand “put the book on the chair” or “bring me the blanket”)	Pass	Fail
19. If something new happens, does your child look at your face to see how you feel about it? (FOR EXAMPLE , if he or she hears a strange or funny noise, or sees a new toy, will he or she look at your face?)	Pass	Fail
20. Does your child like movement activities? (FOR EXAMPLE , being swung or bounced on your knee)	Pass	Fail

Total Score: _____

1. If you point at something across the room, does _____ look at it?



2. You reported that you have wondered if your child is deaf. What led you to wonder that?

```
graph TD; A["Does he/she...  
Often ignore sounds? Yes ☐ No ☐  
Often ignore people? Yes ☐ No ☐"] --> B["No to both"]; A --> C["Yes to either"]; B --> D["PASS"]; C --> E["FAIL"]; D --> F["Has your child's hearing been tested?"]; E --> F; F --> G["Yes"]; F --> H["No"]; G --> I["What were the results of the hearing test? (choose one):  
☐ Hearing in normal range  
☐ Hearing below normal  
☐ Results inconclusive or not definitive"]; H --> J["ALSO ASK FOR ALL CHILDREN:"]; style J fill:none,stroke:none
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Does he/she...

Often ignore sounds? Yes ☐ No ☐

Often ignore people? Yes ☐ No ☐

No to both

Yes to either

PASS

FAIL

ALSO ASK FOR ALL CHILDREN:

Has your child's hearing been tested?

Yes

No

What were the results of the hearing test? (*choose one*):

- ☐ Hearing in normal range
- ☐ Hearing below normal
- ☐ Results inconclusive or not definitive

3. Does _____ play pretend or make - believe?

Yes

No

Please give me an example of his/her pretend play. *(If parent does not give a PASS example below, ask each individually.)*

Does he/she usually...

Pretend to drink from a **toy** cup?

Yes ☐ No ☐

Pretend to eat from a **toy** spoon or fork?

Yes ☐ No ☐

Pretend to talk on the telephone?

Yes ☐ No ☐

Pretend to feed a doll or stuffed animal with real or imaginary food?

Yes ☐ No ☐

Push a car as if it is going along a pretend road?

Yes ☐ No ☐

Pretend to be a robot, an airplane, a ballerina, or any other favorite character?

Yes ☐ No ☐

Put a toy pot on a pretend stove?

Yes ☐ No ☐

Stir imaginary food?

Yes ☐ No ☐

Put an action figure or doll into a car or truck as if it is the driver or passenger?

Yes ☐ No ☐

Pretend to vacuum the rug, sweep the floor, or the mow lawn?

Yes ☐ No ☐

Other (describe):

Yes ☐ No ☐

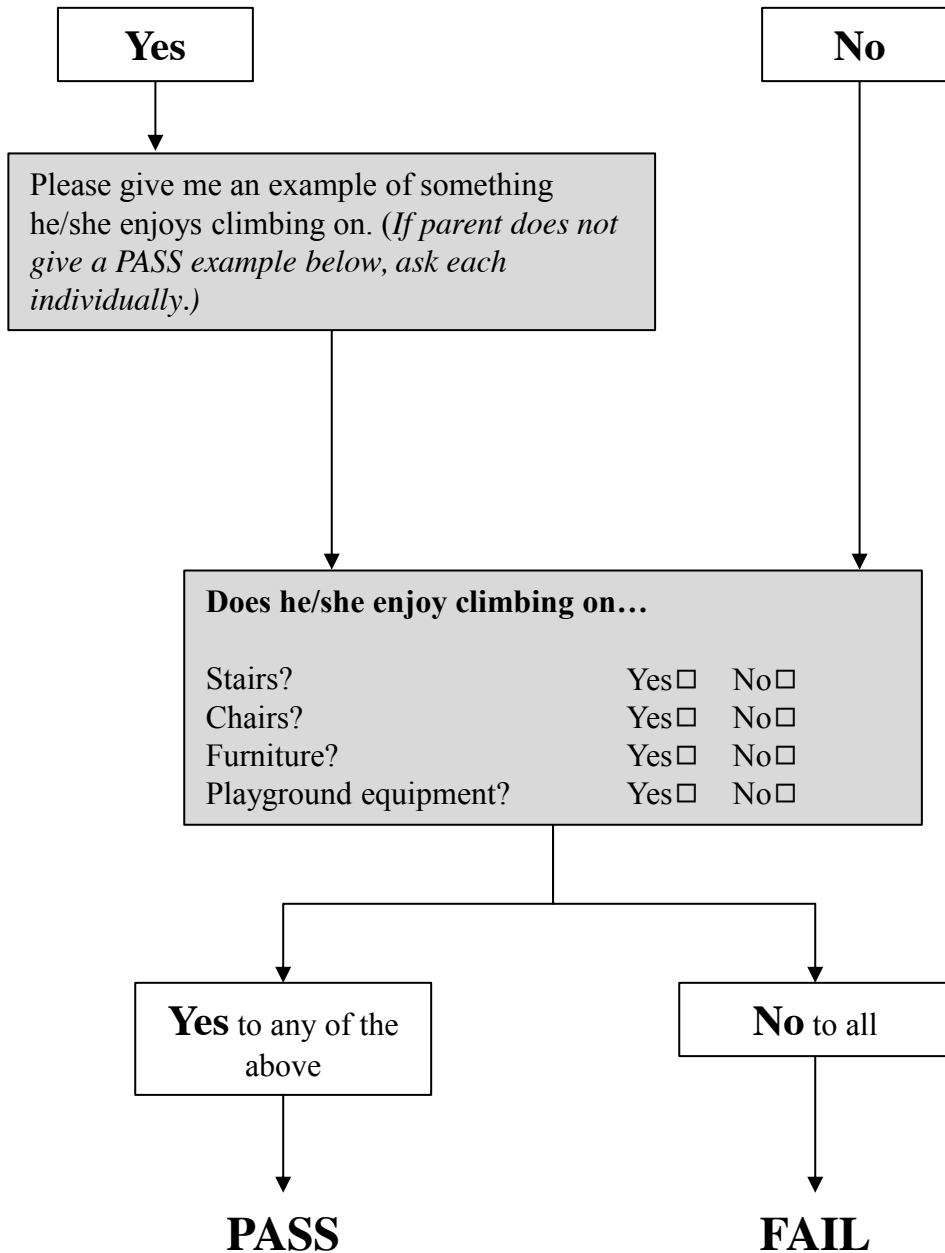
Yes to any

No to all

PASS

FAIL

4. Does _____ like climbing on things?



5. Does _____ make unusual finger movements near his/her eyes?

Yes

Please describe these movements (*If parent does not give a PASS example below, ask each individually.*)

Does he/she usually...
(Below are PASS examples)

Look at hands? Yes ☐ No ☐

Move fingers when
playing peek-a-boo? Yes ☐ No ☐

Yes to any of
the above

PASS

No to all of the above

No

PASS

Does he/she usually...
(Below are FAIL examples)

Wiggle his/her fingers near his/her eyes? Yes ☐ No ☐

Hold his/her hands up close to his/her eyes? Yes ☐ No ☐

Hold his/her hands off to the side of
his/her eyes? Yes ☐ No ☐

Flap his/her hands near his/her face? Yes ☐ No ☐

Other (describe): Yes ☐ No ☐

Yes to any of the above

Does this happen more than
twice a week?

No

Yes

FAIL

6. Does _____ point with one finger to ask for something or to get help?

Yes

PASS

No

If there is something your child wants that is out of reach, such as a snack or toy that is out of reach, how does he/she get it? *(If parent does not give a PASS example below, ask each individually.)*

Does he/she...

Reach for the object with his/her whole hand?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Lead you to the object?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Try to get the object for him/herself?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Ask for it using words or sounds?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Yes to any of the above

No to all of the above

If you said "Show me",
would he/she point at it?

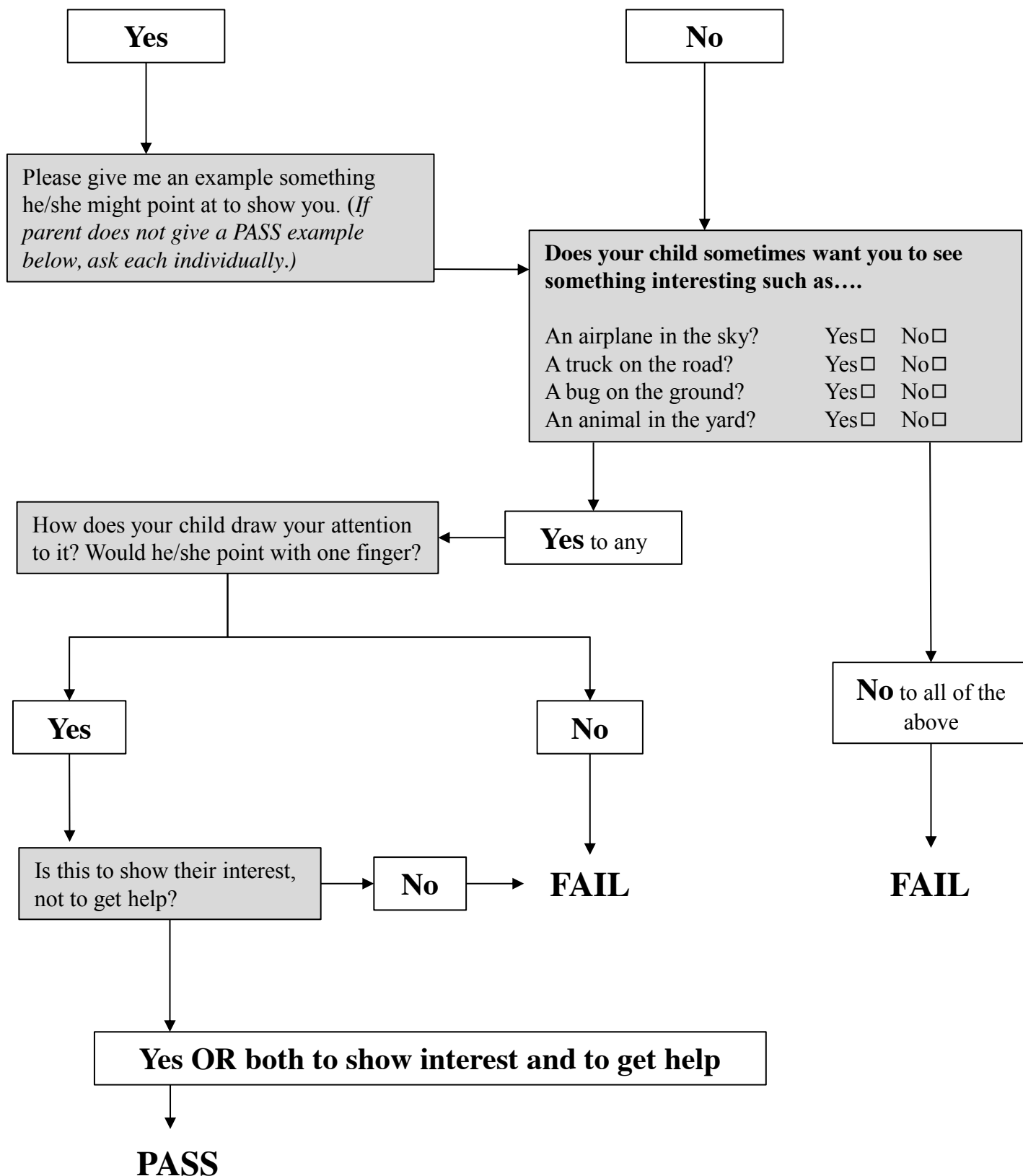
Yes

No

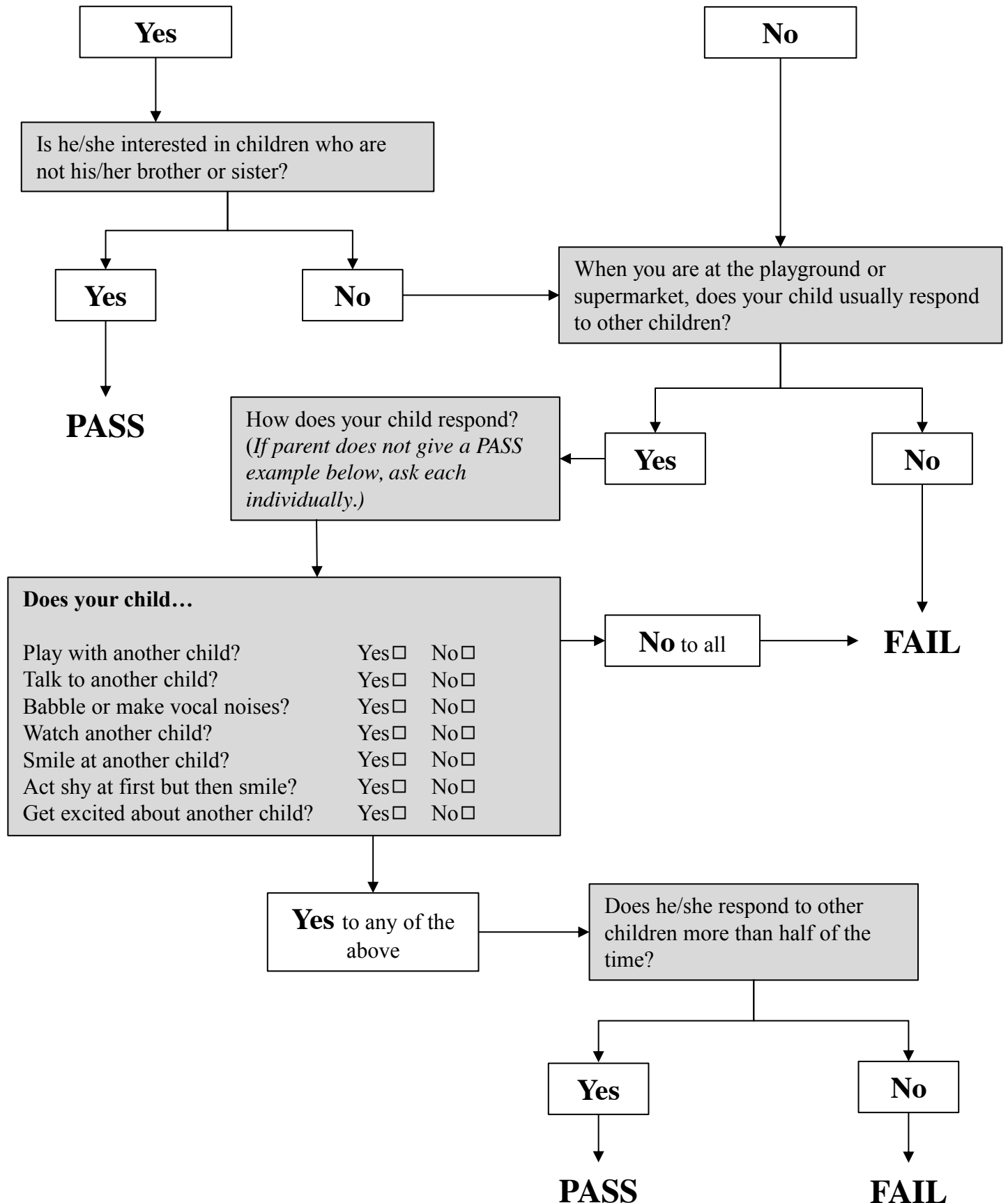
FAIL

PASS

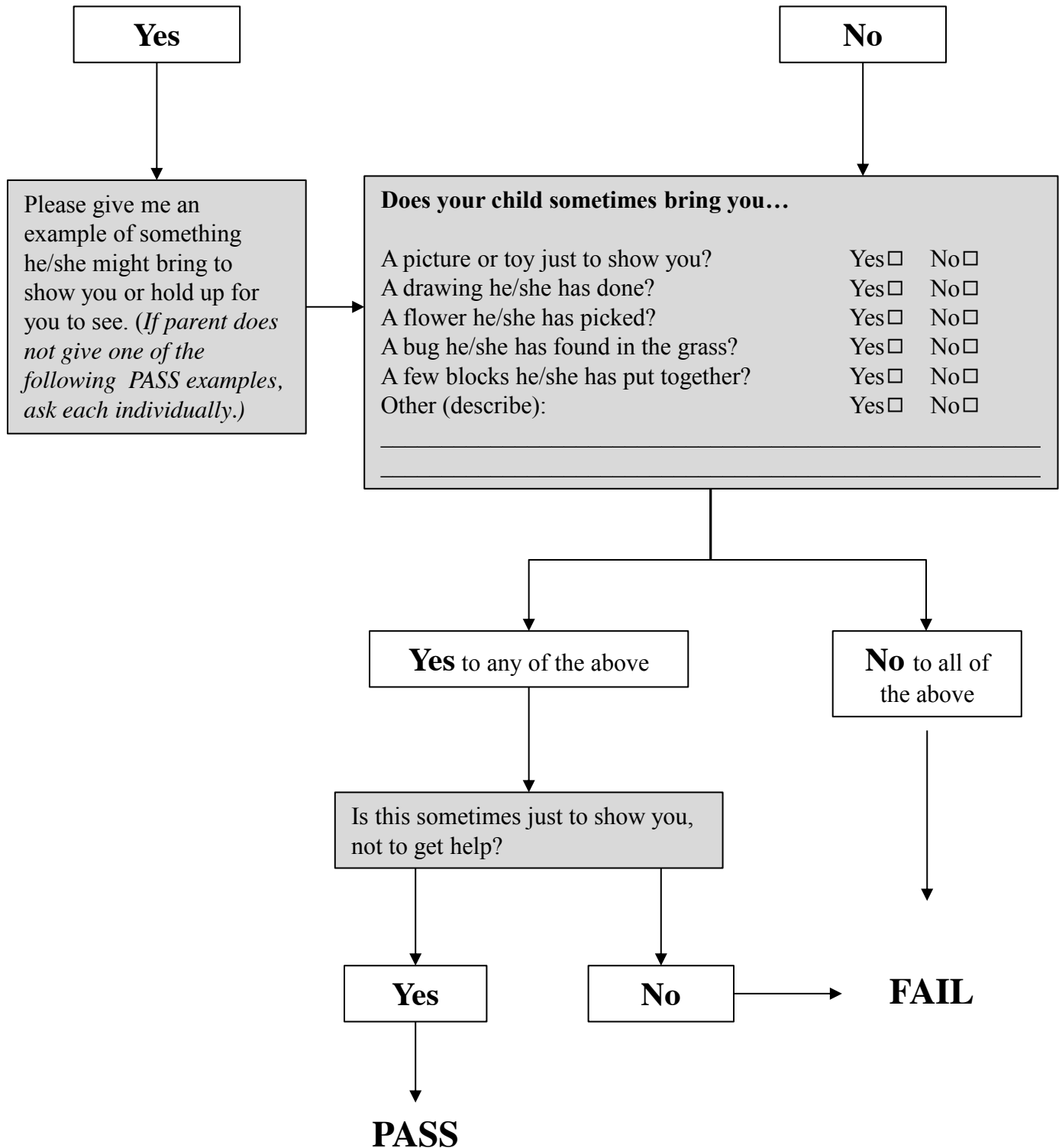
7. * If the interviewer just asked #6, begin here: We just talked about pointing to *ask* for something, ASK ALL → Does _____ point with one finger just to show you something interesting?



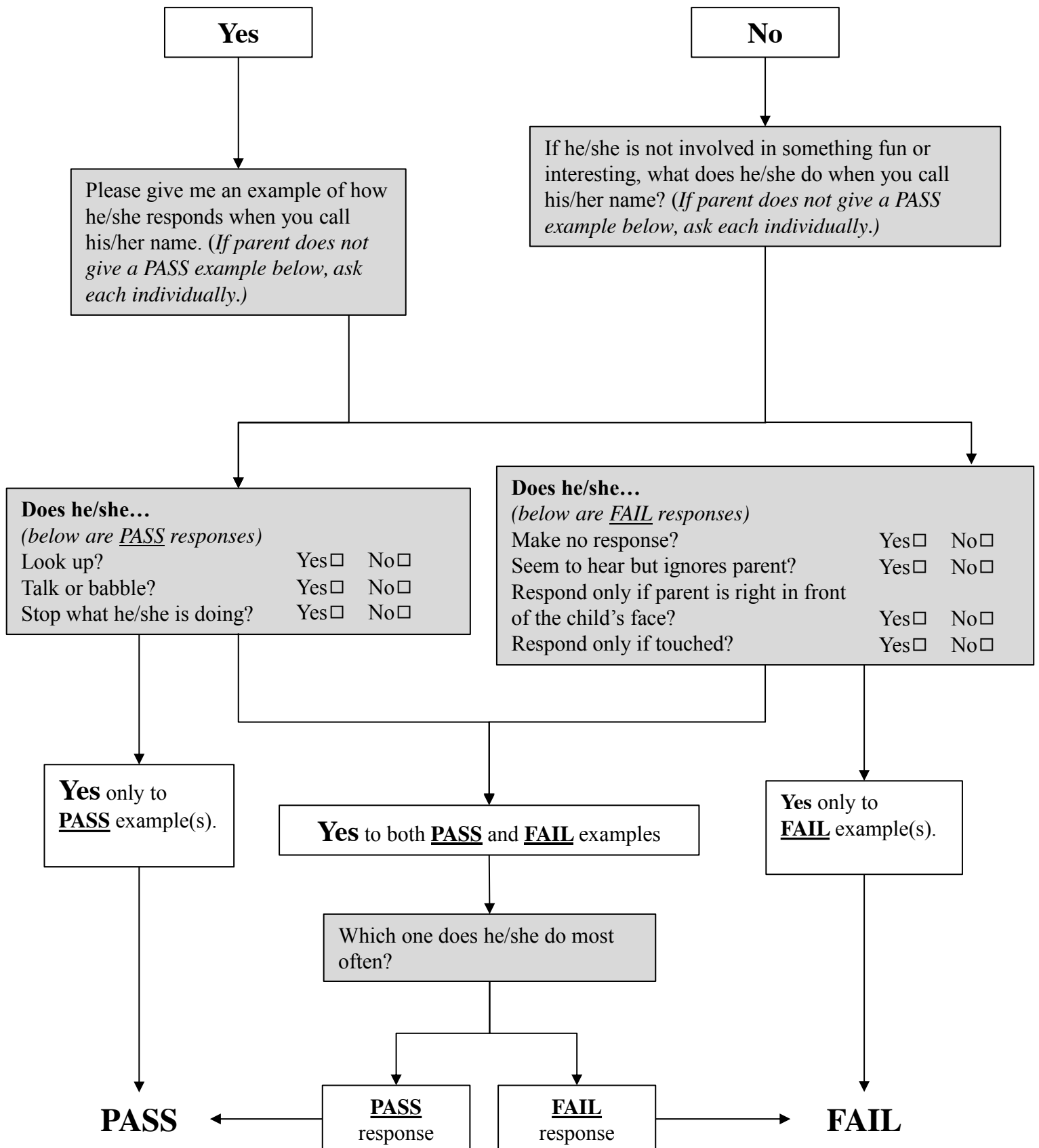
8. Is _____ interested in other children?



9. Does _____ show you things by bringing them to you or holding them up for you to see? Not just to get help, but to share?



10. Does _____ respond when you call his/her name?



11. When you smile at _____, does he/she smile back at you?

Yes

PASS

No

What makes _____ smile? (If parent does not give a PASS example below, ask each individually.)

Does your child...
(Below are PASS examples)

Smile when you smile? Yes ☐ No ☐
Smile when you enter the room? Yes ☐ No ☐
Smile when you return from being away? Yes ☐ No ☐

Does he/she ...
(Below are FAIL examples)

Always smile? Yes ☐ No ☐
Smile at a favorite toy or activity? Yes ☐ No ☐
Smile randomly or at nothing in particular? Yes ☐ No ☐

Yes only to
PASS example(s)

PASS

Yes to both PASS and FAIL examples

Which one does he/she do most often?

PASS
response

FAIL
response

Yes only to
FAIL example(s)

FAIL

12. Does _____ get upset by everyday noises?

Yes

No

Does your child have a negative reaction to the sound of...

A washing machine?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Babies crying?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Vacuum cleaner?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Hairdryer?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Traffic?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Babies squealing or screeching?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Loud music?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Telephone/ doorbell ringing?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Noisy places such as a supermarket or restaurant?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Other (describe):	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Yes to one
or none

PASS

Yes to two or more

How does your child react to those noises? (*If parent does not give a PASS example below, ask each individually.*)

Does your child...
(Below are PASS responses)

Calmly cover his/her ears?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Tell you that he/she does not like the noise?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Does your child...
(Below are FAIL responses)

Scream?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Cry?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Cover his/her ears while upset?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Yes only to
PASS example(s)

Yes to both PASS and FAIL

Yes only to
FAIL example(s)

Which one does he/she do most often?

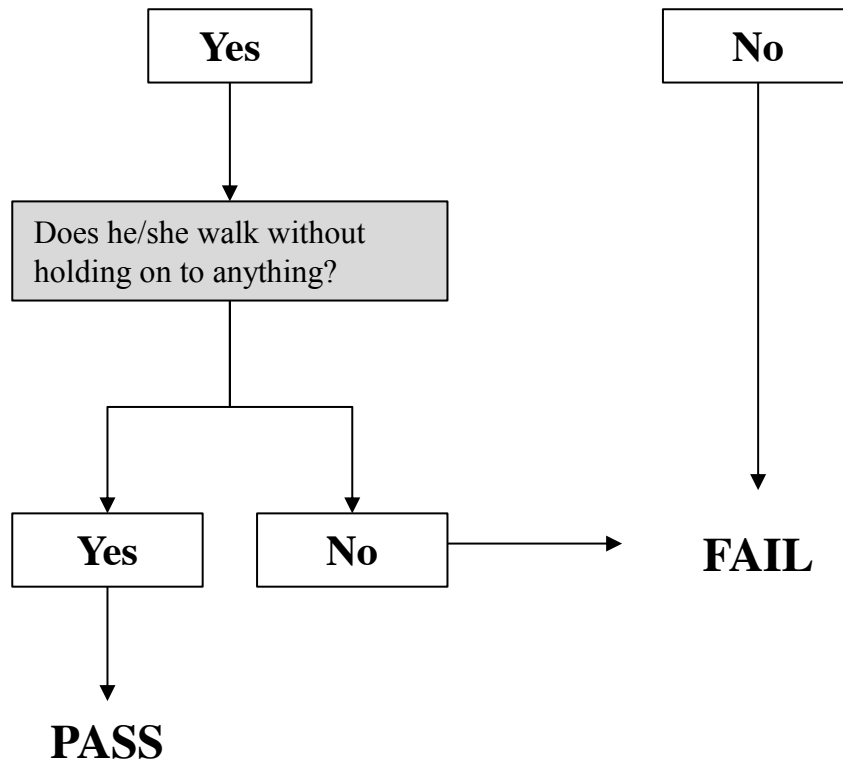
PASS

PASS
response

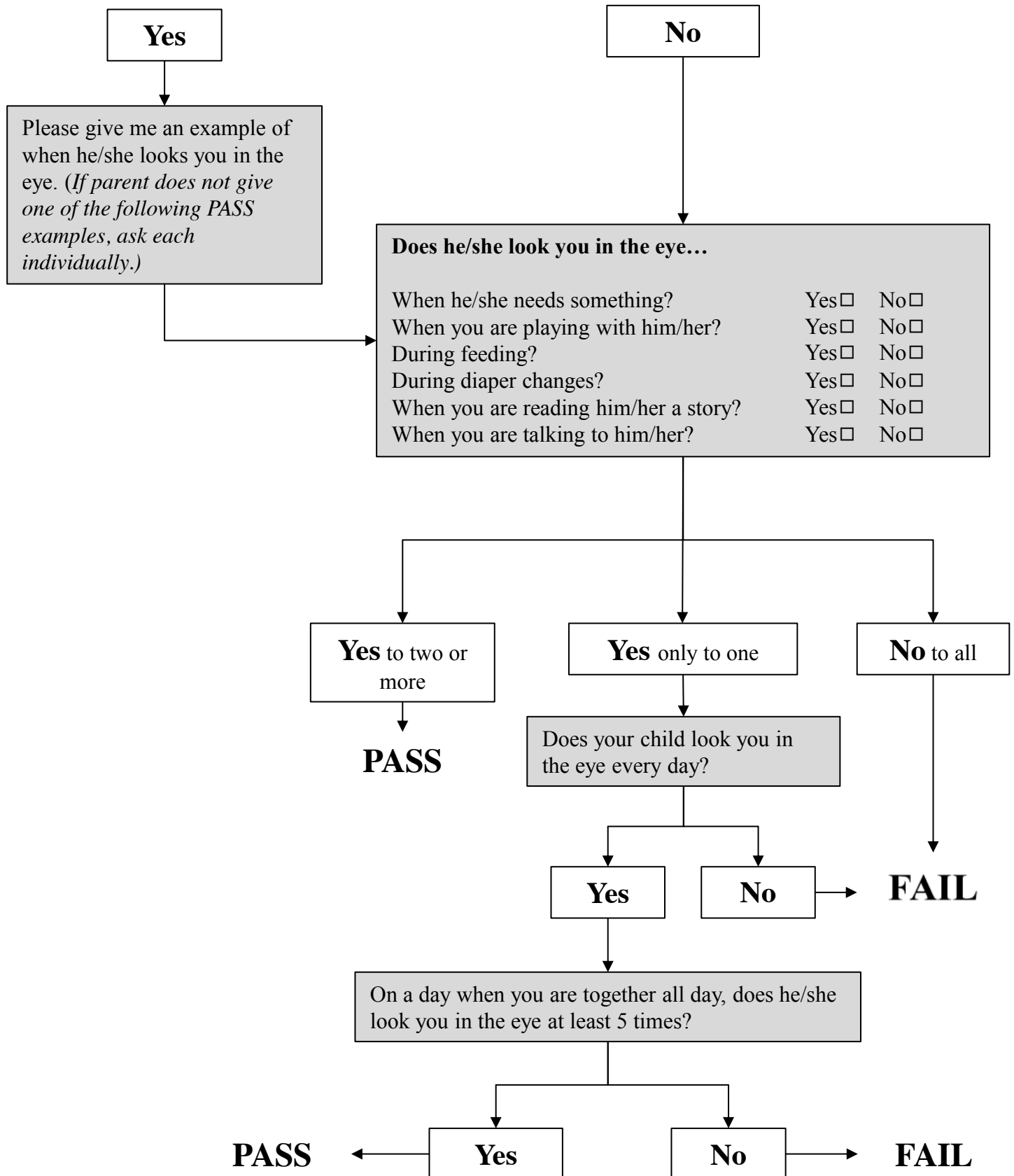
FAIL
response

FAIL

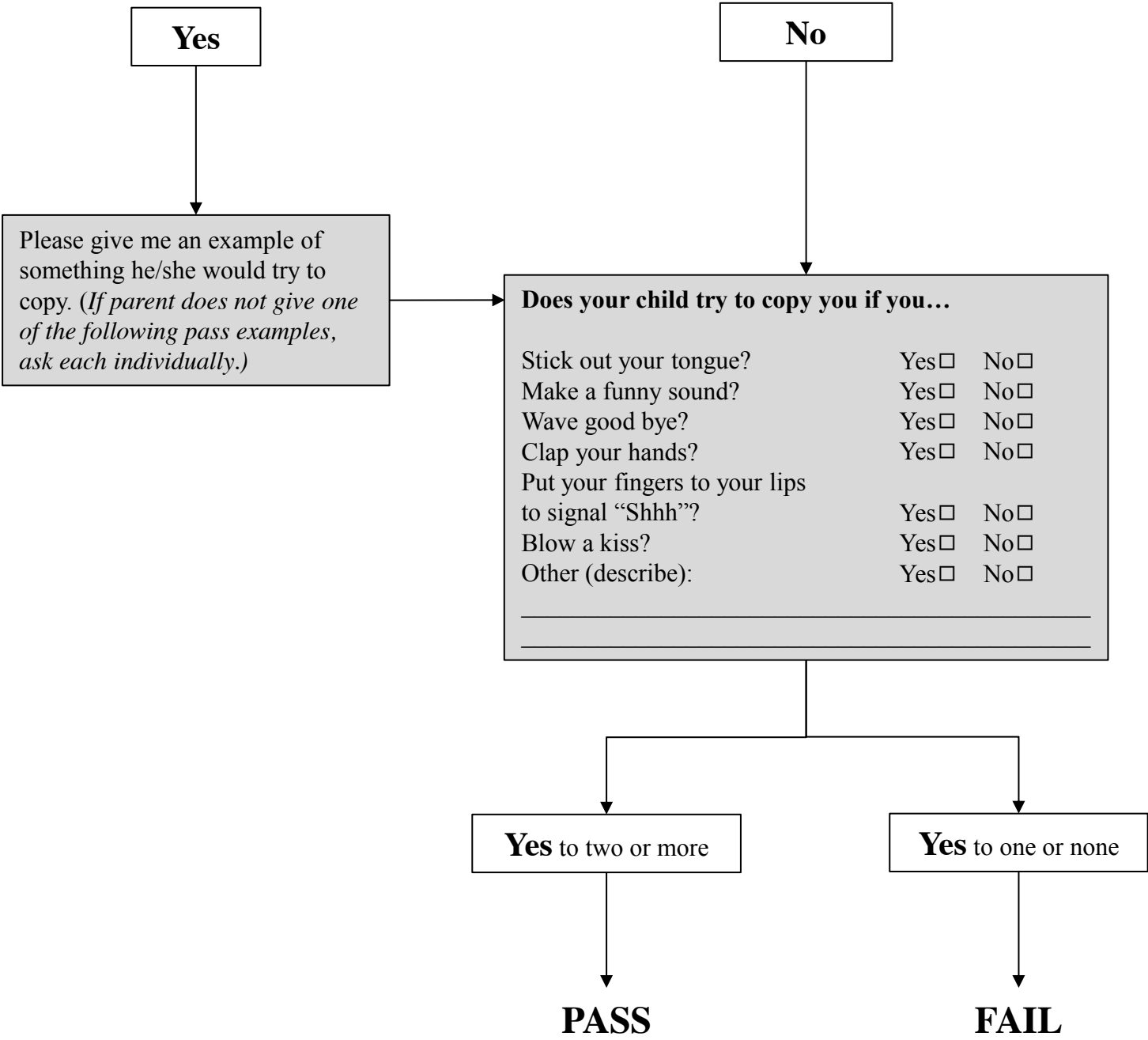
13. Does _____ walk?



14. Does _____ look you in the eye when you are talking to him/her, playing with him/her, or changing him/her?



15. Does _____ try to copy what you do?



16. If you turn your head to look at something, does _____ look around to see what you are looking at?

Yes

PASS

No

What does he/she do when you turn to look at something? (If parent does not give a PASS example below, ask each individually.)

Does your child...
(Below are PASS responses)

Look toward the thing you are looking at?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Point toward the thing you are looking at?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Look around to see what you are looking at?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Does your child...
(Below are FAIL responses)

Ignore you?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Look at your face?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Yes only to
PASS example(s)

Yes to both PASS and FAIL responses

Yes only to
FAIL example(s)

Which one does he/she do most often?

PASS

PASS
response

FAIL
response

FAIL

17. Does _____ try to get you to watch him/her?

Yes

No

Please give me an example of how he/she would try to get you to watch him/her. *(If parent does not give a PASS example below, ask each individually.)*

Does he/she...

Say "Look!" or "Watch me!"?

Yes ☐ No ☐

Babble or make a noise to get you to watch what he/she is doing?

Yes ☐ No ☐

Look at you to get praise or comment?

Yes ☐ No ☐

Keep looking to see if you are looking?

Yes ☐ No ☐

Other (describe):

Yes ☐ No ☐

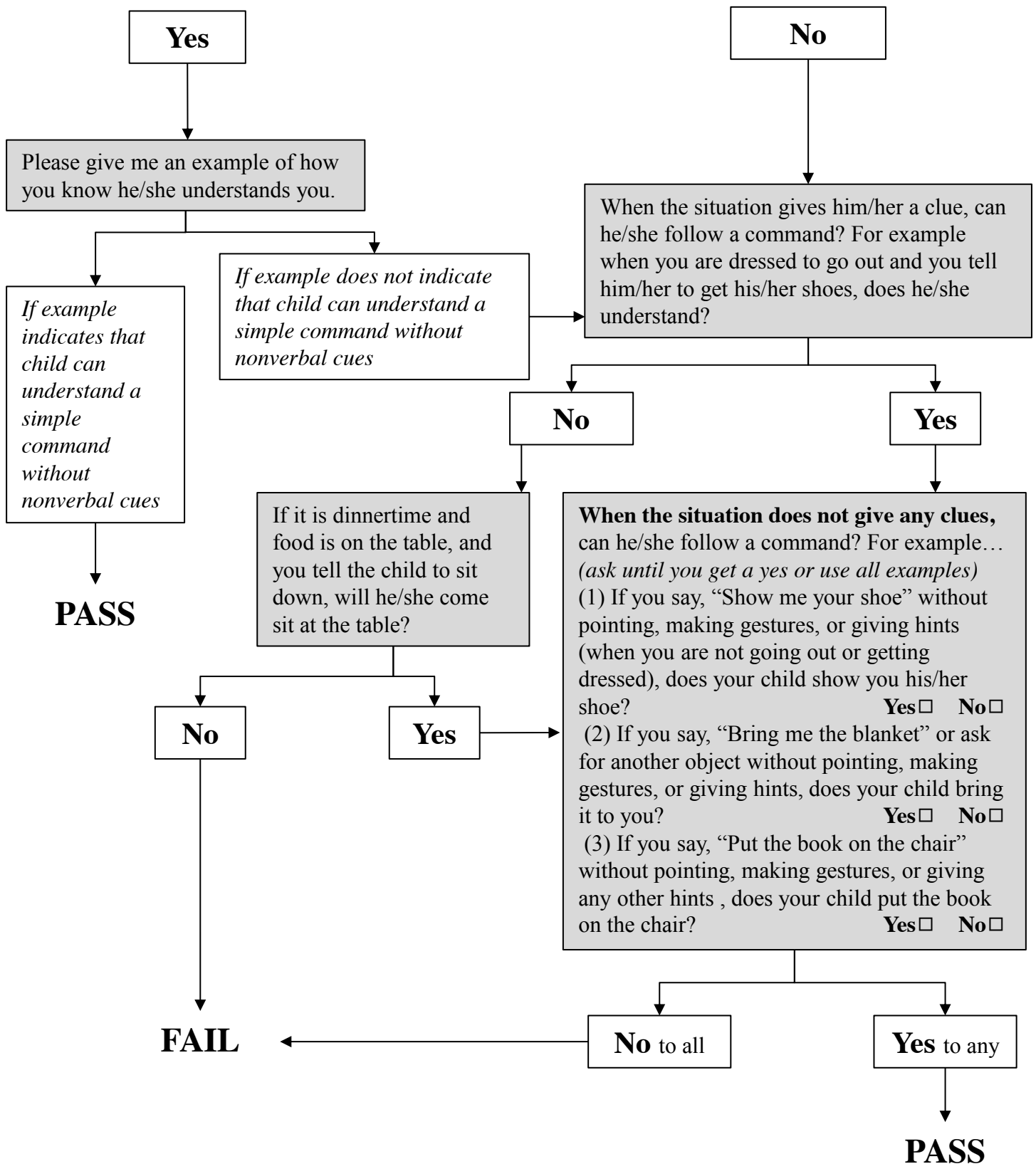
Yes to any

Yes to none

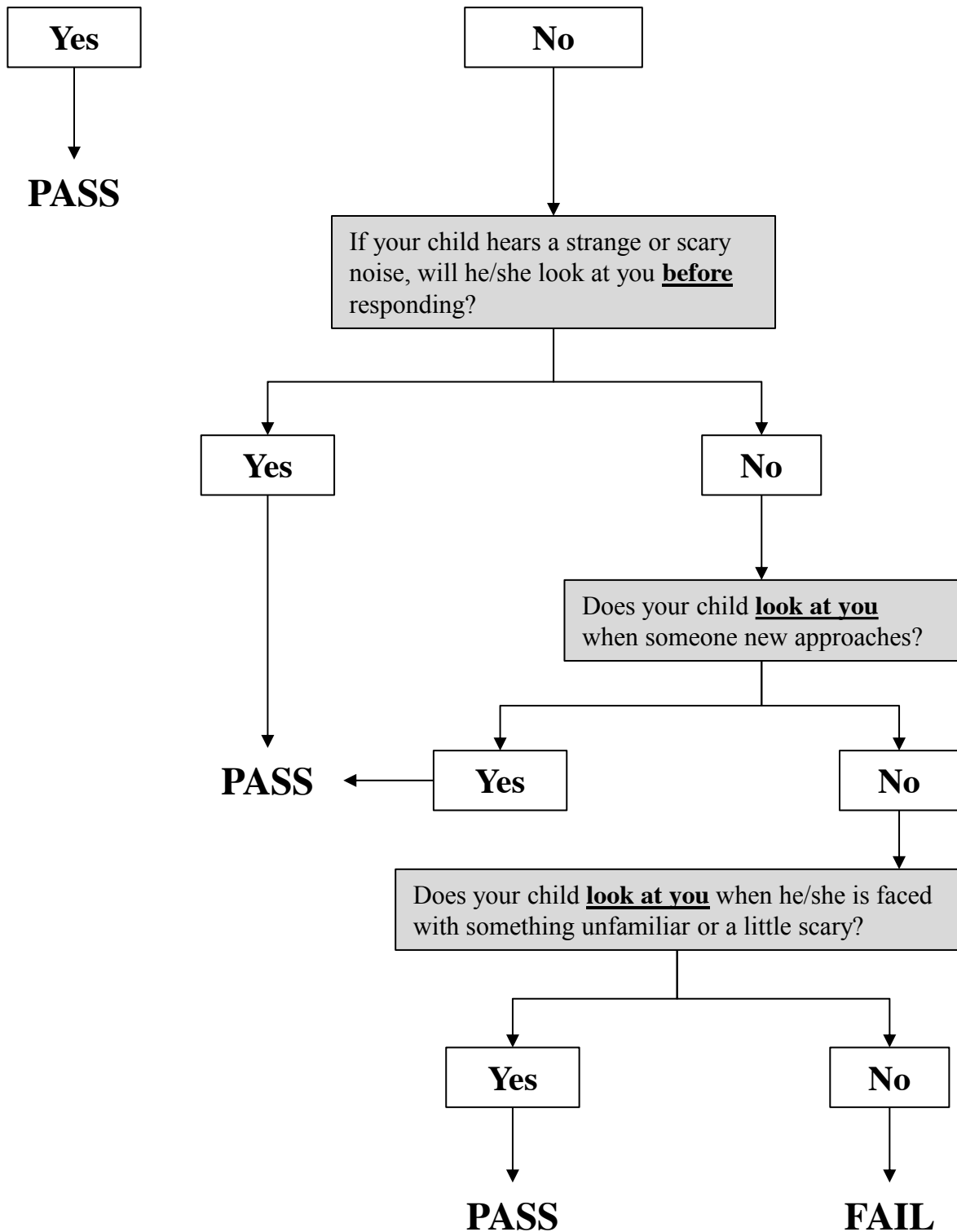
PASS

FAIL

18. Does _____ understand when you tell him/her to do something?



19. If something new happens, does _____ look at your face to see how you feel about it?



20. Does _____ like movement activities?

